JOINT VENTURES IN MIDDLE EAST OIL

1957 - 1972

Paul John Stevens

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Thesis Abstract

The thesis is a study of equity joint ventures between producing country governments and foreign oil companies in the Middle East. These joint ventures became the dominant form of arrangement for producing oil from new acreage between 1957-1972, and after 1972 it was attempted to extend the principle of these ventures to cover the major Middle Eastern operating companies. The thesis attempts to examine the factors which led to, and shaped, the development of joint ventures in Middle East oil, both in the general context, and also in terms of individual countries. Following from this, the effect of the development of these joint ventures on the industry is also considered.

The method by which the above objectives are sought is as follows. An examination is made of the economic and managerial problems which might be associated with the setting up and operation of a joint venture. In the light of these difficulties, all the joint ventures agreements signed between 1957-1972 are examined in an effort to discover what mechanisms are incorporated in the agreements to deal with these problems. This is done not only with respect to different activities in oil such as exploration etc., but also in terms of the general principles of joint ventures. Experience from Egyptian joint ventures is then used to examine how far the agreements have succeeded in solving some of the problems discussed earlier in the context of operating joint ventures.

In this way some aspects of the actual and potential contribution of joint ventures to the development of the oil industry can be assessed. Finally, the findings which emerge from the above analysis are related to an evaluation of some aspects of participation in the form and context in which it arose from 1967 on.

Acknowledgements

In a work of this kind there are inevitably many people who, directly or indirectly, have assisted me during its development. In London, from the School of Oriental and African Studies, particular thanks are due to Professor Edith Penrose whose comments and ideas forced me to think a lot more clearly and rigorously than would have otherwise been the case. Thanks are also due to Dr. Kamal Hameed for many comments and much encouragement. On a more practical level, my thanks are due to the Irwin Fund administered by the Central Research Fund of the University of London for a grant to assist my field studies. Finally, in London, I would like to acknowledge the use of the facilities offered by the Shell Library and the Library of the British Institute of Management.

In Beirut, I would like to acknowledge the invaluable assistance given to me by the Middle East Economic Survey, not only in the use of their files, but also in suffering my inumerable questions. I would also like to thank Professor Zuhayr Mikdashi of the American University of Beirut for reading the manuscript and making suitable comments.

In Egypt, I owe a great deal to the patience and openness shown to me by the staff of the Egyptian General Petroleum Corporation and its affiliated Companies during my field trip to Egypt.

In addition to these people there are many others who have helped me amongst academics, consultants and managers in the industry. While they provided much of the information and ideas, the interpretation and mistakes are of course mine alone. I Would also like to extend my thanks to my many friends all over the Middle East for their

frequent assistance and many courtesies. Finally, a great debt is due to my wife Cassie whose continual encouragement helped me to complete this work.

Paul John Stevens

American University of Beirut,

April 1974.

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Introduction

Three types of joint venture have operated in the Middle East for the purpose of oil production. The first type comprises the operators of the 'old style' concessions who have dominated oil production in the area until the time of writing. The companies which operate these concessions are joint ventures formed by foreign companies. A foreign company is defined as a company which is incorporated outside the host country and is owned and controlled by an owner or owners who are not nationals of the host country. The host country is defined as the country in which the operations are carried out.(1)

The second type of joint venture is the contract agreement(2) in which a foreign company acts as a contractor on behalf of the national oil company of the host country. The contract agreement first appeared in the area in 1966. The third type of venture is the equity joint venture in which one or more foreign companies and the national oil company of a host country share the equity of the operating company. These equity ventures are of two types. The partially integrated venture which is intended to be a profit making company whose function is to find, produce and market oil for its own account; and the operating agency which is intended to be a nonprofit making agency concerned only with finding and producing oil as the agent for the partners.

The equity joint venture[3] is the main subject of this thesis. The area in which these joint ventures will be examined includes Egypt, Iran, Saudi Arabia, Kuwait, Iraq and Jordan. Since Egypt and Iran are the only countries to have actually operated joint ventures, their experiences will provide the bulk of the factual material used.

The purpose of the thesis is to examine joint ventures from two points of view. First, we shall consider the factors which have affected the development of joint ventures. These include the trends which have developed in the industry as a whole, the objectives of both parties to the ventures, andthe limitations to the achievement of these objectives. Secondly, we shall examine the way in which the development of joint ventures have in turn affected the oil industry, including its effect upon the operational aspects of the industry, and its effect upon relations between the foreign oil companies and the host countries.

CHAPTER I

The Background To The Development of The Joint Venture Agreement

The extension of the 'old style' concession[1]

The form of agreement which dominated oil production in the Middle East between 1901-1972 was the concession. This is an agreement between a landlord (the host country government) and a company or individual (the concessionaire). By the agreement, the concessionaire has the right to explore for petroleum in the geographic area 'granted' to him. Some concession agreements automatically gave the concessionaire the right to develop, produce and market any oil discovered on its own account. Other concession agreements required the concessionaire to negotiate a new agreement in the event that oil was found under the initial concession.

The first successful agreement of this type in the area was the concession granted to D'Arcy in 1901 by the Persian Government. In 1908 a great oil field was discovered by D'Arcy and Burmah Oil, and the Anglo-Persian Oil Company (APOC) was formed to develop it.[2] Similarly, in 1911, the Turkish Petroleum Company (TPC) was granted an exploration license for parts of Mesopotamia by the Turkish Government. The TPC shares were held by APOC, Royal Dutch/Shell (Shell) and a German financial and industrial group. After the 1914-18 war, the San Remo agreement of 1920 handed over the shares held by the German group to the French and the TPC became the Iraq Petroleum Company (IPC).[3] The other two major concessions in the area came in Kuwait and Saudi Arabia.[4] In Kuwait in 1933, a concession was granted to the Kuwait Oil Company (KOC) which was jointly owned by APOC and the Gulf Oil Company (GULF).

In the same year, Saudi Arabia also granted a concession to the Standard Oil Company of California (Socal).

Before the start of the second world war, the ownership of the operating companies had begun to change.[5] In 1925, the American companies succeeded, with help from their Government, in securing a foothold in the Middle East when the Near East Development Corporation[6] acquired a 23.75% share in the IPC. After the end of the second world war ownership changes continued largely because the production of crude oil in the Middle East rose rapidly. In 1939 production totalled 112 million barrels and by 1950 it had reached 630 million barrels.[7]

Because of this rapid expansion in supply the operators of the concessions were obliged either to arrange long term contracts for the sale of crude oil, or to take into the ownership of the operating companies new partners who required crude oil. In 1947 the Saudi Arabian concession to Socal was transferred to the Arabian American Oil Company (Aramco) which was composed of Socal, Jersey Standard, Mobil and the Texas Oil Company (Texaco). Mobil had 10% of the equity, the others 30% each. The change in the ownership of the major concession operators was completed in 1954 when ownership of the APOC concession in Iran was transferred to the Iranian Oil Participants Ltd. (the Consortium) as a solution to the 1951 Iranian Nationalization.[8]

Thus by 1954, the concessions were operated by companies which were owned by various combinations of the seven major oil companies.[9] Together, the seven majors controlled 85% of gross crude oil production for the whole world (excluding USA, Canada,

Eastern Europe, China and USSR).[10] Since all the majors were vertically integrated companies, this domination also extended downstream into refining and marketing in Europe and Asia.[11] For the Middle East, if CFP is added to the list, then control of oil production by the majors in 1950 was almost 100%.[12]

The operating companies, as has already been pointed out, were joint ventures. As such, they faced numerous problems in the resolution of different conflicts, in particular over the distribution of offtake. However, an examination of these joint ventures is a study in its own right.[13] Our concern with them is only as the operators of the concession under the terms of the concession agreement since we seek to explain the rise of the equity joint venture as the dominant form of agreement for new acreage after 1960. Thus our interest is with the 'old style' concession agreement rather than its operators.

While the terms of the concession agreement varied, not only, between countries, but also over time, four common features can be identified.

The first feature was the length of life of the concession. The average life of the four main concessions in Iran, Iraq, Kuwait and Saudi Arabia was 82 years.[14] Although the length of life of the concession tended to decline the later the concession agreement was signed, even in 1961, the offshore concession granted to Shell by Kuwait had a life of 45 years.[15] The reason for such a long period was to give the companies time in which to secure for themselves the maximum return for their investment which, at least at the time of signature, involved a high risk.[16]

The second feature was the area of the country covered by the concession. The four main agreements on average covered 88% of the four countries.[17] In addition, with the exception of the Saudi Arabian agreement, there were no clauses which forced the companies to relinquish any part of the area. In the case of Saudi Arabia, there was [illegible] provision for relinquishment by ARAMCO of areas it did not exploit, but at its own discretion. Even so, not until 1948 did ARAMCO agree to a programme of relinquishment.[18] In the other concessions, pressure to relinquish was brought to bear by the host countries in the fifties. As a result of this pressure, coupled with the threat of sequestration, made real in the case of Iraq[19], the companies agreed to relinquish parts of the concession area.[20] Newer agreements incorporated automatic relinquishment clauses.[21]

The third feature of the agreements was the financial provisions, although the details did vary between the different agreements. Before 1950, payment to the host government was a royalty made at a fixed rate per ton. While revenues increased as offtake rose, pressure was put on the companies by the host countries to change the terms of the original agreement to increase revenues which accrued to the host countries. The American companies in Saudi Arabia were the first to acede to this demand, and in 1950 the terms were renegotiated. In future, payment would be made on the basis of a tax of 50% on the profits attributed to crude oil production. This switch to a fiscal system of payment rapidly spread to other countries in the area, although with differences of detail.

The final common feature of the concession agreement was the managerial freedom given to the companies in the development of the concession area. Beyond provisions concerning 'good oil field practice', the companies had sole right to decide the extent of exploration, whether any discovery was worth exploiting, and to what extent it should be exploited. While some moves were made to give the host country the appearance of influencing these decisions, such as allowing government representatives on the Boards of the operating companies[22], the companies were able to retain their control over the concession areas. Of course the host countries could and did exert pressure on the companies to take decisions in the light of the country's interests. Offtake levels in particular was a question over which the countries exerted such pressure, and the companies could only ignore such pressure at their peril. However, the decisions were influenced indirectly rather than by a direct participation in the decision process.

Criticism of the concession agreements

In the period described in the previous section, criticisms related to the four features of the agreements were being voiced by groups within the host countries.[23] These criticisms were based around the 'rigidity' of the agreements and the managerial freedom granted to the companies.

The 'rigidity' of the agreements. The source of this criticism is the idea that the agreements were contracts which contained no clauses which allowed for renegotiation. Yet at the same time the agreements had a long life span, and covered a very high proportion of the available acreage.[24]

At first sight, the criticism appears to be a tautology, since by definition a legal agreement is binding, and therefore rigid. However, in practice, the criticism does have validity. The terms of the original agreement reflected the circumstances at the time of signing, notably the relative bargaining positions of the two sides. Over such a long life span, these initial circumstances were likely to alter drastically, thus the unchanging terms would result in demands being made that the agreements were revised to be more 'appropriate' to the new situation.[25] What the criticism amounts to is that the companies had acquired for themselves a good bargain, and were intent upon maintaining their position. It is in this sense that the agreements were rigid.

The aspects of the operations affected by the 'rigidity' of the agreements were the question of managerial freedom to be examined shortly, the question of relinguishment and the financial terms.[26] As described earlier, there were changes in the existing agreements with respect to relinquishment and financial terms which favoured the host countries. Nevertheless, these changes were produced as a result of considerable conflict, although during the sixties the companies increasingly accepted the idea of renegotiation. An example of this is that the expensing of royalties in 1964 was agreed by the companies in return for host countries allowing discounts off posted prices for the calculation of taxable profits.[27]

Such alterations in terms as occurred were possible without the definition of a concession being changed i.e. the operating company still acted on its own behalf with the Government acting as tax collector. The same was not the case for the question of

Managerial freedom. The source of the criticism that the operating companies had too much freedom of action was the fact that the original agreements limited the freedom of action of the countries with respect to oil operations. The host countries wanted this freedom restored to them.(28)

The host countries wanted greater control for three reasons. Firstly, the host countries wanted to play a greater part in the decisions which affected the extent to which the oil was exploited. This especially covered the decisions concerned with developing fields or altering the level of offtake from existing fields. As oil production and revenues increased, so the economies of the host countries became more dependent on the revenues.(29) In Saudi Arabia between 1966-69 nearly 90% of Government revenue came from oil, and in 1965, oil accounted for more than half the gross domestic product.(30) As the significance of oil revenues in the economies grew, so the pressure increased to allow the host countries greater control over such a strategic sector.(31)

Secondly, the feeling had arisen in the host countries that the oil sector should be directed towards playing a more integrated role in the development of the domestic economy, particularly as an encouragement to industrialization.(32) It seemed logical that this could be more easily achieved if the host country had more control over decisions, for example over procurement. Because the foreign companies' interests extend beyond the frontiers of the producing countries there is no reason why they would be auto-

matically concerned with maximizing local linkages in relation to procurement policy.[33] A further example is the flaring of the natural gas produced as a bye product of oil production.[34] As a result of this flaring, the host countries have been making demands that this gas should be conserved or provided free of charge as a raw material or energy source for local indusry.[35]

The final aspect of the demand for control is the question of politics. The domination of the industry by the majors described earlier, coupled with the presence in the area of the European powers between the wars, led elements in the host countries to feel that their political sovereignty was threatened by the companies. The logical outcome of such an assumption was for the host country governments to reduce the power of the majors by taking greater control themselves. Because of the political competition in the Middle East, both internal and external to the countries, no host country government could afford to ignore this assumption, without risking its own position. Consequently a government may make demands for control purely as a political expedient to secure its own position; either domestically, or to secure prestige in the Arab world.

Conclusion. The terms of the concession form of agreement did alter to meet the changing situation in the fifties and sixties. But as the host countries became more interested in the question of control, so even the modified concession agreement became less appropriate to the new situation. The replacement of the old style concession by the joint venture agreement as the dominant agreement

for new acreage, began in the late fifties. By the early sixties, apart from some Gulf States, no new agreements followed the concession form of agreement. Although the existing concessions continued to dominate oil production, they too came under increasing pressure which culminated in the participation agreements of 1972.[36]

The rise of the joint venture agreement 1957-65

The rise of the joint venture agreement between 1957-65 was the result of four factors. The obsolescence of the concession agreement for new acreage already outlined; the availability of new acreage; the limited ability of the host countries to pursue a course of sole development; and the rise of the new oil companies.

In the late fifties and early sixties, a considerable amount of acreage became available for exploitation outside the control of the existing concessionaires. This development, described earlier, was the result largely of the major concessionaires 'voluntarily' relinquishing acreage.[37] Yet few of the producing countries were in a position to develop the acreage alone.[38] To do so required technology, risk capital, markets etc. While the national oil companies had access to these requirements, the extent of the availability varied considerably between countries. Even where some acreage was explored by the national oil companies, it was apparent that to maximize the development of the acreage, foreign companies would have to be involved in some way.[39] It was in this context that the rise of the new oil companies was important.

Before 1954, with the exception of Gulbenkian's 5% holding in the IPC, all the operating concessions in the Middle East were eventually owned by the majors. In 1955 each American major in the Iranian Consortium sacrificed 1/8th of its holding to permit the division of the resulting 5% between a group of nine American independents.(40) These formed the IRICON agency. This 'break in' by the non majors commenced a process whereby the American, European and Japanese independents began to successfully compete for acreage in the Middle East.(41)

The entry of these newcomers had two effects. Firstly, they created a demand for the new acreage which the host countries were unable to fully develop themselves. An important aspect of this was that the independents were regarded as a welcome counter-balance to the majors. To have allowed the majors to develop the acreage would imply that 'one would strengthen the walls of the prison'.(42) Secondly, because the bids for the acreage were on a competitive basis, and demand was strong, a sellers market for the new acreage was created. When Kuwait opened territory for bids in 1961, there were 13 potential bidders.(43) In 1963, when Iran also invited bids for territory, 30 companies applied.(44) This inevitably meant that the host countries would be able to secure more favourable terms in any agreement signed.

Early in the period 1957-65 only two agreements followed the form of the old style concession, but with terms very favourable to the host country compared to the existing concessions. The Arabian Oil Company (Japanese) which obtained a concession in the Neutral Zone

offered the Kuwaitis and Saudis 57% and 56% of the profits respectively, plus options to each Government for 10% of the operating company.[45] Similarly, in 1961 the offshore concession granted to Shell by Kuwait gave Kuwait an option of 20% of the operating company.[46] Both agreements contained relinquishment clauses.

However, in 1957, two new agreements were signed between Ente Nazionale Idrocaburi (ENI) and Egypt and Iran which were the first joint venture agreements in the area. These agreements, as will be described later[47] seemed to allow the entry of a foreign company, at the same time giving the maximum opportunity for the requirements of the host countries to be met, particularly with respect to control. Because these agreements appeared to fulfill the requirements of the host countries[48] at a time when the competing bidders were prepared to pay well for acreage[49], they rapidly became the dominant form of agreement for the development of new acreage. Of the 19 new oil agreements signed in Iran, Saudi Arabia, Kuwait, Iraq and Egypt between 1957-65, two were concession agreements and seventeen were joint venture agreements.

CHAPTER II

The Evolution of Joint Venture Agreements

Egypt

The development of the oil industry in Egypt before 1953

Three aspects of Egypt's oil experience before 1953 are relevant for the later development of joint ventures.

The first aspect was the failure of the industry to discover oil in quantities sufficient to meet the growing domestic demand. In 1953, the largest oilfield in production was the Gharib field,[1] which in the same year produced only 8.5 million barrels.[2] Table 2.1 below illustrates this low total production, which together with rising domestic demand led to an increasing deficit between domestic oil production and consumption.

Table 2.1 Production, and consumption of petroleum products in Egypt for selected years 1910-1960 (Million Barrels)

Year	1910	1920	1930	1940*	1950	1960
Consumption	.86	.94	3.83	6.32	20.67	34.91
Production of Crude	.12	1.01	1.98	6.76	16.27	22.73
Balance	-.74	+.07	-1.85	+.44	-4.40	-12.18

* Figures for 1940 are distorted by the wartime situation.

Sources: Petroleum op.cit Tables 8-1 p. 535-6
8-15 p. 552-3.

Table 2.2. Joint Venture Oil Production in Iran 1962-1971

(Million barrels)

	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
SIRIP	.3	5.4	9.2	6.0	6.5	7.5	6.6	9.7	11.6	20.8
IPAC	-	-	1.2	16.0	22.0	36.6	37.5	37.9	33.8	45.5
LAPCO	-	-	-	-	-	-	5.0	43.5	52.0	49.2
IMINOCO	-	-	-	-	-	-	-	5.6	20.2	21.5
TOTAL	.3	5.4	10.4	22.0	28.5	44.1	49.1	96.7	117.6	137.0

Source: Iranian Oil Journal. House magazine of NIOC.
Relevant years.

The second aspect was the continued involvement of the Egyptian Government. Five times after 1906, (3) in 1910, 1920, 1937, 1948 and 1953, the Egyptian Government made major alterations to the laws which governed the granting of exploration and development licenses.[4] The purpose of the alteration has usually been to try to encourage an expansion in the rate of exploration. By the 1948 law, the Government attempted to Egyptianize the industry by allowing only Egyptian owned companies to hold exploitation licenses.[5] More direct involvement in the industry took the form of the Government itself exploring for oil. This led to the discovery of the Abu Durba field in 1921.[6] At no time in the development of Egyptian oil have the companies had complete managerial freedom over very large areas in Egypt, as occurred in other Middle Eastern Countries.

The final aspect of the pre 1953 oil development which is relevant for the later appearance of joint ventures was the existence of a large cadre of indigenous skilled manpower in the industry. In 1922 when a small refinery was built at Suez, the labour force of 302 included 300 Egytpians.[7] In 1950 the Anglo-Egyptian oil Company

(AEO), an affiliate of Shell and the largest company in Egypt, set up a vocational training school to provide the necessary training for the local labour.[8] In 1952, over 94% of AEO's labour force were Egyptians while in 1960 the figure was over 97%.[9] Figures of this magnitude are now fairly commonplace in Middle East operating companies, but such figures were common in Egypt from early in its oil development. As early as 1937, the government made it compulsory by law that at least 90% of the labourers and 50% of the staff of any lessee would have to be Egyptians.[10]

The development of the General Petroleum Authority 1956-1960.

By 1956, the Government machinery which concerned the oil industry was becoming more unwieldly because the control of the industry was spread among various institutions and ministries.

As a result law 135 of March 1956[11] created the General Petroleum Authority to act as a central agency. The GPA took over all the functions of the State in relation to oil which meant granting licences and leases, and monitoring existing operations.

The control of the GPA was vested in its Board of Directors which was to act as the Supreme Authority over oil matters.[12] Six months later, the status of the GPA Board was altered by Law No. 332 of 1956. This restored control to the Ministry of Industry who was to supervise the activities of the GPA Board. For example, under the previous law the GPA's 'advice' on the granting of licences and leases was in fact binding on the Minister. Under the new law the Minister's control was restored. The role of the GPA was expanded in November, 1956 when it took over the running of AEO which had been nationalized as a result of the Suez Affair. Although in 1959 AEO was returned to the ownership of Shell.

The GPA was again reconstituted by Law 167 of 1958.[13] This law endowed the GPA as an independent corporate body with power to cover and be responsible for all petroleum activities in the UAR. The Minister of Industry however retained his right of veto over decisions taken by the GPA. This was modified in 1959 by Presedential Decree No. 2344[14] which confined the GPA to technical and commercial activities, and returned the right to grant licences and leases plus the monitoring of operations to the State.

To a large extent the constant alterations in the role of the GPA since 1956 reflect the uncertainty of the direction in the Egyptian economy as a whole up to the early sixties, particularly in relation to the role of the Government.[15] This uncertainty of direction was also reflected in the development of the first joint venture, the Compagnie Orientale des Petroles (Cope).

The Development of Cope 1952-1960

After the introduction of the Mining Law 136 of 1948, because of the stipulation that any developer must be Egyptian owned, by 1951 all the foreign companies had ceased drilling.[16] In an effort to offset the effects of this, a prospecting licence was issued to the Petroleum Co-operative Society (Coop). COOP had been set up in 1934 by a number of agricultural co-operatives to refine and market oil thereby breaking the monopoly of the foreign companies over Egyptian marketing.[17] Because of its success as a marketer, it was a natural progression for COOP to expand into upstream operations.

Because COOP lacked any experience in the exploration and producing side of the industry it formed the National Petroleum Company (NPC) which included Socal and a Swiss Bank, Bank Hoffmann, to deal with this aspect of the operations. In 1953, COOP was given the concession for the Wadi Feiran field discovered by Jersey Standard in 1947.[18] Later in the same year the International Egyptian Oil Company (IEOC) took over the exploration of COOP areas from the NPC. IEOC was registered in Panama in 1953[19] and the equity was divided 40% to Agip Minararia (AGIP) an affiliate of Ente Nazionale Idrocarburi (ENI), 40% to Petrofina of Belgium and the remaining 20% to American interests. The terms on which LEOC took over from the NPC have never been made public, but Mughraby reports that on a commercial discovery being made it was intended to create a joint venture company with IEOC holding 80% and COOP holding 20%.[20]

In 1955, the Belayim field was discovered and found to be commercial. But when COOP and IEOC decided to implement the 1953 agreement, the Egyptian Government intervened, and demanded a share in the development of the discovery.[21] Two reasons lay behind this decision of the Government. Firstly, in 1955-56, the period of 'free enterprise' in the Egyptian economy was showing signs of being regarded by the Government as being inadequate for development and the ideas of 'state capitalism' were being put forward as an alternative. Secondly, the field was already large by Egytpian standards and it was believed to extend westward offshore into the Gulf of Suez, which suggested to the Government a very large field indeed. Given

the previous involvement of the Government in oil, it was natural that the Government should want to be directly involved in the apparent long desired breakthrough.

The field was to be developed by the joint venture COPE which was created by the Act of Constitution on February 7th, 1957. Cope was to be a partially integrated venture in which IEOC held 51% of the equity, COOP held 20% and the GPA 29%. The actual agreement which created COPE has never been published, but since a commercial discovery had already been made, and the legal situation in respect of development leases was clear from the 1953 Law, a complex agreement was not required. The only matter which needed clarification was how IEOC's outlays between 1952-1957 were to be paid for. Despite the apparently simple situation which the agreement had to deal with, the agreement was badly written, and caused a considerable number of difficulties in the later development of COPE.

In 1959, COPE as an independent company was granted prospecting licences on 13 areas. These licences were to last for eight years, but would be renewed annually. The contract did not include any of the exploration control devices such as minimum exploration expenditure or rapid relinquishment which were a common feature of later joint venture, agreements.[22] Also, because the contract was with COPE as a whole, the risk of exploration did not fall soley upon the foreign company but was shared by both parties. The whole contract was rather loosely written and the only new feature was an increase of royalty to 20% on the first half of the development block, and 30% on the second half of the block.

In April 1961, Agip bought Petrofina's share in IEOC to avoid sequestration of the whole company as a result of events in the Congo.[23] In November of the same year IEOC yielded 1% of the equity of COPE to the GPA thus creating an equal division of the equity.[24]

The decision to encourage foreign investment in oil

The decision to secure further foreign assistance in the oil industry was taken in the early sixties. Since at this time the Egyptian Government had begun to nationalize private firms,[25] and had in May 1960 limited the right to develop the Western Region oil to Egyptian companies, some explanation of this apparently paradoxical decision is required.

An official explanation was made by the then Minister of Industry, Dr. A. Sidqi at the time of the signing of the 1963 joint venture agreements to be outlined shortly. In this statement Dr. Sidqi outlined four reasons why foreign investment had been allowed into Egypt. Firstly, to avoid risking valuable foreign exchange in the very uncertain field of exploration. Secondly, the development of an oil industry required heavy capital investment at a time when other sections of industry and agriculture were competing strongly for the same resources. Thirdly, large amounts of oil were needed immediately to provide an energy base for other industrial sectors, and finally, if large quantities of oil were found, the possibility might arise that Egypt would require the experience and assistence of the foreign company with respect to marketing.

Behind these four reasons lay two factors of paramount importance, the failure of the General Petroleum Company (GPC) to find sufficient oil and the balance of payments problem.

The GPC[26] was formed in 1957 to act as the operating company for the GPA. Its capital was LE 6 million, and in July 1957 it acquired 63 exploration blocks. By 1960 Le 23.6 million had been invested by the GPC which had resulted in only 1.3 million barrels of oil being produced.[27] As a result the policy of sole development pursued by the GPC was reviewed and it was realized that if large reserves of oil were to be found, a great deal of investment would have to be undertaken, much of it in badly needed foreign exchange.

The second factor was the growing balance of payments difficulties faced by Egypt. Crude oil and petroleum products were an increasing element in the import bill.[28] In 1955, 37% of the balance of trade deficit could be accounted for by imported crude and petroleum products. In 1960 the figure was 54%.[29] At a time when the first five year plan projected a growth rate of 14.6% per annum for industry, it was obvious that oil would be an even larger part of the import bill. Foreign investment not only might discover oil to reduce these oil imports, but it would also provide the foreign exchange needed for exploration.

However, although there was interest expressed by foreign companies to explore; after the nationalization of the early sixties[30] the bidders for acreage rapidly lost interest.[31] As a result, very good guarantees would have to be given to any foreign company before

they would be prepared to risk capital in Egypt. Late in 1962 it was announced[32] that the United States Government had concluded an investment guarantee agreement with Egypt which enabled the United States Government to insure private American investment against non-commercial risk. At the time of reporting the agreement, MEES described the Egyptian press as 'notably silent' on the subject; despite the Egyptian Government's reluctance there was little option if the necessary foreign investment was to be secured.

Once the decision was taken to encourage foreign investment the question arose as to what form this investment should take. The old style concession was completely unthinkable for political reasons, and since a joint venture was already in existence i.e. COPE, further joint ventures seemed to provide the solution.[33]

The 1963 joint venture agreements

In 1963 Egypt signed three agreements, one with IEOC, one with the Pan American Oil Company (Pan Am)[34] and one with the Phillips Petroleum Company UAR (Phillips).[35]

The first agreement with IEOC gave IEOC areas in the Delta and the Red Sea.[36] IEOC was to incur all the risk of exploration and to bear all the expenditure in the event of no oil being found. IEOC was obliged to spend on exploration a minimum of $20 million in the first twelve years, of which half had to be spent in the first four years. The contract was to be 30 years, renewable for 15 years. However, IEOC had to relinquish 25% of the area after the fourth year, a further 25% at the end of the eight year and 90% of the remaining area after the twelvth year. After the 22nd year all undeveloped areas had to be returned.

When commercial discovery had been made, the agreement introduced a novel feature to joint venture agreements. Although the joint venture which would operate any find already existed, i.e. COPE, it would not take over the development and production of the discovery immediately. Instead, IEOC was to develop the field and to receive all the oil. Once the field began to show a profit after IEOC had recovered all expenditure then COPE would take over operations.

The other two agreements of 1963 introduced the idea of operating agencies. The Pan-Am agreement leased 73,000 sq.km. in the Western Desert to Pan-Am for nine years, with options to renew for 15 years. In this period Pan-Am was to expend at its own risk $17 million in the first nine years on exploration, of which $5 million were to be spent in the first three years. The area was to be relinquished at a rate of $\frac{1}{3}$ every three years. If commercial oil was found, then an operating agency known as the Fayoum Petroleum Company (FAPCO) would be set up with the equity divided equally between the two parties, who would also provide all FAPCO's expenses. FAPCO would itself own nothing, but simply act as the owners' agent to produce oil. This oil would be divided at the well head between the two partners who could then dispose of it as they wished. Pan-Am would recover half its exploration expenditure from EGPC[37] after commercial discovery.

The agreement with Phillips followed a similar pattern with Phillips acquiring 96,000 sq.km. of the Western Desert for 12 years. Phillips was to spend on exploration $3 million in first

3 years, $3 million in the next 3 and $4 million in the following four years, and in the 11th and 12th year $25,000 per exploration block retained. The rate of relinquishment was to be 25% after three years, a further 25% after six years, and 40% in the tenth year. The operating agency to be formed if commercial oil was found was to be the Western Desert Petroleum Company (WEPCO).

The Development of the Joint Ventures

COPE 1960-1967

In this period, the development of COPE was dominated by problems and conflict which arose from the problems of finance organization and nationalization.[38]

Despite its early promise, Belayim failed to live up to expectations, and while it became a large producing field by Egyptian standards, it never provided the solution to Egypt's oil shortage. Under the agreement which was signed in 1963, IEOC carried out its exploration obligations but failed to find commercial oil. In 1967 gas was discovered at Abu Madi in the Delta, but EGPC decided to develop this alone since IEOC showed little interest.

In 1962, COPE was nationalized as part of the programme of increased state control over key sectors of the economy which had begun in 1961. In an effort to resolve the outstanding disputes, an agreement was signed in 1966 between IEOC and EGPC,[39] but had little time to be of use, since in June 1967 when Israel took Sinai they also took Belayim, COPE's only field.[40] While IEOC continued to explore under the terms of the 1963 agreement, their interest was minimal, and no further acreage was sought by IEOC. In 1973 the Continental Oil Company acquired 50% of IEOC's rights in the Delta concession.

Despite the disappointment of COPE, its development provided Egypt with invaluable experience. As will be seen later, COPE made many of the mistakes and suffered many of the problems which are now associated with the creation and operation of a joint venture. Because of this previous experience, the other two joint ventures were able to avoid many of the difficulties and pitfalls which characterized the history of COPE.

Gulf of Suez Petroleum Company (GUPCO) 1966-1972

In 1964, a further joint venture agreement was signed with Pan-Am which gave Pan-Am exploration leases on 6,500 sq.km. in the Gulf of Suez. This agreement was similar to the one signed in 1963, although because the acreage promised more than the 1963 acreage, exploration obligations were higher. Pan-Am agreed to spend a minimum on exploration of $27.5 million in nine years of which $10 million was to be spent in the first two years. Upon commercial discovery, GUPCO was to be set up as an operating agency, but to save on overheads would have the same staff, offices etc. as FAPCO.

Exploration began under the two agreements, and 1965 the El Morgan field was discovered in the Gulf of Suez. As a result GUPCO was formed in 1966 and the first oil was shipped in the middle of 1967. In June 1967 an unexpected benefit accrued to Egypt because of the nationality of its foreign partner in Gupco. If Pan-Am had not been of American nationality then the El Morgan installations would probably have been victim to Israeli attacks. Although further exploration was halted, and there were more problems over reallocating offtake,(41) the oil continued to flow.

Further small discoveries were made in the Western Desert on which basis FAPCO was formed. In 1969 a further joint venture agreement between EGPC and Pan-Am was signed which gave Pan-Am 28,000 sq.km. of territory in the Western Desert and along the Nile. This new agreement was very much a reflection of the fact that relations between Pan-Am and EGPC had been 'Productive' co-operative and mutually beneficial'.[42] The exploration period was eight years in which Pan-Am was to spend a minimum of $15.5 million. Of the area, 40% was to be relinquished after four years, 30% after six years and 20% after eight years. The form of the agreement was much the same as earlier agreements, except Pan-Am agreed to provide all the capital needed to develop any find, being repaid in crude oil from EGPC's share. Also the 15% royalty for the first time was to be fully expensed.

By 1972, although no commercial oil had been found by Pan-Am in the 1969 areas, considerable gas finds were made at Abu Ghanadiq which are to be developed by GUPCO.

WEPCO 1967-1972

The development of WEPCO has followed much the same sort of pattern as GUPCO. The first commercial discovery took longer than the Pan-Am discovery, and WEPCO was not formed until March 1967 on the basis of Phillip's discovery at El Alamein. Despite some other discoveries, notably at Al Milihan, the discoveries have been relatively small. In 1971, Phillips, with the agreement of the EGPC transferred 25% of its 50% interest in WEPCO to the Spanish oil company the Cia. Hispancia De Petroleos S.A. (Hispanoil).

The development of EGPC 1960-1972 and other agreements

By 1960, the direction which the economy was to take was becoming clearer as key elements of the economy were nationalized in the early sixties. All companies in the oil industry were brought into the public sector. This process was completed in 1964 when COOP was nationalized. In 1961, all the foreign oil companies also had to allow a majority of the equity holding to go to the Government. By 1964 Shell and BP interests were completely nationalized after $27.6 million compensation was agreed upon with the Egyptian Government.(43)

To control and co-ordinate all these companies, some form of central agency was required, and in 1962 the GPA was altered to fulfill this role and was renamed the Egyptian General Petroleum Corporation (EGPC). EGPC was to act as a holding company which was to own the majority of the equity (if not all the equity) of the nationalized companies.(44) By virtue of this central position, EGPC was to be responsible for planning, co-ordinating and executing all aspects of policy which related to the industry in Egypt. Control over EGPC's policy lay in the Board of Directors which consisted of the Chairman and General Manager of EGPC, plus the Chairman of all the affiliated companies and two directors appointed from the Ministry. Control by the Government over the Board of EGPC came from two sources. The Ministry of Planning allocated the oil sectors' financial resources,(45) while the Ministry of Industry held the right of veto over the Board's decision.

The central position of BGPC in the oil sector was further strengthened when the State's functions of granting licences and leases were given to EGPC together with the general supervision of the companies previously carried out by the Ministry of Industry.

Apart from the agreements described earlier, two other agreements were also signed by Egypt in this period.

In 1972 a further joint venture agreement was signed. This agreement gave Transworld Oil Company 20-24,000 sq.km. of onshore and offshore areas. The terms were the same as the earlier joint venture agreements setting up an operating agency. In the event of a commercial discovery. Transworld was to spend $23 million in nine years on exploration. The only new feature of the agreement was that revenue, which included a 50% income tax on Transworld's profits, was to be based on the realized price or on a posted price less 10%, whichever was higher. As part of the agreement another agreement was signed whereby Transworld was to participate in a $25 million project to recover gas from GUPCO's El Morgan Field.[46]

The other agreement which was signed in May 1970 departed from the joint venture form of agreement. The agreement with the North Sumatra Oil Development Co-operation Company (NOSO)(Japanese) resembled the Indonesian style contract agreement. NOSO was to explore 100 sq.km. offshore of Ras Gharib in the Gulf of Suez, and in three years was to spend a minimum of $3 million. If no oil was found NOSO would withdraw after three years. If commercial oil was found then NOSO was to act as a contractor for EGPC over a fifteen year development period. Of the offtake, 40$ was to be put aside to cover all NOSO's expenditure with any balance being sold by NOSO on behalf of EGPC. Of the remaining 60%, 69.5% was to go to EGPC and 31.5% to

NOSO, although if production exceeded 50,000 b.d. then NOSO was to receive only 25%. The operation would be controlled by NOSO. The advantage of this agreement from Egypt's viewpoint was that it involved them in no expense whatsoever at any point in the operations. After a short time with no success NOSO withdrew.[47]

By the end of 1972, it became apparent that Egypt would have some difficulty to reach the Plan target of 45-50 million tons of oil per year by 1983.[48] As a result Egypt began to seek new agreements by offering acreage on a production sharing basis, with agreements modelled on the EGPC-NOSO agreement of 1970.[49]

Early in 1973, three new agreements were announced:[50] Eastern Resources Ltd of the United Kingdom obtained 10,000 sq.km. in the Western Desert which had previously been relinquished by Pan-Am. Pacific International Inc. (USA) obtained 400 sq.km. in the Al Razzaq area and agreed to spend $3 million on exploration in 39 months. Finally Geoquest of Canada obtained 2,000 sq.km. of offshore Mediterranean acreage with the commitment to spend $13 million on exploration over 8 years.

This was shortly followed by a further four agreements with Mobil, Exxon, Transworld oil and Petrobras (Brazil).[51]

The agreement with Mobil was a production sharing contract for 6,500 sq.km. offshore of the Delta, in an area previously relinquished by IEOC. Mobil was to bear all the exploration costs at $23 million over eight years. In the event of commercial discovery, EGPC was to receive 70% of production up to 150,000 b.d. on a discovery in less than 200 metres of water, 72.5% on production up to 200,000 b.d. and

75% on production above that. If the discovery was in greater than 200 metres of water, EGPC was to receive only 65% of the offtake. In addition there was a signature bonus of $2.5 million and a production bonus of $6 million. EGPC was to repay its share of the exploration and production costs in crude oil.

In the other three agreements, Exxon obtained 15,000 sq.km. of offshore Meditterranean acreage, on which $50 million was to be spent on exploration over 12 years ($18 million in the first four years). Transworld obtained 100 sq.km. of offshore acreage for a signature bonus of $125,000, and a commitment to spend $5.6 million on exploration over four years. Finally, Petrobras obtained 18,000 sq.km. in the Nile Delta and the Western Desert on which they were committed to spend $14.4 million on exploration in eight years.

These agreements introduced a new policy by EGPC with respect to the form of the agreements. Those agreements which covered onshore acreage were joint venture agreements of the operating agency type, while those which covered offshore acreage were of the production sharing type of agreement. The reason for this division arises from the fact that offshore exploration is more expensive than onshore, and therefore the companies require the incentive of greater reward. At first sight the production sharing formula appears more favourable to the foreign companies than the joint venture formula. Since the foreign company also acts as the contractor, it also involves Egypt in less resource commitment than the joint venture arrangement.

A further agreement followed these agreements with Deminex of West Germany. The agreement(52) covered 2,000 sq.km. offshore in the Gulf of Suez. Deminex was to spend $22 million on exploration over eight years. Upon commercial discovery 40% of the offtake was to be takenby Deminex to cover costs, while the remaining 60% was to be shared with EGPC, on much the same basis as the EGPC-NOSO 1970 agreement.

That so many foreign companies were prepared to sign agreements with Egypt, two of them majors, is indicative of the 'administrative' success of GUPCO and WEPCO. Also the advantages of relatively rapid relinquishment can be seen since many of the agreements covered acreage which had already been relinquished.

Iran

Iran was the only other country in the area, apart from Egypt, to have developed oil through a joint venture at the time of writing. From the standpoint of the effect of joint ventures on the oil industry 'the changes pioneered by Iran are of great importance, not only for Iran, but also for the Industry generally'.(53) Iran also has more in common with the other major oil producers than Egypt.(54) Both these factors are likely to make the Iranian case more representative than the Egyptian case with respect to the effect of joint ventures on the industry.

The Development of the National Iranian Oil Company (NIOC) 1951-1957

In May 1951 AIOC was nationalized.(55) In order to provide an alternative administration for the operations, the Iranian Government set up NIOC, although such an organization had been

authorized by law as early as 1947. In October 1954, the dispute was eventually resolved and NIOC became the owner of all producing, refining and auxiliary installations owned by AIOC before nationalization. Two companies were created, the Iranian Oil Exploration and Producing Company and the Iranian Refining Company, which were Netherlands Corporations, but registered in Iran. These Companies (collectively known as the Consortium) were to operate the properties 'on behalf of Iran and NIOC'.(56)

NIOC was to own the oil produced, but was to sell it to Trading Companies set up by each member of the Consortium. Also NIOC had the right to appoint 2 out of the seven members of the Board of Directors of each of the two companies which formed the Consortium. However, the 1954 agreement gave to NIOC only 'the shadow of control, not the substance'.(57)

Outside of the 100,000 sq.miles granted to the Consortium, NIOC could carry out or delegate any operation it wished. In 1954, NIOC had control of the Naft-i-Shah producing field, and a small (3,500 b/d) refinery at Kirmanshah. However, the important fact was that the potential institutional framework had been created to further Iran's aspirations with respect to oil.

The aims of NIOC after 1954 were broadly twofold, both of which were interlinked. Firstly, there was the desire to secure a greater participation in the development of Iranian oil.(58) This aim was a natural progression from the decision to nationalize Anglo-Iranian in 1951, but the idea was to achieve the aim in a more gradual fashion than was attempted in 1951. Linked to this was the second aim which was to provide Iran with the institutions,

equipment and experience whose absence, to a certain extent, contributed to the failure of the 1951 nationalization. In effect, 'nationalization launched Iran on a programme of self help'.(59) As a result plans were laid by NIOC for the development of refineries, oil transportation etc(60) in order to provide the services absent during nationalization.

In 1951 the operating arm of NIOC the Iranian Oil Company (IOC) had been created, and some exploration had been carried out by Swiss and American concerns under contract to IOC.(61) In mid 1955, IOC's exploration effort was increased, and in August 1956 oil was discovered at Qum. However this discovery, contrary to early shows, failed to live up to expectations. Consequently, Iran was faced with a situation similar to the one which faced Egypt in the late fifties and early sixties with respect to sole development, but on a larger scale. The Consortium had control of 100,000 sq. miles of territory which left NIOC with about 500,000 sq. miles in which to explore for and develop oil.

Obviously, to develop such an area alone would not only be very expensive, but, as indicated by the failure of the Qum discovery, also very risky. This problem also came at a time when Iran was attempting to make up the financial losses incurred between 1951-54, and to institute large scale development programmes at the same time. These factors together made it clear that if NIOC's aims were to have any hope of being achieved, foreign investment would have to be involved in some way. To allow foreign investment under an old style concession was politically unthinkable after the experience between 1951-54 which left the alternative of joint ventures

or contracts. In 1957, the Petroleum Act created the legal framework for NIOC to enter either form of agreement.

In the 1957 Act, the task of NIOC was to 'extend as rapidly as possible ... the research, exploration and extraction of petroleum through the country.'[62] To achieve this objective, NIOC's functions were broadened by the Act to include features of the States' control of the oil industry, such as the right to grant acreage for exploration and development. Areas outside the control of the Consortium were divided into districts not greater than 80,000 sq.km. in which exploration was to take place. To permit the use of foreign investment, NIOC could form with a foreign company a 'mixed organization' in which NIOC was to hold a minimum of 30% of the equity. To avoid 'monopoly' and to assist the prompt development of these areas, no company could have a block greater than 160,000 sq.km. in any one area. Of this area, at least half must be returned after 10 years. While the Government was not to be a party to the agreements which set up these 'mixed organizations', Article 2 of the Act required that the Government had to 'approve' any such agreements made.

The 1957 Agreement with Agip

Immediately after the publication of the 1957 Act in July, the first of the 'mixed organization' agreements was announced. with Agip. Without doubt, Enrico Mattei[63] of ENI had worked long and hard to secure the Agip-NIOC 1957 agreement. A state visit of the President of Italy had been 'arranged', and it was even alleged that Mattei had offered a Princess of the House of Savoy to the Shah as a wife![64] The agreement gave Agip exploration rights

in 23,000 sq.km., consisting of three blocks North of the Persian Gulf, on the Eastern slopes of the Zagros Mountains, and along the Gulf of Oman. The relinquishment of the area was to be as follows. Twenty-five percent of the area was to be returned after the fifth year, and a further 25% returned after the ninth year. After the twelfth year, all remaining areas were to be returned. During the twelve years the exploration licence lasted, Agip was to spend a minimum of $22 million on exploration. $6 million of this was to be spent in the first four years. If no oil were found, then Agip bore the loss alone. Once commercial oil had been found, Agip and NIOC were together to form a partially integrated venture called the Société Iran-Italienne des Pétroles (SIRIP). SIRIP was to have a life of twenty-five years, renewable three times for a further five years each time. The initial capital of SIRIP was to be held in equal proportions by the two partners. SIRIP, like its counterpart in Egypt, was envisaged as an independent company. The crude oil was to be disposed of by SIRIP on the world markets, and the object was to 'raise to the maximum the sale of oil, using all possible efforts'.(65) SIRIP would have exclusive use of the income earned. In addition, SIRIP was allowed to borrow any of its financial requirements in the world money markets, although if the financial terms were 'not favourable' then the two partners had to supply the necessary funds.

When details of the agreement were announced, there was a tremendous adverse reaction from the major oil companies. For some time afterwards the rumours surrounding ENI and the agreement abounded. It was announced that the majors had offered ENI a share in the Iranian Consortium in return for abandoning the agreement.(66)

The State Department was reputed to be putting considerable pressure on the Italian Foreign Ministry, which was promptly denied by the Foreign Minister. It was even rumoured that the Iranian Government was in imminent danger from the CIA.

The reasons why there was such a reaction are more difficult to identify. Only six months before, the similar AGIP-EGPC 1957 agreement, was announced with very little comment from anyone. There are two obvious explanations. Firstly, Egypt was regarded by the majors as fairly open territory while Iran was regarded, together with the other major producing countries, as the special preserve of the majors. Thus, the later agreement was regarded by many as a victory for Enrico Mattei against the 'seven sisters'(67) with whom Mattei had had a running feud since the battle over the Po Valley gas in 1952.(68) Secondly, and more importantly, apart from injured pride, the new agreement posed a more serious threat to the majors, not only in Iran, but throughout their major concessions in the Middle East. The terms of these Middle East Concessions were based very much upon a series of precedents. Once a precedent had been accepted in one country, within a short time it was generally accepted. The adoption of the 50-50 'profit' share in Saudi Arabia provides a good example. On the face of it, this new agreement created two very significant precendents. Firstly, it gave the producing country an apparently equal controlling interest in the operations of the company. Secondly, it apparently introduced a new profit, division of 75-25 in favour of the host country. While this profit split was misleading, as will be shown later, it appeared that

dangerous new precedents had been set. While the same was true of the Egyptian agreement, since Egypt was not a major producer it could not be responsible for the setting of such a significant precedent.

Despite the reaction at the time of signing, the outcome of the agreement proved disappointing. Although there have been numerous discoveries they have not lived up to the announcements. Only relatively small oilfields have been found, notably at Bahr-gansar and at Nowraiz, and SIRIP's offtake has been relatively small.[69]

The Hybrid Agreements of 1958

The first Iranian Venture agreement was followed by a second in May 1958. This involved the Iranian counterpart of Pan-Am in Egypt. The Pan-Am-NIOC 1958 agreement gave Pan-Am exploration rights in 16,000 sq.km. of territory, all offshore. The rate of relinquishment was to be the same as the earlier agreement, but Pan-Am incurred a minimum exploration obligation of $82 million. In addition Pan-Am had to pay $25 million as a signature bonus. The nature of the venture to be set up in the event of a commercial discovery was something of a hybrid between the partially integrated venture and the operating agency. The venture, the Iran-Pan American Oil Company (IPAC), was described as a 'Joint structure relationship' and while many of its characteristics were to be similar to SIRIP, some were different. The venture was to own nothing, ownership being vested solely with the two partners on an equal basis. It was also to be non-profit-making. The offtake was to be offered to the two partners in relation to their equity shares i.e. 50-50, but if one or both sides elected to take less, the balance was to be sold on

their behalf by IPAC. In general the terms were more favourable to NIOC than those in the earlier agreements. For example, transport preference was to be given to Iranian Flag tankers, and the penalties for failing to meet drilling and exploration obligations were heavy.

In 1961 the Darius field was found, followed a year later by the Cyrus field. Latest additions to the IPAC fields include the Fereidon and Ardeshir fields. In fact to date IPAC has been the largest producer of all the Iranian ventures as can be seen from table 2.2 page 15.

Shortly after the Pan-Am agreement, a new agreement was announced with the Sapphire Petroleum Company of Canada. This agreement was identical to the Pan-Am agreement, except it granted a 10,000 sq.km. area both onshore and offshore. Sapphire was to spend $18 million on exploration in the twelve years, and to drill the first well within two years or pay a $350,000 fine. The significance of this agreement was to show that the minimum exploration obligations were to be taken very seriously indeed. In August 1959 it was announced(70) that NIOC had seized the £130,000 deposited by Sapphire in an Iranian bank as 'good behaviour' money. NIOC claimed that in the first year Sapphire had only spent £16,000 on exploration. In 1960 a settlement was announced(71), but relations deteriorated until Sapphire was forced to withdraw in 1961, after paying compensation for failing to fulfill its minimum obligations.

The 1965 Vintage of Agreements

Between 1960-63, because of disputes between Iran, Saudi Arabia and Kuwait over boundaries within the Gulf, no new acreage came into the market. When these disputes were settled, acreage was opened for bidding in the middle of 1963. This resulted in the 1965

vintage of six new agreements. The basic formula for all these agreements was the same. The exploration areas were to be relinquished as follows. Twenty five percent after five years, a further 25% after ten years, and all the areas after twelve years. This represented a slightly slower rate of relinquishment than the previous agreements. Upon the discovery of commercial oil, the parties would set up with NIOC a purely operating agency type of venture for a period of twenty-five years. These ventures were to be entirely dependent on their parents both for offtake sources, and financial assistance. For the first time a royalty was introduced of 12.5% based upon the posted price of the crude. Both partners were also liable to a 50% tax on their share of the offtake, again based on the posted price. A significant innovation in the agreements was the buyback policy. If NIOC did not wish to take its full entitlement of crude, then the foreign partner was obliged to buy this back at a halfway price.

The individual details are as follows. Shell received 6,036 sq.km. for a signature bonus of $59 million, and a production bonus of $28 million. A French group received 5,759 sq.km. for a signature bonus of $27 million, and a production bonus of $2 million. The Atlantic refining group received 8,000 sq.km. for a signature bonus of $25 million, and a production bonus of $6 million. The Tidewater group received 2,250 sq.km. for a $40 million signature bonus, but with no production bonus. A German group consisting of Deutche Endsel and Preussag received 5,000 sq,km. for a signature bonus of $5 million, and a production bonus of $5 million. Finally,

a conglomerate collection consisting of AGIP, Phillips and the Indian Government got 7,960 sq,km. for a signature bonus of $34 million, and a production of $10 million. Overall, the six groups undertook a minimum exploration obligations over the twelve years totalling $164 million. Although the bonuses were all recoverable out of future production, their importance should not be under-rated. Together they meant a boost to Government revenues in 1965 of some $190 million, and since some of the groups were destined not to find oil, part of this could be regarded simply as a windfall gain to Iran. All the potential bidders for acreage had also paid for the cost of preliminary surveys in the acreage costing $3.5 million.

Of the six agreements, by 1972, only two reached the stage of creating joint ventures.

The Atlantic group formed with NIOC the Lavan Petroleum Company (LAPCO) on the basis of the Sasoon field. The Agip, Phillips and Indian Government formed with NIOC the Iranian Marine International Oil Company (IMINCO) on the basis of the Rostam field, adding later the Rakhch field. The figures for offtake are given in table 2.2.

<u>The 1971 Vintage of Agreements</u>

In 1971, three further agreements were announced in which the terms to Iran improved considerably. The period of exploration was reduced to six years, in which 25% of the area would be relinquished after three years, a further 25% after five years, and all areas at the end of the sixth year. The ventures to be set up were to have an operating life of twenty years with options for two five year extensions. The most interesting aspect of the 1971 vintage of agreements was the introduction of taxation on a system similar to the OPEC pattern. Royalty was to be expensed according to the OPEC

formula at 12.5% of posted price, until the foreign companies share of cumulative production reached 5 million barrels when royalty increased to 14%. When the foreign companies share of cumulative production reached 75 million barrels, royalty increased to 16%. Income tax on the earnings of the foreign company were to be assessed at current rates on posted price. The details of the three agreements were as follows. A Japanese group received 8,000 sq,km. for a signature bonus of $35 million, and a production bonus of $10 million, and agreed a minimum exploration obligation of $25 million over the six years. Amerada Hess received 3,100 sq,km. for a $5 million signature bonus, plus $6 million production bonus, agreeing to spend on exploration a minimum of $22 million. And finally, Mobil received 3,500 sq.km. for a signature bonus of $2 million, and a production bonus of $10 million, agreeing to spend $11 million over the six years.

Other Countries

Saudi Arabia

The national oil company of Saudi Arabia, the General Petroleum and Mineral Organization (Petromin) was not formed until November 1962. Its role was intended to be wider than most of the national oil companies, since it was expected to take part in various industrial and commercial activities connected not only with petroleum, but with minerals in general.[72]

Its financial requirements were to be provided by the Saudi Treasury together with loans from the Saudi Arabia Monetary Agency plus any income accruing from the operations.

In the case of Petromin unlike Iran or Egypt, neither securing foreign exchange nor securing domestic fuel supplies have

been a significant reason for entering joint ventures. The first motive of Petromin has been 'diversification of the sources of income to avoid the political and economic risks which may result from dependence on one source, namely petroleum'.[73] In other words, the aim has been to use petroleum as a base from which to create new industries, and also to integrate petroleum activities more fully into the economy.

The constraints which faced Petromin in achieving this objective have been the lack of skilled manpower, coupled with market limitations. The joint venture arrangement would seem to provide these requirements, and of the fourteen new projects or agreements instituted by Petromin by 1968, nine were joint ventures, and four had specific agreements for foreign firms to provide both skilled labour and management.

Petromin entered only three oil producing venture agreements, but they are of interest because they have been responsible for several innovations in the venture agreement formula.

The first agreement was signed with Auxirap[74] in April 1965. This gave Auxirap 26,000 sq.km. of territory along the Red Sea coast in which Auxirap was to spend at least $5 million in the first two years. Upon commercial discovery, a partially integrated venture was to be formed in which Petromin was to have options on 40% of the equity. This agreement had some remarkable features in it when the time involved, i.e. 1965, is remembered. There was to be a signature bonus of $1.5 million with a production bonus of $4 million when production averaged 70,000 b.d. But these bonuses

were non-recoverable, unlike the Iranian bonuses which could be recovered as a cost of production. In addition, there was to be a 15% royalty fully expensed, rising to 20% when production averaged 80,000 b.d. this being based on posted prices. No income tax rate was fixed, but the company would be subject to the normal income tax rate which could be unilaterally altered by the Government. The Arbitration procedures were based entirely in Saudi Arabia.[75]

Finally, there were relatively strict clauses on the conservation of gas, a problem which had become a serious issue in Saudi Arabia because of the wastage practised in the Eastern Province by ARAMCO. This agreement gave to Saudi Arabia a degree of sovereignty and potential control quite unheard of in the middle sixties. Yet, while the agreement raised considerable interest at the time, very little of its innovations were taken up by other countries for a long time afterwards. In 1969 the Tennessee Oil Company acquired a third interest in the area granted to Auxirap, but by 1973 no commercial oil had been found.

In December 1967, the Saudi Government granted Petromin two licences to explore 86,489 sq.km. in the Rub al Khali which had been relinquished by Aramco, and 25,000 sq.km. on the Red Sea Coast. Of this area, 20% was to be relinquished at the end of the third year, and every fifth year after that a further 20% was to be relinquished. Also, Petromin undertook to spend a minimum of $5 million on exploration in the first three years. Immediately, Petromin signed an agreement with AGIP who agreed to undertake the exploration for Petromin in the Rub al Khali on the same terms, paying a signatuše bonus of $2 million for the privilege. The exploration

period for AGIP was to be three years, renewable for a further three years. Upon the commercial discovery of oil, an operating agency venture was to be formed with Petromin having options on 30% of the equity until production exceeded 300,000 b.d. when Petromin would be offered a further 10% of the equity. The life of the venture was to be thirty years, renewable for ten. Production bonuses were to be paid at a rate of $3 million on the granting of an exploration licence, and $8 million when production reached 300,000 b.d. These bonuses, as in the Auxerap-Petromin 1965 agreement were non-recoverable. Royalty was to be 14% of the posted price, again fully expensed, and the tax arrangements were the same as the earlier agreement. Once the venture was actually operating, AGIP was obliged to be responsible for marketing all of Petromin's share, if Petromin wished. However, once production of crude reached 200,000 b.d., both sides were to undertake a study to discover if the venture could go downstream into refining and marketing, thus forming a completely integrated oil company from the original operating agency. The criterion was to be whether the integrated operation would be more profitable than simply marketing crude oil.

There was an interesting adjunct to the agreement. A separate agreement was signed with ANIC, another subsidiary of ENI. This was to set up a jointly-owned company to establish a petrochemical industry with each side investing $10 million. It was tied to the production agreement since if AGIP received no interest in an oil exploitation concession, then the agreement was ended, with ANIC paying the Saudi Government $5 million. In 1968, AGIP assigned 50% of its interests to Phillips, but by 1973 no commercial oil had been found.

At the same time as the AGIP agreement, a similar agreement was signed with a group consisting of the Sinclair Arabia Oil Company, the Natomas International Corporation and the Government of Pakistan. This granted to the group the Red Sea area given to Petromin. The terms were identical to the AGIP agreement, except Petromin's option was on a straight 50% of the equity. In 1968, Sinclair assigned its rights to the Sun Oil Company who became the group operator.

By 1970 no joint ventures had been set up, and after participation in the Aramco concession became probable, Petromin lost interest in further producing ventures.

Kuwait

The national oil company of Kuwait, the Kuwait National Petroleum Company (KNPC), was established in 1960. The company is of particular interest because 40% of its equity was put out to public subscription, thereby making profitability an important factor in the aims of the company. The one Kuwait venture with the Spanish Company Hispaniol was announced as having been initialled in August 1965, and was finally signed in May 1967. The area granted was to be relinquished at a rate of 20% after three years, and a further 20% every fifth year after. Hispanoil agreed to spend a minimum of 16 $\frac{2}{3}$¢ per hectare per month, and also to undertake specific drilling requirements over the first eight years. On commercial discovery, an operating agency venture was to be set up with KNPC holding 51% of the equity. A 12.5% royalty was charged on the posted price, but if there was no posted price, then royalty would be a straight 50 Kuwaiti fils per barrel. Tax was to be 50% of the foreign companies' profits, and the venture was obliged to provide,

free of charge to Kuwait, any incidental gas produced from the operation. As an adjunct to the agreement the Spanish Government guaranteed KNPC 25% of the Spanish crude import market for fifteen years.

From 1965, until the agreement was ratified by the Kuwaiti Parliament, there was very considerable argument over the agreement. The dissent came basically from the private shareholders of KNPC who wanted to pursue a course of sole development. As well as criticising the form of the agreement, they also heavily criticised Hispanoil on the grounds that the company was both untried and unexperienced. The Government side felt the agreement to be useful on several grounds. The oil was expected to be deep, and drilling expensive. Therefore, they felt it better that this high cost risky investment should be borne by someone other than KNPC. The marketing arrangements were also regarded as an advantage, particularly the preference given in the Spanish market. As to criticisms of Hispanoil, the Government representatives simply pointed out that very few companies had bothered to bid for the acreage, and Hispanoil offered the most favourable terms. The argument reached its climax when the agreement was finally signed, and the four private Directors on KNPC's Board resigned. At the time of writing no commercial oil has been found.

Iraq

The Iraqi venture agreement came as part of a package settlement which would have returned to the Iraq Petroleum Company (IPC) the North Rumaila field, in return for a recognition of the legality of Law 80 of 1960.(76) The joint venture agreement was

between the Iraq National Oil Company (INOC) and B.P. Shell CFP, Mobil and Portex. The foreign companies were to have 32,000 sq.km. on which they were to spend on exploration $30 million in the first six years, and $20 million in the next six years. Twenty-five percent of the area was to be relinquished after six years, and a further 25% after nine years. After twelve years, all the area was to be returned. On commercial discovery, an operating agency was to be set up in which INOC was to hold $33\frac{1}{3}\%$. There was to be a 12.5% royalty tax on the OPEC formula, plus a 50% profits tax, both based on a posted price. If INOC could not dispose of its crude entitlement then the other companies would buy it at a halfway price, but not greater than 60% of the posted price. A sole risk clause was also included in the agreement. Although the agreement was never ratified,[77] it was of interest since it was the first time that the 'majors' agreed in principal to accept a joint venture in the sense used in this thesis. In effect it was the first particpation agreement eight years before its time.

Jordan

The Jordanian joint venture agreement was signed in 1968 between the National Resource Authority of Jordan (NRA) and Industrija Nafte Zagreb (INA) (JUGOSLAVIA). The agreement was modelled almost exactly upon the 1963 Egyptian operating agency agreements. INA was to explore 16,000 sq.km. in Wadi Sirhan over six years. If commercial discovery were made then a jointly owned operating agency, the Jordanian Jugoslavian Petroleum Company (JOYUPEC) was to be set up. At the time of writing no commercial oil has been found.

CHAPTER III

The Characteristics of Joint Venture Agreements

The purpose of this section is twofold. Firstly, to examine what the agreements are trying to achieve in relation to the different aspects of oil operations. Secondly, to examine how the agreements attempt to deal with the problems encountered in achieving these aims.

Exploration

The objectives of the joint venture agreements in relation to exploration

The outcome of exploration for oil, as with any form of research is uncertain. This is because there is no way of knowing where the oil is, without spending money on the search, and then finally drilling a well. While the result of exploration is knowledge, the purpose is eventually to find oil in commercial quantities which will justify the expenditure of funds.

The risk of exploration[1] is that large sums of money may be spent which only provide knowledge as to where oil is not. While this may be useful, it does not in itself provide a financial return. Thus, as illustrated in the earlier discussions of why foreign investment in oil was encouraged in Egypt and Iran, there is a high risk of financial loss for any limited exploration programme.

As a result of the uncertainty of exploration, the purpose of the joint venture with respect to exploration is that the risk of financial loss should be borne by the foreign company rather than by the host country. While such a situation is by no means an

innovation[2], that the host country would then participate directly in the fruits of the foreign company's risk taking, was new.

It is however important to qualify the assertion that the foreign company bears all the exploration risk in a joint venture. The foreign company need only bear exploration risks to the limit of its minimum financial obligations, as set out in the agreement. Once these minimum obligations have been reached, if no commercial discovery has been made, the company can withdraw; and in that sense has borne the exploration risk alone. But once a commercial discovery has been made, exploration does not stop. If the foreign company has fulfilled its minimum obligations, then the joint venture continues to explore with the host country providing its share of the risk capital.

Minimum Exploration Obligations

The agreements contain such obligations because of a potential conflict between the host country and foreign company, which arises from their motivations in exploring for oil. The host country seeks the maximum exploration effort in the minimum possible time. Clauses to this effect are usually written into the acts which create the National Oil Companies. Since the product of exploration is knowledge, the greater the effort, the greater the amount of information available. More information reduces the level of uncertainty, and even if the impact of this additional knowledge is small it is a gain, although it may be a very expensive gain.

On the other hand, the motivation of the foreign company can be assumed to be slightly different, and could be stated as the maximum possible commercial results for the minimum outlay.

Information which does not produce commercial results is of limited interest to the foreign company if it must relinquish the area in a relatively short time. The companies may incur a total loss on the operation, while the host country gains from this same information. The difference arises because the exploration in a specific area is usually a once and for all effort for the foreign company, while it is a continuous process for the host country. This difference in time horizons gives rise to a potential clash of interests, and agreements must take it into account. So-called 'encouragement' or minimum obligation clauses are attempts to deal with this problem.

The object of these clauses is to ensure that the foreign company maximizes input into exploration, not only to maximize expenditure and minimize the lag between the signing of the agreement and the date of commercial discovery, but also to maximize the data produced for use by the host country. Various methods have been employed in different agreements, each having advantages and disadvantages.

The signature bonus paid by the foreign company when the agreement is first signed, although not used in Egypt,[3] has been common elsewhere, notably in the Iranian agreements. It has two purposes: to increase revenues and to speed exploration activities. Which of the two is more important depends on whether the bonus is recoverable or not. Where the bonus is non-recoverable it provides no special incentive to speed exploration and can be regarded as a way of increasing revenue for the host country. Where the bonus is recoverable from future earnings, then presumably, it is, ceteris paribus, an incentive to the company to find commercial oil as soon as possible so that it can begin to recover its outlay

on the bonus. The bonus also acts as an advance on revenue to the host country, in the sense that the host country gets an interest free loan if a discovery is made; while if no commercial discovery is made, the host country has at least gained some revenue in the form of the bonus. In the Iranian 1965 vintage of agreements, Shell and the Tidewater group, both of which failed to find commercial oil, paid to Iran $99 million, a sum equivalent to 55% of the Consortiums' payment to Iran in the same year! The signature bonus is intended to reflect the prospects of the area but it has often proved an inaccurate measure.[(4)]

A minimum work obligation in terms of financial outlay and/or the number of rigs to be operated or metres to be drilled, is common to all the agreements. It provides the most direct 'encouragement' to the foreign company to maximize input and minimize the lag. One drawback is the possible lack of flexibility if the obligation is couched in technical rather than purely financial terms. It is of little value to insist that a rig should drill x metres in y months, if the geological data is inadequate to site the well within the y months.[(5)]

A valid point made by F, Parra,[(6)] is that if the foreign company can withdraw before the end of the contract period, then a minimum work obligation becomes meaningless. Some agreements however cover this by forcing the foreign company to fulfill certain obligation before opting out and to pay compensation if there obligations are not met,[(7)] although if those minimum 'withdrawal obligations' are less than the complete obligations (as they usually are), then the force behind the measure is certainly weakened.

There are several ways of encouraging a foreign company to fulfill its minimum obligations as rapidly as possible, for example, in the Pan-Am-EGPC 1964 agreements, royalty on all production is 20% until the minimum exploration input ($27.5) million) has been met, after which royalty becomes 15%.[8] Also EGPC need not make any financial contribution to develop a commercial discovery until Pan-Am has fulfilled its minimum obligations.[9] Together, these make oil production for Pan-Am far less attractive if outstanding exploration obligations exist.

A further 'encouragement' clause provides for rapid relinquishment, whereby the foreign company is allowed to keep an area only for a limited period. While this might be expected to speed exploration, a too rapid rate of relinquishment may well defeat its own end since the company may not have sufficient time to carry out the work properly. How far this is likely to happen depends on the size of the area to be covered and the uncertainty (i.e. the degree of knowledge) attached to the area. The relinquished area may have an enhanced value for the host country since it is an area in which the level of uncertainty has been reduced, and the area can be relet, unless all the evidence is very discouraging. It has been a noticeable feature of the Egyptian agreements that as more information becomes available, smaller areas can be let out, thus permitting a greater input for sq.km.

Provision for surface rentals at the exploration stage serve an objective similar to that of relinquishment, since it becomes more expensive for the foreign company to hold exploration areas. How far this encourages the company to speedup its exploration effort depends

to some extent whether these rentals are recoverable or not. If they are recoverable then they, like signature bonuses, become an advance on revenue and an incentive. Under the Egyptian Mining Law No. 66 of 1953,[10] exploration rentals are changed per sq.km. at LEIO for the first year, LE100 for the second year, and LE25 for subsequent years, although in the Western Desert for the third year and onwards the rental is only 25% of the normal rental.[11] There are also provisions to increase the rental if no rig is operating. The effectiveness of this method for speeding up exploration is doubtful, partly because it may divert company finance from the exploration effort, and the idea was dropped in Egypt after 1959.

The Significance of the Definition of Commercial Discovery

Because the exploration stage is separated from subsequent stages, defining exactly when the exploration stage is finished becomes extremely important. The importance arises because during the exploration stage, only one interest takes the decisions and incurs the risk, i.e. the foreign company. In the subsequent stages, another interest enters the operations and begins to share the obligations, i.e. the host country.

Commercial discovery, which signifies the end of the exploration stages, means both sides gain advantages and incur responsibilities. An accurate definition on "commercial discovery" safeguards the interests of both parties, and for that reason is of some importance.

On commercial discovery, the host country is committed to putting both capital and management into the venture. It must also begin to repay its share of the exploration expenses incurred by the foreign company. In some agreements, if the foreign company has

fulfilled its minimum exploration obligations then the host country must also begin to contribute its share of the risk capital needed for further exploration. The host country must also prepare itself in the operating agency type of agreement to become an offtake of crude oil.

The foreign company incurs further expense in providing for its share of development costs, at the same time accepting the entry of local management into the running of the operation. The conversion of exploration blocks to development blocks means that less of the area has to be relinquished but with no commercial discovery the foreign company must ultimately withdraw. Finally, the foreign company begins to recoup some of its outlays made before commercial discovery, although this may not occur until the production stage begins, depending on the financial terms of the agreement.

Three broad approaches to defining commercial discovery have been used in joint venture agreements.

The first leaves the question of commercial discovery to be agreed on by both parties. This was introduced in the COPE 1959 agreement and later used in the INA-NRA 1968 agreement. It is however a distinctly unsatisfactory definition since it fails to appreciate that it is possible for one party to gain from a declaration of commercial discovery while the other party loses. For example, by declaring a highly marginal discovery "commercial" the foreign company may not be forced to withdraw, while the host country may incur a financial outlay which returns fail to justify.

The second approach, common to all other agreements except the Iranian agreements establishes a criterion based on the number of barrels produced per day. In the later agreements, the technical conditions affecting production are also enumerated in some detail in terms of the number of wells, depth of strata etc.[12] The problem with this type of definition is that there are very wide divergences in the number of barrels per day specified in the different agreements.[13] Admittedly this to some extent will reflect the differences between producing conditions in the countries concerned, but one is still left with the feeling that such definitions are arbitrary and very much a matter of guesswork.[14]

The final approach to the definition comes closest to the heart of the matter, but has been used only in the Iranian agreements. It puts the definition entirely on a financial basis, and requires either that the field must produce a specific return,[15] or, as in the AGIP-NIOC agreement provide a return of 'reasonable profitability'.[16] This type of definition has become increasingly sophisticated. The 1971 vintage of Iranian agreements gives greater flexibility and specifies the discounted cash flow technique as the measuring tool. The advantage of this approach is that it does away with technical irrelevancies and asks the most pertinent question: is the field going to produce an acceptable rate of return?

To some extent, the use of a sole risk clause may make the definition of a commercial discovery redundant. The sole risk clause permits either partner to develop a field at its own risk subject to certain conditions and provisions.[17] This clause enables either side to op out of the development of any find. The definition of

commercial discovery is thus made more amendable to the first interpretation i.e. definition by negotiation. This is because the problem of either side incurring obligations which it does not want or which may be against its interests need not arise. However, the sole risk clause normally only becomes operative once the venture has been formed i.e. a "commercial discovery" has previously been declared, which still leaves open the problem of defining the first discovery as commercial or otherwise. What the sole risk clause really does is to make the precision of the definition less important since once the venture exists, neither party is obliged to commit itself to the development of the field, as the result of a declaration of commercial discovery.

Production

The Objectives of Joint Venture Agreements in Relation to Production

The purpose of the joint venture agreements with respect to oil production is to provide a framework within which two problems can be solved. These problems are how much oil will be lifted, and how the oil lifted will be disposed of? In a situation where a single company controls oil production these 'problems' are simply solved by reference to the amount of oil which can technically be lifted together with the level of demand for oil in the market. That the lifting of oil is regarded as likely to create 'problems' in a joint venture situation suggests that there may be special difficulties associated with joint ownership of a supply of crude oil. This is in fact the case.

Two conditions have to be met if joint ownership of supply is not to adversely affect offtake.(18) It is the purpose of the joint venture agreements to create these conditions.

The first condition is that both parties are willing to invest in production capacity to such an extent that all demands for crude from both parties are met. While both parties lift oil in proportion to their equity interest this is not a problem. The problem arises when there is a persistent underlifter. The obvious solution would be for the overlifter to provide the necessary additional capital, but this would create the problem of altering the equity share of the two sides. Consequently, the overlifter must be able to buy crude from the persistent underlifter at a specific price. For both parties to invest in the necessary capacity in such a way as to leave the equity interest unchanged, the underlifter must receive a price for the crude which will provide a return on capital equal to or greater than, a return from any alternative form of investment. The joint venture agreements therefore had to provide a mechanism to deal with a situation where one party is likely to persistently demand less crude in proportion to its equity than the other.(19)

Once such a mechanism had been formulated, the agreement then had to create a framework to meet the second condition. This is that the price demanded by the underlifter as compensation should not be so high as to affect the level of demand for the offtake. This condition is complicated by the fact that in a joint venture situation the foreign company and the host country require the crude for different

purposes. The foreign company has entered the venture to secure supplies of owned crude,[20] i.e. the foreign company wants the crude as a refinery input. It will therefore demand crude in relation to the sources of crude available to the company internationally to provide an acceptable crude mix to feed its own refineries.[21] The national oil companies of the host countries on the other hand will demand the crude as a revenue earner in a direct sense.[22] The basic difference is that the foreign company, as an integrated operation, is not directly interested in maximizing revenue at the production stage of the operation, especially in relation to one source of crude from possibly many available to the company. The host country however is interested in maximizing revenue at this stage as a seller of crude.

Why this difference may cause a problem tends to be obscured by the assumption used in most analytical discussions that oil is a homogenious product.[23] In fact of course there are crudes of different gravities etc. A simple example will serve to illustrate the problem. Take a venture which produces two crudes, Crude A, a light crude with a posted price of $2.26 pb and Crude B a heavy crude with a posted price of $1.92 pb.[24] Also assume that the costs of production are 20¢ pb in each case. In this situation, if the host country wishes to maximize revenue at the production stage, which is assumed to be the case, then it will push for maximum production of crude A. However, the foreign company may have owned sources of a crude similar to crude A from a cheaper source, but requires a heavier crude to provide the optimum crude input mix to its refineries. The foreign company will then push for the maximum production of crude B.

The joint venture agreement has therefore to provide a mechanism which can deal with such a potential clash of interests. Having outlined the main problems which concern offtake we can now turn to a discussion of how the agreements have tried to provide solutions.

The Partially Integrated Ventures

Theoretically, the problems discussed above do not apply to the situation of a partially integrated venture, since ownership and control of the crude is vested in only one owner, namely the venture. In this situation, the levels of offtake are determined by the Board of the venture with reference to the technical and market restraints mentioned earlier. Therefore, the venture will produce oil as long as it can profitably sell it. In the case of COPE however, although COPE can reduce offtake if market conditions are such that to sell the oil would incur a loss, to make such a reduction required Ministerial approval.(25) In the AGIP-NIOC 1957 agreement, it is simply stated that SIRIP will use all possible efforts to raise to the maximum oil output.(26)

That the theory may not work in practice is hinted at in a clause in the COPE 1959 agreement. This clause forbids the developer (COPE) from being influenced in its rate of development by 'the interests he may have in other oilfields in the United Arab Republic or abroad'.(27) Such a clause seems to anticipate the problems associated with joint ownership of supply. The explanation for this apparent contradiction lies in the two weaknesses inherent in the basic concept of a partially integrated venture. Firstly, while the

venture is envisaged as an independent company, in reality the two partners have to be brought into the decision making processes. Secondly, while the venture is envisaged as a marketer of crude in its own right, it is also anticipated that the foreign partner will act as a major buyer of the ventures' exported crude. These two weaknesses will be examined later, but their existence implies that the venture is likely to be faced with the problems associated with joint ownership of supply. Yet the agreements failed to provide any mechanisms to deal with these problems. The effects of this, as will be seen later, were to have a considerable impact, at least in the case of COPE.

The operating agencies

Since in the case of the operating agencies, joint control and ownership of the supply is explicit,(28) the agreements attempt carefully to provide the necessary mechanism.

The typical method laid out in the agreements to determine the level of offtake is as follows. For each yearly quarter the operating agency determines the optimum production which is based on technical criteria. If the equity of the agency is evenly divided, then half this potential offtake represents each partners' entitlement. Each side then informs the agency of how much of this entitlement it wishes to take up, which is termed the party's nomination., A problem then arises if one partie's nomination is less than its entitlement. The method of dealing with this varies between the agreements.

In the Egyptian agreements, the potential underlifter can allow the other party to overlift the difference between its nomination and entitlement. However, this is done on the understanding

that the initial underlifter can make up its underlift in the future, by making the original overlifter become an underlifter at some future date. The agreements are careful to ensure that recovery of an underlift is not done in such a way as to upset the market obligations of the original overlifter.[29]

This mechanism overcomes the problems of upsetting the equity, and of compensating underlifters. Although either party is entitled to leave the difference between its nomination and entitlement in the ground.[30] If there is an underlifter, there need not be an overlifter. The obvious shortcoming of this mechanism is that it cannot deal with a persistent underlifter. The agreement merely states[31] that the agency can only control offtake if, by doing so, neither parties' demand for crude is frustrated. However, there is a further clause[32] which states that the foreign company can discuss with EGPC 'means' to increase EGPC's nomination, but stresses that such discussions involve the foreign company is no definite obligation. To what extent the sole risk clause provides such a mechanism will be examined shortly.

The method of overlifting in the Iranian, Saudi, Iraqi and Jordanian agreement is quite different. In these agreements the foreign company incurs specific responsibilities towards any difference between the entitlement and nomination of the host country. In the Iranian and Kuwaiti agreements this involves the foreign company buying up the oil at a halfway price (halfway price=unit cost + $\frac{1}{2}$ unit profits). In the Saudi and Jordanian agreements the foreign company agrees to act as a marketing agent for as much of the host

country's entitlement as the host country wishes. While these clauses provide a mechanism for over and underlifting, the compensation problem is dealt with in a relatively rigid manner, particularly where the foreign company must buy at a halfway price.[33]

A potential solution in the agreements to all the problems discussed above is the sole risk clause, first introduced in the 1963 Egyptian agreements.

The sole risk clause was introduced to provide a remedy to partnership problems, where using the arbitration clauses of the agreements were regarded by both sides as 'tantamount to a divorce'.[34] The clause works as follows. If either party proposes a course of action, for example, to expand the capacity of a field, and the other party disagrees with such a course of action, then the proposing party is free to undertake the proposal at its sole risk, with the joint venture company acting as the agent of the proposer. If the sole risk operation, which has been entirely financed by the proposing party, is a failure, then the loss is borne by the proposing party only. If however the sole risk operation is a success, then after a certain time the opposing party has the right to join in the operation, but must pay a penal rate to do so.

To take a typical example, the Pan-Am-EGPC 1964 agreement[35] states that the proposing party shall receive all the petroleum from the well until the proposing party has received from each wildcat well, an amount equal to its outlay plus 300%. From each development well an amount equal to its outlay plus 100%. Finally for any project in connection with such drilling or the petroleum resulting from it, an amount equal to its outlay plus 75%. When these amounts have been

recovered, the opposing part has the right to join in on payment of 50% of the costs involved, otherwise the operation remains under the sole control of the proposer.

From the viewpoint of production, what this clause does, is to allow any potential overlifter to pay directly for that overlift without disturbing the equity of the venture. However, one point should be noted. If there is a persistent overlifter whose demand for crude greatly exceeds that of the underlifter, although the equity division of the venture remains intact, the principal of joint development is undermined. Ultimately, it is feasible to imagine a reversion to the old style concession, albeit in disguised form as the participation of the host country in operations dwindles. Nevertheless the clause does provide a valuable flexible addition to the mechanism for determining offtake as will be seen later in the case of Egypt.

Finance

The financial situation which the joint venture agreement must deal with is as follows. The foreign company is responsible for all exploration expenses prior to commercial discovery. Upon commercial discovery, both parties are responsible for the finance needed for the development and production of oil, while the foreign company must be compensated for its outlays on exploration. Once oil is being produced, the 'benefit' accruing from the oil must be divided between the parties involved. Within this broad outline, the agreement must provide the mechanism whereby the following problems or situations must be covered: the valuation of the offtake, the division of benefits and the acquisition of finance for development.

Valuation of offtake

The reason for the importance of the valuation of the offtake is that before the 'benefits' accruing from the production of oil can be divided between the parties, they must be quantified.

The problem of price

The problem of price in the valuation can be best seen by reference to the financial myth associated with the earlier joint venture agreements. The following quote provides a typical example. 'This agreement (ENI-NIOC 1957), shattered the 50-50 pattern by vesting 50% of the ownership of the operating company in the Iranian Government, thus providing 75% of profits to Iran, since it also got half of ENI's 50%.'(36) The error in this statement, apart from the neglect of any consideration of the inputs provided by the host government, lies in the implicit assumption that the profits in a 50-50 pattern agreement are based on the same price as the profits of a joint venture.

In the case of joint ventures three kinds of price must be identified. Firstly, the posted price, as used in the 'old style' concession agreements in which, by using a set of identified criteria, crudes are given a specific fixed price. Secondly, the realized price which is the price actually received for the crude on the open market. The first type of price is essentially a tax reference price on which to base royalties and income tax, while the second type is essentially a market price.(37) The third kind of price referred to in some joint venture agreements, which creates the confusion, is a 'posted price' which is set as a tax reference price, but no clue is given as to the criteria on which this 'posted price' is to be set. The implication

being that such 'posted prices' are set by negotiation rather than by any set of identified criteria as is the case with the concession posted price.

The extent of the myth which arises from these different prices can be illustrated by the following example. Assume a crude with a posted price of $2.50 p/b. Further assume the tax rate in the joint venture is 50% of the profits and there is also a 15% fully expensed royalty. The total Government take in the situation of a joint venture versus a concession is given in table 3.1 below.

HYPOTHETICAL RETURNS FOR THE HOST COUNTRY

TABLE 3.1 USING DIFFERENT KINDS OF PRICE

	(1) Cost P/b	(2) Nominal Profit (Posted Price Less Cost)	(3) Nominal Profit Less Royalty	(4) Host Country Take	(5) Tax	(6)* Total Gov't 'Revenue'
1) Concession - Posted Price ($2.50)	.20	2.30	1.96	-	.98	1.32
2) Joint Venture - Posted Price ($2.50)	.20	2.30	1.96	.98	.49	1.71
3) (PP less 25%) - Realized Price	.20	1.68	1.43	.71	.35	1.21
4) (PP less 10%) - 'Posted Price'	.20	2.05	1.74	.87	.43	1.51
1) Concession - Posted Price ($2.50)	.40	2.10	1.79	-	.89	1.20
2) Joint Venture - Posted Price ($2.50)	.40	2.10	1.79	.89	.44	1.44
3) (PP less 25%) - Realized Price	.40	1.48	1.26	.63	.31	.96
4) (PP less 10%) - 'Posted Price'	.40	1.85	1.57	.78	.39	1.25

* Column 6 = Host Country Take + Tax + Royalty − $\frac{1}{2}$ Cost.

Source: For Assumptions see page 65.

This table illustrates that which price is used in the context of a joint venture is of some importance in affecting host country revenues.

Only in the Hispanoil-KNPC agreements of 1967 are the prices to be used specified as being formulated in accordance with the procedure in the Arabian Gulf i.e. genuine posted prices. In the Iranian agreements, the price is simply to be 'posted', but with no reference to the criteria which shall be used in their formulation.

The Egyptian agreements make the question of price more explicit. For example, the COPE 1959 agreement states 'the amount of royalty... shall be reckoned on the average price in force during the period for which royalty is due, in a recognized market where it is easy to know the world prices for petroleum of a similar kind and grade'.(38) Since in 1959 there were neither recognized markets, nor world prices for petroleum, the agreement then simply goes on to formulate a procedure for the inevitable bargaining between the two parties. In the case of the operating agencies, the procedure is simpler since it is only a question of determining the profit of the foreign company, especially as the Egyptian Government has tended to take royalties in kind.(39) For example, in the Pan-Am-EGPC 1964 agreement, the price used to determine the profits of Pan-Am is the average realized price for exports to non-affiliated companies over six months, but if EGPC should be getting a higher price for its crude over the same period, then the higher price is used to determine profits.(40) Again, anticipating no sales by Pan-Am to a non affiliate, scope is given for negotiating a transfer price. In the Transworld EGPC 1972 agreement revenue is to be based on a 'posted price' less 10% or a realized price, whichever is higher. The criteria for setting this 'posted price' are not specified.

Accounting procedures and repayment of exploration expenses

While price provides the revenue side of the accounts, the deductible costs complete the balance sheet. Many of the agreements since the early sixties set out (normally in annexes) the general accounting procedures to be followed. These usually reflect 'good oil industry accounting practices' which outline the methods for dealing with what constitutes taxable profits, rates and methods of depreciation etc.(41)

One major accounting problem which the agreements had to solve was how the exploration expenses incurred by the foreign company were to be shared with the host country in the event of a commercial discovery. Four different methods can be used in the agreements.

In the partially integrated venture the exploration expenditure by the foreign company can be regarded as a loan to the company which can be repaid out of the ventures' future profits, with or without interest. Alternatively, the loan can be capitalized as part of the venture's share capital with the national oil company providing an equal amount of share capital for use in the development and production stages. In the cases of COPE and SIRIP, the former method was adapted. The difference in outcome between the method used can be seen from example 1 below.

Example 1 = Effect of different methods of repaying exploration expenses by partially integrated ventures on the distribution of benefits

Assumptions The foreign company has spent $20 million on exploration. The field which results required $40 million to develop and produce oil which is to be depreciated over five years, operating

costs are ignored. Over five years the field produces $80 million worth of oil. The tax rate is 50% with no royalty, and benefits which arise from the different timing of payments are ignored. The equity of the venture is evenly divided.

Method 1 Exploration expenses treated as an interest free loan to the venture

Both parties loan $20 million each to develop the field which is recovered after five years. Assume the share capital of the venture to be negligible. The taxable profit is thus $40 million. Of this, $20 million is repaid to the foreign company to cover exploration expenses. Taxable profit is now $20 million, after the 50% profit tax each party receives $5 million. This assumes total distribution of profits and no ploughback. The cash gains to each party are given below.

Host Country	$ Million	Foreign Company
20	- Depreciated loan -	20
Tax-10		20-Recovered exploration
5	- Profit -	5 expense
35		45

Method 2 Exploration expenses treated as part of capital

Since the exploration expenditure is capitalized the host country puts up $20 million to equalize the equity. Since $40 million are needed for development, each side lends the venture $10 million each which is recovered after five years. Taxable profits are now $60 million. After the 50% profit tax, each party receives $15 million as profit from the venture. Again no ploughback is assumed. The cash gains to each party are given below.

	Host Country	$ Million	Foreign Company
	10	Depreciated Loan	10
Tax	30		
	15	Profit	15
	55		25
Less $20 million Capital input	-20		
	35		

While the above example is simplistic in the extreme, the difference can be seen. The foreign company in Method 2 ends up with the same 'benefit' as in method 1 since as well as its $25 million cash gain, it also holds $20 million worth of shares in the company (i.e. totalling $45 million as in method 1). But, it has only been able to repatriate $25 million since the $20 million shares represents assets which remain in the country. Since the foreign company under the agreement can only dispose of these shares with the consent of the host country government, the position of the host country under method 2 is stronger, because this strengthens the host country's bargaining power.

In the case of the operating agencies, the two methods of repaying exploration expenses are as follows. Firstly the foreign company is repaid by regarding the exploration expense as a loan to be repaid out of future production. Alternatively, the foreign company can amortize the loan against the profits attributed to its own share of crude offtake. The Iranian agreements favoured the

former method, and in the 1971 vintage of agreements the foreign company could not deduct this repayment from its gross receipts for tax purposes. The Egyptian agreements on the other hand favoured the latter method.

In these two methods of repayment, the latter method, tends to favour the host country because the size of taxable profit is higher as can be seen from example 2.

Example 2 Effect on the distribution of benefits of repaying exploration expenses in different ways in an operating agency

Assumptions. The same as in example 1 except assume the value of oil produced to be $100 million.

Method 1 The Agency repays out of production

The $20 million exploration expenditure and the $40 million development costs are repaid leaving a profit of $40 million. Of this, the foreign company receives $20 million on which it pays $10 million in tax. The cash gains to each side are given below.

Host Country	$ Million	Foreign Company
20	- Depreciated Devp't -	20
20	- Profit -	10
Tax -10		20-Exploration Expense
50		50

Method 2 The Foreign company offsets exploration expenses against its own profits

On recovery of costs the profit is $60 million. Of this, $30 million accrues to the foreign company. By the deduction of exploration expenses, the foreign company has a taxable profit of $10 million of which the Government takes half. The gains are given below.

Host Country	$ Million	Foreign Company
20	Depreciated Devp't Costs	20
30	Profit	5
Tax 5		20 Exploration Expenses
55		45

If a 15% fully expensed royalty is introduced then the difference between method 1 and 2 is reduced. In method 1 the foreign companies take becomes $46.25 million while in method 2 it becomes $1.25 million. However these discrepancies are much less than in the earlier example of the partially integrated venture.

The repayment of exploration expenditure well illustrates the kinds of difficulties with which the agreements must deal. This topic will be examined in the section on financial operations since the above discussion underlies much of the financial difficulties experienced by COPE.

The division of the 'benefits' accruing from Crude Oil Production

The mechanisms set out in the agreements vary between a partially integrated venture and an operating agency.

Partially integrated ventures

In the case of the partially integrated venture, the agreements provides the host country income from three sources, the income tax and royalties which accrue to the Government, and the profits of the venture company which accrue to the host country national oil company in the form of dividends.

In Egypt the royalty was 15% which could be taken in kind from the well head, or paid in cash based on the average realized export price. In the Cope 1959 and IEOC-EGPC 1963 agreements the royalty was to be 20% on the first half of a development block and 30% on the second half. The royalty however was not expensed. In the case of Iran, no royalty was included in the partially integrated agreements. The other partially integrated venture agreements were the Hispanoil-KNPC 1967 agreement with a royalty of 12.5%, and the two Saudi Arabian 1967 agreements with a fully expensed royalty of 12.5%.

In all the partially integrated venture agreements, the income tax rate on the ventures profits were fixed at 50%. The only exception was the Saudi Arabia 1967 agreements which gave the Saudi Government the right to unilaterally alter the tax rate on the ventures. In the Egyptian agreement it was specifically stated that the Government should be entitled via royalty, rent and income tax to 50% of COPE's profits.[42]

As to the dividends accruing to the National Oil Companies, non of the agreements specified a procedure for the determination of the percentage of profits which should be distributed, as it was assumed that such a decision could be reached by the Board of the Venture. As will be seen, the relatively loose drafting of the financial clauses in the partially integrated ventures, at least in the case of COPE, was to cause considerable difficulties.

Operating Agency

The income which accrued to the host country from the operating agency came from three sources; the national oil company's share of the offtake, plus the royalty and income tax which the host government received. The royalty being levied on total offtake, the the income tax being levied on the profits attributed to the foreign companies.

The royalty arrangements were similar to the partially integrated ventures in so far as they could be taken in cash or kind. In Egypt before 1969, the royalty was 15%, and after 1969 the same figure was used in the newer agreements, but it was to be fully expensed. An interesting sub clause permitted the Government the right to reduce the royalty if by so doing a marginally commercial field could be brought into production.(43) In the case of Iran, the 1965 vintage of agreements carried a royalty of 12.5%. The 1971 vintage of agreements introduced slightly more complex royalty arrangements, expensed on the OPEC formula at 12.5% of posted prices until the foreign companies' share of cumulative production reached 5 million barrels, when the royalty increased to 14%, and later to 16% if the foreign companies share reached 75 million barrels.

The income tax which the Government received was calculated on the profits attributed to the foreign companies share of the offtake.(44) As in the partially integrated venture this rate was fixed at 50%.(45) In the case of the pre 1969 Egyptian agreements, the Government was entitled to only 50% of the accounting profit attributed to the foreign company. If the total amounts paid to the Government on behalf of the foreign company (exploitation rentals, customs duties, royalties, income tax) is less than 50% of the net profit for that year, the company must make the payments up to 50%. Similarly, if the payments exceed 50%, then the foreign company can credit the excess to future payments. In the Iranian agreements, the foreign company is also taxed on any crude it overlifts at a halfway price, the tax being based on the difference between the halfway price and the posted price.

The mechanism in the agreements whereby the national oil company secures its share of the offtake have been outlined earlier in the section on production.

Financial bye-products

Apart from the mechanisms outlined above, the agreements also provided certain financial side benefits to the host country, notably through bonuses and linkages.

Details concerning the bonuses have been outlined earlier, in relation to the two kinds of bonus. The signature bonus paid on the signing of the agreement; and the production bonus which can either be paid at the start of production, or when certain production levels are reached.(46) How far these bonuses are a net gain to the host country depends on whether they are recoverable from future production. If they are recoverable, then they merely represent an advance on revenue, except in the case of the signature bonus if no commercial discovery is made.(47)

Secondly, there are the linkages which may accrue to the non oil sector of the economy. Most agreements contain some form of economic integration clauses. For example the Egyptian agreements all specify that the venture will use local contractors or goods, providing that their price is not greater than 10% of competitor's prices from outside the country. This type of clause is unlikely to produce any impact greater than that which may occur under an old style concession, since the major operators tend to use local goods plus contractors where possible, this for political as well as economic reasons.(48) However, some local orders may be forced by the integration clauses. For example, in 1964, Egypt was to build a drilling ship for COPE at LE. 1.5 million.(49) Many of the joint venture agreements

contain clauses stating that when production reaches a certain level, then the venture will attempt to go downstream, usually into petrochemicals. For example, in the Agip-Petromin 1967 contract, when production reaches 200,000 b.d. feasibility studies will be undertaken to expand the operations into refining and marketing. However, as Saudi Arabia has already shown, such downstream ventures are possible without an oil producing joint venture.(50) One possible linkage, unique to joint ventures, is the opening of credit doors to the host country, especially if the record of the venture has been 'good.' This can come from banks, or even from the foreign company itself. For example, in 1962 ENI was reported as offering credit for industrial projects in Egypt.(51)

The financing of the operations

This is the final problem which the agreements must provide mechanisms for. In the case of both the partially integrated venture and the operating agency, the foreign company initially provides all exploration expenditure at its own risk. During this period, when the foreign company alone finances the operation, most of the agreements provide for the monitoring of these expenses by the host country. For example, the Pan-Am-EGPC 1964 agreement provides for an advisory committee of six (3 from Pan-Am and 3 from EGPC) to provide 'comment, assistance and information' on the exploration budget. At the same time exploration expenditure by Pan-Am must be 'accepted' on a quarterly basis by EGPC as being 'in line with international prices for goods and services of similar quality'.(52) Once a commercial discovery has been made, then the subsequent financial arrangements laid down in the agreements vary between the types of venture.

Partially Integrated Ventures On commercial discovery, both partners to the agreement are to provide the capital necessary to float the company. In the case of COPE the initial capital was to be LE 10 million, and in the case of SIRIP 10 million Rials. This initial capital bore no relation to the financial inputs required to develop a commercial discovery, but once the company had been formed it was allowed to secure finance like any ordinary company. The capital could be 'gradually increased as the operations of the company may require'[53], but only by maintaining the existing division of equity, which required the consent of both parties. Alternatively, the companies 'if there be needs for supplementary funds... shall borrow the required funds'.[54] In the case of SIRIP, if the conditions for borrowing on the market were 'not favourable' then the two partners were obliged to put up the necessary loans.

Operating Agency The financial arrangements in the case of the operating agencies were very different. On commercial discovery, both partners provide the capital to float the company. However, this 'capital' is intended to be the minimum required to provide the agency with an initial administration. For example, the capital for the Egyptian agencies was to be only LE 20,000. Subsequent financial requirements were to be provided in equal proportions by the two partners. This was to be the agency's only source of finance since it could neither borrow money outside of the two parties, nor could it make a profit for self finance. Over the period, various exceptions and additions were made to these basic financial terms.

IPAC, although in form an operating agency was entitled to draw its funds from outside the two partners,[55] and was also given a higher initial capital of 7.5 million rials.[56] It was also

possible for IPAC to make a profit, but only if one or both parties underlifted on its entitlement when IPAC could sell the balance.

The main development in this aspect of the agreements has been to provide for a greater role by the foreign company in the provision of development finance. In the Iranian 1965 vintage of agreements, the foreign company was obliged, if required, to provide NIOC's share of the development costs as a loan at 1.5% per annum, to be repaid in 16 semi-annual installments. A similar clause appeared in the agreements of 1971, but changed the interest rate on the loan to 7%, or a rate equal to the Federal Reserve Bank of New York + 1%, whichever was highest. The repayments period was also extended to 20 semi-annual installments. In the case of Egypt, in the Pan-Am-EGPC 1964 agreement, Pan-Am was to advance $15 million for the development of any commercial discovery while EGPC would provide any local currency required. The dollar balance owed by EGPC would be repaid to Pan-Am in crude oil carrying an interest rate of 15% for the first year, and 7% for subsequent years until the balance was repaid. In a sheet circulated by EGPC in 1972 outlining the general terms for concessions, one of the 'preference items' was 'the facilities offered for financing development costs in case of participation by EGPC'. In the Pan-Am-EGPC 1969 agreement Pan-Am agreed to put up all the funds for development, with EGPC's share to be repaid later out of future production. A similar clause was inserted in the Transworld-EGPC 1972 agreement.

Marketing

The purpose of the sections in the agreements concerned with marketing is to provide mechanisms whereby the production can be disposed of in a way that is satisfactory to all parties. In this

situation, the interests of the host government, as distinct from the national oil companies, must be considered as well as the interests of the direct parties to the agreement.(57)

Rights of the Host Government

These rights are normally covered by two aspects. The purchase of part of the offtake by the governments at favourable terms, and the requirement that domestic demand is satisfied before crude oil can be exported.

In the Egyptian agreements which regulate COPE, it is stated that the Government is entitled to purchase up to 20% of COPE's offtake at a price 10% below the realized price for exports.(58) However, this crude can only be used domestically, which does not allow the Egyptian Government to 'test the international market' to ensure that COPE's realized export price is 'realistic'.(59) In addition, COPE cannot export crude until domestic refinery demand has been met. The other Egyptian operating agency agreements also contain identical clauses.(60)

Similarly, in the case of Iran, the Government, through NIOC, is entitled to purchase part of the offtake. Up to 1958 this represented an option on 5% of the offtake at a price equal to cost plus 14¢ p.b.. After 1958 the option rose to 10% of the offtake at the same price. As with Egypt this was for internal use only, although the Iranian agreements made no stipulation that domestic refinery demand should be met before export took place.

The other agreements where such Government rights are important are in the Hispanoil-KNPC 1967 agreement and the Saudi Arabia agreements. In the former case, the Government can buy at cost price 'a proportion of crude petroleum required to produce in

Kuwait products for local consumption'. In addition, the Government can buy up to 10% of net production at the posted price less 10%, but only for export to other Arab countries. In the case of Saudi Arabia, the Government can purchase 10% of the offtake at the posted price less 10% with no restrictions on use. The Saudi Governments options on purchase also became more favourable over time,[61] and the Government has further options on 10% of the offtake at normal market terms for its own use or for export to other Arab or Muslim countries.[62]

Marketing in a partially integrated venture

The method of marketing is left to the Board of the venture and the agreements concern themselves almost entirely with questions of flexibility of price, which have been outlined earlier.[63] What some agreements do add is the marketing allowances permitted off the posted price.[64] For example the Agip-NIOC 1957 agreement allows the managing director of SIRIP to offer up to 5% off the posted price at his own discretion, while reductions of greater than 5% must be approved by a body described as 'a commission of directors'. In the case of the Hispanoil KNPC 1957 agreement discounts were allowed 'in the light of the competitive, economic and marketing situation', but this allowance was to be under the control of 'the appropriate authorities'.

Marketing in an operating agency

In the case of an operating agency the question of marketing the offtake is not the concern of the agreement. This is because once the oil reaches the wellhead, each party can then dispose of it as desired with no restrictions. The only exception to this is where the foreign company has incurred an obligation to market some of all of the host countries entitlement. The details concerning this have been outlined earlier in relation to production.

Management

The management or control of the operations is the last aspect covered by the agreements to be discussed. If one starts from the premise[65] that 'the basic problems of joint ventures arise from a mixture of harmonies and conflicts of interest',[66] then it can be assumed that an important function of the management is to reconcile the conflicts. The agreements must therefore create the framework for management to achieve this aim. The agreements usually only cover three aspects which could be said to come under the broad heading of management.

The equity and constitution of the Board

The normal equity distribution is on a 50-50 basis.[67] Two exceptions can be mentioned. The two main Saudi Arabian agreements both endow the national oil company, Petromin, with less than 50% of the equity. In the Auxerap-Petromin 1965 agreement, Petromin only has options on 40% of the equity, while in the Agip-Petromin 1967 agreement Petromin has options on 30% of the equity until production reaches 300,000 b.d., when Petromin can take options on a further 10%. In both cases Petromin has equal representation on the boards. In these Saudi agreements Petromin's equity share is only an option. There is no automatic acquisition of equity as is the case in all other venture agreements. The only venture where the national oil company has an equity majority is the Hispanoil-KNPC 1967 agreement which gives KNPC 51% of the equity. This does not give KNPC control of the Board of Directors, since each side provides an equal number of directors.[68]

The constitution of the Board has the same broad outline in all the agreements. The host country provides the Chairman of the Board, while the foreign company provides the general manager.(69) The actual size of theboard can vary. For example, SIRIP and WEPCO have a Board of six, while GUPCO has a Board of eight. In the case of the Egyptian operating agencies, the companies are specifically excluded from being subject to the law granting representation to the workers on the Board of Directors.(70) The Egyptian agency agreements also carry what could be termed a 'good parthership clause', which emphasises that decisions of the Boards of the agencies shall be the result of mutual agreement between the two parties.(71)

Personnel Policies

These relate to the staffing policies to be used by the venture. In the case of Iran, the first agreement (Agip-NIOC 1957) stated that technical management will be provided by Agip, while it was agreed(72) to employ Iranian nationals where possible. The next Iranian agreement, which created IPAC was slightly more specific, and stated that after ten years, more than 51% of the executive work-force shall be Iranian nationals.(73) By the 1971 vintage of agreements, terms were 'more favourable' to Iranian 'participation' with greater than 70% of the executives being Iranian nationals.(74) In addition, there is to be a five yearly switch round in who appoints the Chairman and General Manager. The Saudi Arabian agreements provide a splendid example of the pointlessness of the specific employment clauses as outlined above. A minimum of 75% of the labour force must be Saudi nationals, but only if they are available to be employed (sic.). The Egyptian agency agreements provide by far the most sensible approach to this problem. The agreements are excluded from coming under the

various laws governing employment regulations. For example, they are excluded from Law 26 of 1954 on Companies, one of whose clauses states that a minimum of 75% of the work force of a company shall be Egyptian. All that is stated on the subject of employment is that the ventures will 'replace expatriate staff by qualified nationals as they are available.'[75] This formula provides the maximum flexibility.

Procedures for dispute settlement

The final aspect covered by the agreements relates to the procedure for the solving of disputes.[76] These procedures relate to the setting up of conciliation and arbitration procedures in the event of a dispute either between the parties directly concerned, or the government and one of the parties. The arbitration procedures are normally international. An exception to this is Saudi Arabia which under its Mining Code set up a Board of Concessionary Appeals to operate within the borders of Saudi Arabia. In the case of Iran, in its agreements[77], a distinction is made in the handling of dispute arising from different sources. Accounting and technical differences are referred to a single expert, or a body of three, if the parties cannot agree on the single expert. Legal differences are put firstly through a conciliation procedure consisting of four members, two from each side. If this fails then the dispute goes to arbitration of three people, two chosen by the partners and one chosen by one of the Swiss Business Chambers. Because of the time limits imposed at the various stages relevant to solving a legal dispute, the machinery to reach a decision could in theory take up to seven months to set up.

In the case of Egypt, the procedures vary between the different agreements, but distinguish between a partner-government dispute and an inter-party dispute. The difference is that disagreement

with the government is more likely to reflect disagreement over the interpretation and enactment of the contract than an inter-party dispute which is more likely to be outside the scope of the agreement.

In the case of COPE, a dispute between the government and IEOC is dealt with by the Mining Law of 1953.(78) This sets up a board of three, two of which are appointed by the Egyptian side. But if the dispute is one which involves a threat of the cancellation of the agreement, the matter is referred to the Administrative Court of the Council of State.(79) There is no official procedure laid down in the event of the two parties to the agreement failing to agree. In the case of the operating agencies, if there is a dispute between the Government and Pan-Am, it would be referred to arbitration under the laws of civil procedure effective in the UAR. If the dispute was between the two partners, then the dispute would go to international arbitration. But, it was not made clear under which law the case would be heard. For example, 'the agreement.. shall .. be interpreted.. (by) the principles of law common to the UAR and the United States of America and, in the absence of such common principles, then in conformity with the principles of law normally recognized by civilized nations'.(80) This vagueness was deliberately included in the agreement to give maximum flexibility, since it was anticipated that 'the need is for commonsense to prevail rather than strictly legalistic requirements'.(81) The maximum time allowed to set up the arbitration machinery was 45 days compared with seven months in the case of Iran.

Apart from these three aspects of the agreements which could be regarded as coming under the umbrella title of 'management', another feature can be mentioned. Most of the agreements specified

the use of certain practices relating to such items as well spacing, plugging and abandoning wells etc. These clauses usually reflecting 'good oil industry practice' can be regarded as providing some technical framework within which management could operate, although on a limited basis.

Conclusion

It becomes quite clear from the above outline, that the management clauses in the agreements were intended to provide only the barest framework within which management was to operate. The other sections of the agreements concerned with production finance etc. provided additions to the framework, but the overall impression is an attempt by the drafters of the agreements to leave question of management as open as possible to provide the maximum flexibility.

CHAPTER IV

Bargaining and Conflict in Relation to Joint Ventures

The purpose of this section is to examine briefly (1) the reasons why, in the past, oil agreements have tended to be unstable and to be a potential source of conflict. Then, in the light of these reasons to examine how a joint venture may provide a partial solution to this instability and conflict, at the same time possibly creating new forms of conflict.

Oil agreements and stability

There can be little doubt that oil agreements have been both unstable and controversial,[2] and one is forced to the conclusion that such characteristics are inherent in the nature of the agreements. This section will argue that such characteristics are the result of an attempt to cover a dynamic situation with a static instrument (i.e. a concession agreement).

Relative Bargaining Power and Dynamism

The Nature of Bargaining

Bargaining is concerned with relationships of power.[3] Power itself can come from different sources, from the State, from within a social structure, from an organization, economic power etc. The exercise of power can be complicated by the fact that more than one type of power may be brought to bear at the same time. For example, a company may exert economic, political and organizational power on a country at the same time. This factor can make it difficult to isolate economic power for analysis.

However, economic power operates in the context of economic relations, and from this proposition two bases of economic power can be identified. The first is the economic dependence of one party upon another. An oil company depends upon oil. If it draws its oil from one source, its dependence on that source in the short run is total.[4] As its sources of oil diversify, so its dependence on each individual source lessens. The second element is the ability of one party to deny its goods or services to the other party. The significance of these two elements is that they are both measurable in monetary terms. The cost of dependence can obviously be seen, while the cost of denying the goods or services can be measured by the net benefits foregone. The link between the two hinges on the following - 'the sacrifice which B makes by retaining the good is obviously nothing more than the dependence of B on A. Therefore, economic power is based on the extent to which the subject to be overcome is dependent on the powerful subject, and on the extent to which the powerful subject is independent of the subject to be overcome'.[5]

While these elements are measurable, the question as to who wields the strongest economic power cannot be answered until certain qualifications are considered. Firstly, the power to retain depends upon how far the party who is threatened with the denial of the good believes in the ability of the holder of the good to retain it. The question of retention is very much a matter of credibility. Secondly, the impression made by the threat of retention depends partly on dependence, but also on the degree of 'faint heartedness' of the subject threatened. One would expect however, a high correlation between dependence and the level of 'faint heartedness'.

In terms of the first oil agreement in a country, one might expect that the economic power of the foreign company[6] would be much greater in relation to the host country. The foreign company will have the technology, the skilled manpower, the risk capital and market outlets. However, over time, these attributes will increasingly be acquired by the host country. Consequently, in the initial period the dependence of the host country on the foreign company is high; over time, as the host country is more able to run aspects of the industry itself, this dependence is reduced. This change in relative economic power between the two parties is likely to reflect itself in a change in the relative bargaining power of the two parties.[7] As can be seen, the prime characteristic of this relative bargaining power is that it is a dynamic process.

The 'Law' of Increasing Terms

The relationship between the foreign company and the host country with respect to an oil agreement is one of many such relationships between different countries and companies. As a result the relationship which exists in one country is likely to be affected by circumstances external to the country.

Part of the mechanism whereby external factors influence the relative bargaining power can be explained by what might be called a 'Law' of increasing terms.[8] This states that the main terms of any agreement signed represent the minimum acceptable terms ~~of any agreement~~ on which the next agreement can be negotiated. While 'the Law' applies to all the terms, it applies more strongly to some categories of terms than others. Two categories stand out. The financial terms are very strongly affected by this principle, also the terms which could be

described as 'public relations' terms. These included the employment clauses and other clauses which concern, aspects of national sovereignty, The reason the tendency operates is due to political competition. In this way, it applies not only to the agreements of one country[9], but it will also apply to the agreements of different countries, particularly where these countries are in a politically competitive area.[10]

An excellent example of the working of 'the Law' is provided by the speed with which agreement innovations in one Arab country such as the 50-50 profit division have spread to other Arab countries, although certain time lags are involved.

In the light of this principle, it can be seen how the relative bargaining power of the two parties can be altered even if there is no alteration in the actual balance of economic power between the parties. No Government in a politically competitive area (internally or externally) can afford to appear to be lagging behind its competitors in securing 'improved' terms[11], even if there are no alterations in the actual situation. The foreign companies are well aware of this, and must try to accomodate the host country if they are to survive.

Thus, the relationship of relative bargaining power between country and company is dynamic in the sense that is likely to change. However, the way it will change lies in the future and is therefore uncertain. This dynamic and uncertain relationship is governed by an agreement which is static.

The Static Agreement

The distribution between the parties of the profit which accrues from the production of crude oil is a zero sum problem. i.e. one side can only improve its position at the expense of the other side, assuming the size of the profit is a constant. Yet both sides feel entitled to benefit from the profit. The host government as the owner of the oil,[12] the company as a reward for involving itself in a high risk operation. In order to solve this problem of distribution an agreement is signed before the operations begin, to outline the mechanisms of the sharing process.[13]

Two points should be made about this initial agreement which affect its impact on the dynamic processes outlined earlier.

Firstly, it is set at the start of the operations, secondly it is set in ignorance of the eventual size of the profit.

The fact that the agreement is signed at the start of the operation means that its provisions reflect the relative bargaining power of the two parties at that point in time.[14] To take an extreme example, assume the foreign company has all the economic power, and no other company is bidding for acreage. If it is assumed that the initial agreements reflects the relative bargaining power of the two sides, then the foreign company should secure for itself the majority of the profit. However, over time as the economic power of the host country increases the relative bargaining power will alter. But, and this is the problem, the agreement which governs the relationship still reflects the bargaining power at the start of operations. Consequently, the host country will begin to 'pressure' the foreign company to bring the initial agreement into line with the new situation. The greater

the difference in relative bargaining positions at the start of the process, the greater the scope for the initial agreement to become outdated, and the greater the pressure which will be exerted.

The second feature, uncertainty as to the size of profit, feeds this inherent instability as follows. The agreement which determines the 'distribution' of profit between the parties is set in ignorance of the final size of profits. Consequently, an agreement which at the start of the operation gives the foreign company a 'reasonable' rate of return on its capital outlay, may in the light of events prove to have been 'over generous' to the company. A crude illustration will clarify this. Assume the agreement gives the foreign company 50% of profits, and the foreign company invests $50 million to produce oil. If the field found is say of medium size, and the profit is $25 million per annum, this represents a rate of return to the company of 25% per annum. If however the field is large, and profits are $100 million, then the company secures a rate of return of 100% per annum. Assuming there is some concept of normal profit, then if the Company's rate of return greatly exceeds this, because the initial agreement could not forsee the eventual size of the profit, then charges of exploitation are likely to be made against the company.(15)

Conclusion

Bringing the strands together, it can be seen that the conflict between the host country and the company arises because the terms of the relationship between the two are set by an agreement. This agreement, made in ignorance of an uncertain future, becomes outdated as circumstances i.e. relative bargaining power, changes.

Consequently, there is constant pressure to update the agreement. However, this analysis creates a conceptual problem since its conclusion suggests that a 'dynamic agreement' would solve the problem. Conceptually, a 'dynamic agreement' would be an agreement which would provide a mechanism whereby any change in relative bargaining power would be instantly reflected by a change in the terms of the agreement. But, the idea of relative bargaining power is subjective to the two parties, and therefore could not be dealt with by an objective agreement.

In reality it is not the agreement which is static or dynamic. An agreement is a piece of paper with words on, and the words cannot rearrange themselves as if by magic. What is static or dynamic is the attitudes of the parties to the agreement. A party with the best of the agreement is likely to have a 'static' attitude to it, i.e. not wish it altered. The party with the worst of the agreement will have a dynamic attitude to the agreement, i.e. want it changed. In the light of this realization the problem can be restated.

The future is uncertain and change is likely to occur. If conflict is to be avoided, then the rules which govern the relationship between the parties must be altered. If both sides are amenable to allow alterations i.e. have a 'dynamic attitude' to the agreement then conflict through bargaining will occur, but need not lead to conflict through action. Conflict through bargaining is the haggling of the negotiating table, while conflict through action is represented in the extreme by nationalization or company withdrawal.

However, if one side has a 'static attitude' as is more likely to be the case, then the conflict through bargaining is likely to be translated into conflict through action.

It is for these reasons that oil agreements have tended to generate conflict through action.

The Contribution of Joint Venture Agreements

The contribution of joint ventures can best be summarized by reference to an earlier quote which described joint ventures as a mixture of 'harmonies and conflicts'.[16] In some ways joint ventures provides solutions to some of the problems discussed above, at the same time they also create new problems.

Joint Ventures as Solutions to Conflict

When conflict arises in the context of an oil agreement, it generally manifests its self in two categories. Firstly, there are demands for changes or renegotiations in the details of the existing agreements. These details usually relate to the financial aspect of improving the financial benefit which accrues to the host country. Secondly,[17] there are the demands to alter the whole nature of the agreement, and to change it from a rentier type of agreement to one which involves, to one extent or another, participation and control by the host country.[18] It is to these two aspects which joint ventures can contribute.

Financial Benefit. The joint venture agreement differs in several important respects from the rentier arrangements. Firstly, the host country acquires a direct share in the real profit of the operation as opposed to a purely fiscal benefit. While in the old style

concession the host country received 50% of the 'profit' in tax,[19] the 'profit' was a national accounting profit and since the sixties. 'The income tax has been transformed into an almost pure per-barrel tax',[20] and as such can be regarded as a cost of production. In the joint venture situation, the host country through its national oil company earns a proportion of the real profits of the operation, where this profit is represented by the national oil company lifting its share of the crude, then the sharing of the profit is even more real, since no accounting procedures are required. Of course the fiscal problems of taxing the profits of the foreign company still remain, but on a reduced scale.

In addition, the clause which has appeared in some joint venture agreements which allows the host government to unilaterally alter the tax rate on the foreign company achieves two ends. Firstly, it gives greater flexibility to the initial agreement by accepting the principle that the financial terms can be altered. Secondly, a considerable amount of sovereignty is restored to the Governments' fiscal powers. The significance of such an extension of sovereignty is that, once accepted by the company, it further reduces the area where conflict can be expected.[21]

However, these features are more a question of psychology rather than economics. Even though the area of potential conflict may have been reduced, the fact remains that the per barrel income which accrues to the host country under a joint venture may well be less than under an old style concession.[22]

Benefit of Participation Theoretically, the joint venture arrangement changes the whole basis of oil extraction agreements by converting it from a rentier arrangement to one of potential participation.[23] If a host country has opted for a joint venture agreement, there are certain implicit assumptions which can be identified. The first is that the host country is to some extent dependent upon the foreign company. If the host country were entirely self sufficient in all the aspects required to find, produce and market oil, there would seem to be little point in not pursuing sole development, subject of course to the constraint of comparative costs. The creation of a joint venture therefore suggests complementarities between what each party has to offer.[24] It further suggests that both parties realize their interdependence and would be more likely to possess 'dynamic attitudes' with respect to changes in circumstances. This in turn means that conflict through action is less likely.

The other major contribution of joint ventures to harmony lies in the political psychology of participation. This works in two ways. Firstly, the host country can feel it is playing a significant role in the development of its own country's resources. This was a major source of earlier conflict.[25] Secondly, in the past, relations between governments and companys have sometimes been strained because the government exerted pressure on the companies, not because the government felt it had a genuine greivance, but simply for internal or external political reasons. If a joint venture exists, then the industry can be projected as a national industry and the pressure which may arise from political factors is eased. A good example of this latter point is provided by Egypt where the industry is projected as a 'national industry' and the Government felt quite safe to call upon other Arab countries to use oil as a weapon against America over the Israeli question despite American involvement in the Egyptian industry.

It would seem that the benefits to stability, which comes from the host country directly participating in the operations, are greater than the contribution to stability from the financial aspect.

Joint Ventures as Generators of Conflict

The reason that joint ventures may generate conflict comes from two characteristics, joint ownership, and joint control of the venture. The distinction between the two is that joint ownership concerns the joint provision of the inputs, while joint control concerns the disposition of the inputs. It is possible to have the former without the latter.

Effects of Joint Ownership The problems which may arise from joint ownership derive from the multinational interests of the company and the multisectoral interest of the Government. This means that both parties have responsibilities for providing inputs for interests other than the joint ventures. Consequently, there is no automatic reason why both parties should wish to put the same quantity of inputs into the venture. Two specific problems will serve to clarify this question.

Both company and government will wish to distribute their available resources between their different interests on the basis of 'profitability'. However, the criteria on which this 'profitability' is based may well differ. On the one hand the company will tend towards a calculation based on the rate of return on capital. The Government, while also using this criteria will also be obliged to think in terms of social profitability, and of profitability which may arise from other sectors due to linkages. To take a simple example, if a country has a balance of payments problem, and fuel imports, aggravate the problem, the country may be willing to put more resources into developing oil than would be justified by a straight accounting calculation at existing exchange rates.

Consequently, conflict may arise between the parties if one side wishes to expand the operation at a different rate from the partner.(26)

A similar potential problem which concerns the partially integrated venture is the partners' policies over the question of dividends or ploughback, with respect to the profits. The foreign company because of committments outside the company or because of a desire to rapidly recoup the original investment, for example, for political reasons, may wish to distribute a far higher proportion of the profits than the host country. As a result, the venture may be denied an important source of funds for expansion.

The Effects of Joint Control The problems which may arise from joint control come from a similar source to the joint ownership problems, namely that different motivations may conflict in the day to day operations.

Some of these problems have already been discussed in the context of specific fields of interest such as exploration and production. In these cases, the agreements have attempted to provide solutions where different motives may cause disagreement. Two other sources of difficulty which may cause conflict in a general sense, should also be mentioned.

Firstly, while one of the supposed benefits of a joint venture is that political interference is reduced by virtue of a share in control, if politics should be allowed to impinge on operations, such political interference could be far more harmful to efficient operations.

Secondly, from the viewpoint of the multinational foreign company, sharing control could create difficulties with the logistics of the foreign company on an international scale. The oil operations

of the foreign company in any one country are only part of its international operations. The decisions which are made for operations in one country must be linked to similar decisions in other countries. However, the host country can take decisions in relative isolation. As a result the host country can take any decision on the basis purely of the interests of the venture,[27] while the foreign company taking the same decision must consider wider interests. A good example of this problem which also ties in with different profit motivation is the problem of demands for different crudes mentioned earlier.[28]

In the late sixties the problem of logistics was thought to be particularly relevant to a situation of a world surplus of oil where a foreign company might wish to cut back production from country A because it could get the same crude more cheaply from country B. While the surplus situation no longer holds, the problem remains but in reverse. In other words the possible desire by the host country to conserve the oil may equally interfere with the logistics of the international company.

Conclusion

To a large extent, the success or failure of the venture depends on how these conflicts are resolved. This in turn depends upon how the characteristics of the agreements have operated in practice. It is this question which can now be examined.

CHAPTER V

The Operations Of Joint Ventures

The purpose of this section is to examine, in the light of earlier sections, how joint ventures have operated in practice, in relation to various aspects of oil operations. Since only Egypt and Iran have actually formed joint venture companies, it is from these countries that the information is drawn.[1] The aspects to be covered are exploration, Production, finance and management.

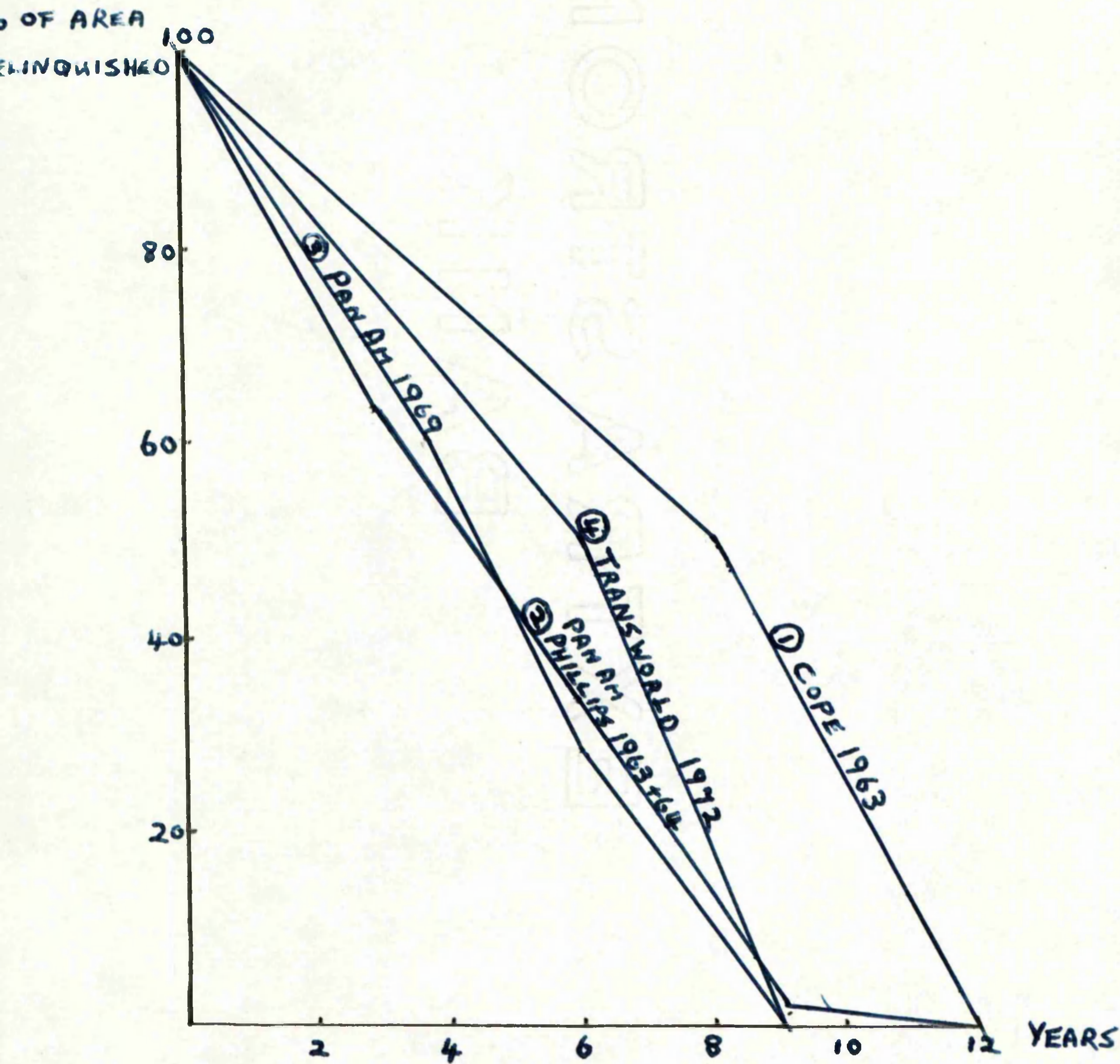
Exploration

As has been outlined earlier, the exploration terms in Egypt became more favourable to Egypt over the period in the sense that the foreign companies provided for a greater exploration effort in a shorter period. These improvements reflected the better bargaining position of Egypt as the industry gained momentum, and also appeared to work successfully despite the little oil found. Three specific aspects of the agreements affected the exploration operations.

Relinquishment

As can be seen from Figure V.1. page 100 the rate of relinquishment provided for became faster up to 1969. However, as success in finding oil became increasingly elusive, the trend was halted in the Pan-Am-EGPC agreement of 1969, and reversed in the Transworld agreement of 1972. This provides a good example of the fear that a too rapid rate of relinquishment would impair results. The suspicion that relinquishment may have been too fast to allow thorough investigation is confirmed by the fact that in the Pan-Am-EGPC 1969 agreement 25% of the area granted to Pan-Am had earlier been relinquished by the same company.[2]

Figure V.I **The Rate of Relinquishment of Egyptian Joint Ventures**



SOURCE - RELEVANT AGREEMENTS.

One benefit of the earlier relinquishment was that EGPC had at its disposal a considerable amount of acreage to relet on which there was geological information. This meant new agreements could grant smaller areas. For example, in the NOSO-EGPC agreement of 1970,[3] NOSO received only 100 sq.km. for three years on which was to be spent on exploration the highest amount per sq.km. yet. In the summer of 1972 negotiations were in progress with a large number of foreign companies to relet relinquished acreage.[4]

Some countries have been criticised over their policy of letting acreage for exploration to too many companies, on too small a scale, for too short a time.[5] The specific criticism is that by splitting areas into small blocks, the total geological picture may be lost, thereby leaving the companies with inadequate data to site wells. But since the national oil company is a common partner in all countries, this danger can be eliminated. The EGPC has in fact instituted regular meetings of the exploration departments of all operating companies with the specific object of pooling information. In addition, by pursuing such a policy, a considerable amount of exploration information has been gathered in a relatively short period.

Exploration Obligations

As can be seen from table 5.1 the minimum exploration effort in financial terms shows no clear trend, except the obligations for offshore areas are higher.[6] This is simply because of the higher cost of offshore drilling. The actual amounts arrived at in the agreements are the result of bargaining, the host country attempting

Table 5.1 Exploration inputs into Egyptian Ventures

Company and agreement	Minimum exploration obligation $ per sq.km.	% of the Acreage Granted which is offshore
Cope 1963	770	8
Pan-Am 1963	232	0
Phillips 1963	104	0
Pan-Am 1964	4,230	100
Pan-Am 1970	625	0
Transworld 1972	1,045	a part.

Source: Relevant agreements.

to get the maximum obligations from the foreign company, the company trying to incur the minimum obligation. This is not to imply that the foreign companies in Egypt do not want to put in the financial effort, but they wish to keep the legal obligation to the minimum. In the Phillips and Pan-Am agreements of 1963-64, the minimum outlay incurred by both over a nine year period was $54.5 million. By 1970 both had overspent this by $13.5 million.(7)

A point to note here is that since the ventures had both been formed, and the minimum obligation met, EGPC had to also invest $13.5 million in exploration. Although part of this would be in Egyptian currency, it clearly indicates that the host country is not entirely free from the provision of risk capital for exploration.

Commercial discovery

Table 5.2 Exploration Time Lag In Egypt

Field	Operator	Number of weeks between oil shows and date of commercial discovery
Morgan	GUPCO	68
Alamein	WEPCO	11
Imbarka	WEPCO	5
Abu Qir Offshore	WEPCO	70
Abu Al Ghanadiq	GUPCO	91

Source: The number of weeks shown is liable to some error since the information was obtained by taking the time between the report by MEES of an oil show and the report of a declaration of commercial discovery. Thus there is the reporting lag to be considered. But this can be assumed to be similar in all cases and so the figures can be looked at as reasonable approximations.

As can be seen from table 5.2, the gap between oil shows and the declaration of commercial discovery was reduced sharply until Imbarka, after which it increased again.

The reason for the initial decline was that both sides were keen to declare commercial discovery as rapidly as possible. The problem came with the Imbarka discovery by Phillips. It fulfilled the requirement of commercial discovery (500 b.d. over a thirty day test period), and was immediately declared commercial. However, subsequent development drilling failed to find another producing well, and it became apparent that the discovery was merely a freak pocket, As a result of this, EGPC had incurred heavy financial obli-

gations, and on subsequent discoveries requested more time for evaluation before declaring a commercial discovery. The commercial discovery definition was also extended in later agreements to require at least two producing wells on a structure.(8)

Despite Egypts unfortunate experience over Imbarka, the technical definition of commercial discovery was still used in the agreements. While this was improved and made more complex, it still misses the point that the well or field, rather than produce a quantity of oil, should produce an acceptable financial return.

Production and Disposition of Crude Oil

The development of the offtake

In Egypt, the first venture to lift oil was COPE in 1957 from Belayim.(9) The offtake plans were based on a five year rolling plan, with adjustments being made annually.

Since COPE was the marketer of crude oil, partnership problems over offtake did not arise since the crude was lifted with the object of maximizing the profits of the company. Who bought the crude is uncertain in exact quantitive terms, certainly ENI must have bought some, but at what terms is unclear, although it is claimed that ENI paid the same price as anyone else.(10) Expansion in output came from expanding the Belayim field, thus when the Israeli's took over Belayim in 1967, COPE's production ceased. Despite the 1959 and 1963 agreements, further finds of crude were not made.

GUPCO started production from the El Morgan field (32° API low sulphur content) in April 1967. Almost immediately there was an offtake problem. The Israeli attack of June 1967 by taking Belayim, reduced the amount of crude available for domestic requirements.

Under the terms of the agreement Egypt was entitled to requisition the entire production of El Morgan, but refrained from doing so in order to keep good relations with Pan-Am.(11) In November 1967 and again in March 1969, as a result of further Israeli attacks, the refinery capacity at Suez was damaged. This meant the planned expansion in offtake from El Morgan was threatened since Egypt lacked the refinery capacity to use the crude oil. In these situations both sides accommodated each other by an agreement to underlift or overlift as the situation required. This period presents a good example whereby problems over offtake can only be overcome if both sides are prepared to be flexible and accommodating. Clearly, the solution lies with management rather than with creating legalistic mechanisms. Not until the beginning of 1972 was the situation normalized with both sides taking their equity entitlement. Apart from one year (1969/70) the Government elected to take the royalty in crude oil rather than cash.

The last venture to be formed, WEPCO, began with production from the Alamain field (34.5^{o} API low sulphur content). From the start both sides took their equity entitlement. The level of offtake for the venture is given in Table 5.3 page 107.

The development of venture offtake in Iran follows a similar pattern of gradual expansion as indicated by Table 2.2. page

These developments in Egypt and Iran appear to have occurred with none of the production problems anticipated in the earlier section on the characteristics of the agreements. While this may be due in part to the mechanisms provided by the agreements, there is a more realistic explanation. As can be seen from the

production tables, in neither case has the level of venture production been high. For example in Iran in 1970, total venture production accounted for less than 8% of total Iranian output. Consequently fears that the national oil companies could not dispose of their share of the offtake, or that conflict would arise between the production of different crudes, have been unjustified to date simply because production has been too low to be significant.

The operation of the sole risk clause

In the case of Egypt, the clause had only been invoked once, although on other occasions it has been 'threatened'.(12) The case were it was invoked concerned the Abu Qirgas discovery by Phillips in 1969. Phillips felt that given the nature of the find, plus the international marketing situation, exploitation of the discovery would not be a commercial proposition. On the other hand, EGPC felt that if the gas field was developed, the gas could be used on the domestic market thus freeing fuel oil for export, at a time when fuel oil was gaining improved terms in the international market. This situation provides a good example of a situation where the two parties, acting on good economic criteria, reach different conclusions, both equally valid. By invoking the sole risk clause, a solution satisfactory to both parties was reached without any problems over the equity balance or paying a compensation price to Phillips as an underlifter. Nor is the decision final since Phillips can buy in at a future date, albeit at a penal rate of entry.

The benefit of the sole risk clause as a solution to partnership problems can be seen by reference to a recent dispute in Iran. The dispute concerns IPAC's Fereidun field were the cost

Table 5.3 Egyptian Oil Production 1957-1970 (Million Barrels)

	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Total	16.3	21.8	21.3	22.8	26.1	32.3	38.8	43.9	45.6	44.1	39.5	62.2	89.6	119.2
COPE	4.7	9.4	9.4	10.6	14.1	20.9	27.4	32.4	33.1	34.0	13.8	-	-	-
GUPCO	-	-	-	-	-	-	-	-	-	-	3.6	35.8	62.5	82.6
WEPCO	-	-	-	-	-	-	-	-	-	-	-	-	8.7	14.0
Venture production as a % of total production	29	43	44	46	54	65	71	74	73	77	45	58	79	81

Source: Pre 1960. Petroleum op.cit.

Post 1960. 20th Century Petroleum Statistics.

of lifting the oil was likely to be well above average. Before proceeding, Pan-Am tried to secure tax relief to compensate for the higher lifting cost. In such a situation a sole risk clause would enable NIOC to carry on with the development of Fereidaan with or without Pan-Am.

<u>The Disposition of the Crude</u>

A major difficulty in describing the disposition of the crude produced is the lack of information on the quantity and price of the crude. This comes about partly for reasons of commercial confidentiality, but more important until recently, it is also due to a question of political prestige over what appears to be the poor price received by the national oil companies until 1972.

In many ways Egypt's experience with respect to the disposition of the crude has been unusual since its prime objective, at least initially, was to provide domestic crude for the large and growing domestic market. This demand represented a growing drain on the Egyptian balance of payments. In 1955 crude oil and oil product imports cost Egypt LE 16 million, by 1965 this was LE 27.1 million representing 7% of total imports and 19% of the visible trade deficit. Between 1965-70 the average cost of one imported ton of crude oil cif was LE 6.56, the average revenue for a ton of crude oil exported fob was LE 4.20, a difference of LE 2.36. The average cost in the same period of one ton of imported oil products cif was LE 8.07, of one ton of exported products fob LE 5.46, a difference of LE 2.61.[13] As can be seen from column 5 in table 5.4 page 109, the domestic demand for crude oil reached a peak in 1966. After 1966, demand declined due to increasing substitution by cheap electricity from Aswan, and the development of natural gas. This decline in demand meant that an

increasing amount of crude oil became available for export. This trend to export crude was supported by the destruction of much of Egypt's refining capacity after 1967.(14)

Table 5.4 Egyptian consumption of crude oil and products 1960-1970

Million Barrels	1960	1965	1966	1967	1968	1969	1970
1) Domestic production of crude	22.8	45.6	44.1	39.5	62.2	89.6	119.2
2) Foreign company offtake	-	-	-	1.76	17.74	35.33	47.96
3) Exports of crude**	6.4	11.68	10.09	3.65	5.47	11.46	26.13
4) Imports of crude	15.33	29.2	28.47	18.25	9.12	7.33	7.66
5) Crude domestically used (1-2)+(4-3)	31.73	63.12	62.48	52.34	58.11	50.14	52.71
6) Products trade balance*	+4.4	-15.7	-11.7	-8.0	+1.7	+8.0	+15.3
7) Petroleum based fuel used domestically	36.13	46.42	50.78	46.34	59.81	58.14	68.01

** Excludes oil exported by the foreign companies.

* Given in simple weight terms, calorific equivalents ignored.

Sources: Table 5.3 page 107 Rows 1
GUPCO + WEPCO Annual Reports: Row 2
Economic Review, Central Bank of Egypt: - Rows 3,4,6

Before production began from El Morgan, the bulk of domestically produced crude had been refined locally. For example, much of COPE's Belayim production had been sent to the refinery at Suez, and when production was started from Alamein, EGPC's share was also refined locally. What crude oil had been exported had tended to be the heavier crudes which were frequently sold on a barter basis.

With the development of El Morgan, for the first time Egypt had a light crude of fairly low sulphur content in sufficient quantities to be exported for cash. Egypt appears to have had little difficulty in selling her share, and in mid 1971 it was announced(15) that after the Tripoli agreement, contracts had been signed to export El Morgan crude over the following eighteen months at a price 50¢ pb above the earlier prices.

In the case of Iran, the information is equally scanty. It is almost impossible to discover the quantities of venture crude taken by NIOC, let alone what percentage of this has been exported. Much of the crude exported by NIOC is on a barter basis, making price estimation difficult. Where cash sales have been made, up until 1972 NIOC did not appear to get a very good price. For example, the IPAC oil going to the Madras refinery, which represents 40 million barrels over twenty years, is priced at $1.35 pb implying a discount of about 20% off posted price.(16)

Conclusion

It appears from the above that there have been few problems with respect to offtake and disposition of crude. While this may in part be the result of well written agreements, a more important reason is the small amount of crude being lifted, and the even smaller amount which reaches the open market.

Finance

The financial developments which occured in the Egyptian ventures between 1957-1972 provide many examples of the problems discussed above in the section on the financial characteristics of the agreement.

The Financial Developments of COPE

The financial development of COPE was hampered from the start by the looseness with which the 1957 agreement was written.(17) The problems began with two sections of the agreement, the repayment of exploration expenses and the size of the share capital.

By the 1957 agreement, the exploration expenses already incurred by IEOC were to be regarded as an interest bearing loan to be amortized out of COPE's profit. Consequently, this meant that the size of the taxable profits was considerably reduced, this reduced the revenue which accrued to Egypt through the profits tax.(18) The GPA objected to this when the implications were realized after IEOC presented a bill for exploration of $20 million. In order to limit the effects, the GPA began a systematic check on all the items which made up the total, since there had been no monitoring of exploration expenses between 1952-57. Originally, the acreage had been operated on COOP's behalf by Socal and Bank Hoffman for the first two years. This meant that many of the bills presented by IEOC had originally 'belonged' to Socal and Bank Hoffman. This made it fairly easy for EGPC to object to some of the bills since IEOC was not in possession of all the details, and so found difficulty in justifying some of the expenses. The dispute grew until both sides agreed to put the problem before an arbitrator(19) who eventually reduced the claim to $10 million.

When COPE was formed, the initial share capital was LE 10 million. While this could be increased as required, the consent of both parties was needed to do so. Up to 1966, IEOC refused to do so.

At first the GPA attempted to persuade IEOC to capitalize the exploration expenses, but since this meant COPE (and therefore IEOC) would pay more tax IEOC refused. After the reduction of the outstanding exploration expenditure by arbitration, the question of capitalization of these expenditures lapsed.

However, the question of the relatively low share capital was raised again in the early sixties in relation to the gearing ratio.[20] The initial share capital of LE 10 million did not take operations very far. As a result, because of IEOC's refusal to increase the share capital, COPE had to borrow money to finance the operations thereby continually increasing the gearing ratio.[21] COPE was borrowing a high proportion of this owed capital from the Egyptian banking sector which became part of the public sector after 1960. This meant that IEOC was putting very little into COPE compared to the Egyptian side.

Added to the resentment caused by this imbalance of input sources, resentment from the Egyptian side was also caused over the question of dividend versus ploughback. IEOC wished for a policy of the maximum possible distribution of the profits, which it then repatriated. On the other hand, the Egyptian side wished to reinvest the maximum back into COPE. In this argument IEOC tended to win, and in 1961 and 1963 nearly 90% of the net profits were distributed.

IEOC's actions with respect to these disputes, and therefore ENI's, amounted to a desire to extract the maximum possible from COPE with the minimum commitment of resources. This is in keeping with the policy of a company which has spread its limited resources over too wide an area, and simply could not afford to commit above a minimal level of resources. That ENI has acted in this way is confirmed by others.[22]

A further problem which occured in this period concerns the price of the crude oil, and is of interest since it illustrates a basic weakness in the partially integrated venture. It would be expected that COPE, in order to maximize profits, would try to obtain the highest possible price as the marketer of the crude oil. However, the foreign partner to the venture is often a major buyer of oil from the venture. As a result the foreign company faces a conflict between buying the crude cheaply, thus acquiring oil, or paying a higher price and benefiting from the increased profit of the venture. In the case of ENI, IEOC's interests in the accounting profits of COPE has already been shown to be low. Coupled with the fact that 'ENI always had needed oil, and needed it badly',[23] it is apparent that ENI felt its interests to lie in securing cheap crude oil. Consequently, a certain amount of friction existed since IEOC's loyalties tended to push for a lower price for the crude oil. Naturally, the Egyptian side wanted to maximize the price of the crude, and at one stage the Government objected to the use of the realized price as a base upon which to calculate royalties, on the grounds that the price was not 'sufficiently realistic'. Eventually a compromise was negotiated.

COPE's financial development was further blighted during its enmeshment in the public sector. Under the 'socialist' laws of 1961, company's were obliged to distribute 25% of profits to the workers. IEOC complained bitterly about this measure, and a compromise was reached in Presidential Decree 179.[24] This granted IEOC a minimum 20% of the net profits so long as IEOC held title to 50% of COPE's share capital. Because this guarantee meant 20% of net profits plus Government payments, if production was so small that no accounting profit was made, then the Government could only receive 80% of the royalty.

A further aggravation was caused over the control of the foreign exchange resources when COPE was taken into the public sector in 1962. Before 1962, IEOC's position in COPE had been fairly strong since it had a considerable say over how the foreign exchange was used.[25] When COPE was nationalized, all the foreign exchange entered the national reserves available to all public sectors. Consequently, COPE, and therefore IEOC lost control of its foreign exchange. This considerably weakened IEOC's bargaining position in COPE.

As a result of all these disagreements in COPE, financial relations deteriorated.[26] In an effort to solve all outstanding financial disputes, an agreement was negotiated and signed in 1966. By this agreement, the capital of COPE was increased by LE 6 million, both sides contributing half, IEOC provided part of its share from the profits of previous years, some of which were 'frozen' during the dispute. ENI approved COPE's accounts since 1962,[27] and IEOC agreed to postpone its share of COPE's profits for two years if output fell below 5 million cubic metres per annum.[28] Finally ENI agreed to loan EGPC $8 million repayable over five years at 2% interest per annum. How far this agreement provided a solution to COPE's problems is not clear since its operating fields were lost in June 1967 when the company effectively ceased operations.

Since 1967, Egypt appears to have won the final round in the financial battle. Under the 'socialist laws' which govern COPE, the staff of COPE could not be made redundant. Consequently since 1967 COPE must have been running at a considerable loss.[29] As COPE would be unable to raise a loan, both sides must meet the losses. The implication of this is that IEOC has had to foot half the wages bill since 1967 with no prospect of a return.[30]

The financial history of COPE provides a good example of how an attempt by one partner to follow its own interests without compromise can lead to the possible failure of the venture. It also illustrates how the initial agreement can set the tone for the whole operation. However, Egypt, in terms of experience, gained a great deal from COPE, as a result, the other ventures were designed with the problems of COPE in mind. Without doubt, the financial problems of COPE were to a large extent responsible for the introduction of the operating agency agreement,[31] not only in Egypt in 1963, but throughout the Middle East.

The financial development of the Egyptian operating agencies

After the problems with COPE, the objectives of the financial aspects of the operating agency agreements were twofold. Firstly, to keep the agreement as simple as possible, secondly to ensure that the responsibility for finance rested on the two partners rather than the ventures.

GUPCO was the first agency to be formed in 1966 when the special clause regarding Pan-Am's obligation to provide development finance was renegotiated, reducing the rate of interest on the development loan to 3.5% instead of 7%. By the end of 1966, it became obvious that the $15 million supplied by Pan-Am to develop the field (El Morgan) would not be sufficient, and that a further $27 million would be required. Pan-Am agreed to arrange the necessary loans for EGPC who borrowed $7 million from the United States Banker's Trust Company, and $6.5 million from the Chase Manhattan Bank. Also Pan-Am agreed to buy oil from EGPC to cover the amortization of these loans which have duly been repaid. EGPC and Pan-Am have formed two other operating companies, FAPCO and NIPCO, but while both have

separate charters, the two agencies have the same offices and staff as GUPCO in order to save on administrative expenses.

As of June 30th 1971, Pan-Am had spent $70.9 million on exploration, while GUPCO had made a joint capital investment of $123.5 million of which 24.4% had been in Egyptian currency.(32) Of this total capital investment, $7 million had been for joint exploration which implies that EGPC has committed $1.25 million of foreign exchange as risk capital for exploration.(33) Dr. M. Amin(34) points out that without the help of the foreign partner in developing El Morgan, there could have been a delay of 5-6 years for the Egyptian Government to raise the necessary finance alone, a sum of $62 million spent over three years, thus delaying production by 2-3 years.

The history of WEPCO provides a similar experience. The Alamein field was to cost $12 million to develop, of this $4.5 million was provided by EGPC in Egyptian currency, the remaining $1.5 million of EGPC's contribution was to come from foreign exchange credit provided by Phillips. In 1971, Phillips' resources on an international level were being put into Nigeria and the North Sea on a large scale.(35) As a result, the resources available to Phillips for exploration were becoming very stretched. In order to assist Phillips' obligations in the Western Desert concession, Phillips, with the consent of EGPC, permitted Hispanoil a 20% interest in Phillips share of WEPCO to provide assistance with the risk capital. This provides a good example of a situation where the foreign company may prefer to invest in other areas of its international operations because expected returns are greater, although in this case it could be achieved without affecting the Egyptian operators.

The financial benefits which have accrued to the host country

An important question to be asked in relation to joint ventures is how their financial benefits to the host country has compared with other forms of agreement? And how far such data and experience should influence the policy makers in their choice of agreement.

In partial answer to this question it is possible to build a model to make such a comparison. Three attempts at this can be mentioned. T.R. Stauffer[36] compared the ERAP-NIOC 1966 agreement[37] with an old style concession agreement, and found the latter to be more profitable to the host country, subject to certain assumptions about the amount and cost of oil[38] Dr. K. Shair[39] produced a paper which compared the Hispanoil KNPC 1967 agreement with the Auxirap-Petromin 1965 agreement and the ERAP-NIOC 1966 agreement. In this comparison the Hispanoil agreement was found to be 'better'[40] than the other two agreements, unless a large quantity of low cost oil was found, in which case the ERAP agreement was 'better'. Finally the most sophisticated model was produced by R.S. Macia.[41] This compared a joint venture agreement, with an old style concession, with the joint venture emerging as the 'better' of the two.

The differences in the conclusions of these models arise from the fact that the conditions of production, cost etc. vary between the models. For example the three start from different posted prices ranging from $1.40 p.b. to $2.274 p.b. while the assumed realized price range between 14%-20% below the posted price. The purpose is to compare conditions under which one or the other agreement works out best. Since in an actual situation such

conditions are not known, these models are of limited value as a tool to decide upon which type of agreement to opt for. For example, if it is known that where large quantities of low cost oil are found, the contract agreement provides the maximum benefit; it still has to be assumed by those who decide which agreement to use, what the expected production conditions will be. In view of the uncertainty which surrounds exploration, such assumptions concerning production conditions are likely to be arbitrary. In this situation, unless one type of agreement emerges as better for all or even most production conditions, then such model building provides no clue as to which agreement provides the maximum benefit, unless production conditions are already known. As a result, they are of little use as a tool for the policy maker.

The only way to assess an agreements' effects on the benefits which accrue to the host country is to apply data from a specific company after a suitable time period has elapsed. This is then an accounting reality rather than a model.[42] From this emerges a further problem related to profit versus profitability.

Under the old style concession, the concern of the Government was their share of the profit. Thus the criterion of 'success' was how far the country succeeded in capturing the 'profit' attributed to crude oil. This was basically a fiscal problem. Similarly, in the case of a contract agreement the criteria was also fiscal, coupled with the hire price for the services of the foreign company. In these situations, the criteria were relatively simple, an agreement which captured 60% of the 'profit' was 'better' than one which captured only 40% of the 'profit'. The situation for a joint venture is quite different.

The fiscal element still remains in connection with the profits attributed to the foreign company, but, more important is the fact that the host country is investing resources into the venture. The implication of this is that it is no longer sufficient to consider the share of the 'profit' which includes the host country's offtake and the fiscal element. Because resources are committed to the venture, the more important criterion is whether the return on the resources compares favourably, or otherwise, with the returns available from committing the resources to other uses. As a result, the returns from a joint venture must not be considered in isolation from alternative uses of the resources.

Having considered some of the problems of evaluation we can now turn to an examination of the direct financial benefits which have accrued to Egypt.

One estimate of Egypt's return on the operating agency was given by Dr. M. Amin in 1971.[43] In this, expenditure by the two operating agencies since 1963-64 was put at $350 million of which the foreign companies supplied $250 million. Egypt's share of the offtake was valued at $240 million. Over the six year period this represents a simple rate of return of 34.3% per annum.

However this figure must also be considered in the light of what may have occured without the presence of the foreign company. Dr. M. Amin,[44] discussing the development of El Morgan, pointed out that over the development period of 2-3 years, $62 million had been invested. Without the help of the foreign company, it could have taken the Government 5-6 years to raise the necessary capital; a delay of 2-3 years. If the total return on the field over its life

after costs is assumed to be $1,000 million, and a rate of return on investment of 10% is assumed. This represents to Egypt a potential loss in income of $200-300 million.

Unfortunately there is insufficient data on the financial state of the joint ventures. This is partly due to security factors, but is also because of the Egyptian habit of aggregating the joint venture details with the whole oil industry. Because of this lack of available data, no definitive conclusion can be reached as to the benefits to Egypt of the joint venture arrangements.

Management

The purpose of this chapter on management is to examine the management problems involved in the operation of a joint venture, and what attempts have been made to overcome them. In studying these problems, exclusive attention will be given to the problems which arise from joint ownership and control. It is not intended to examine the general problems which face managements who operate in economically underdeveloped areas.

There has been an increasing interest in joint ventures as a subject of study, to a certain extent as an adjunct to the more general interest in the multinational corporation. Despite this interest, very little has been done in the academic field to examine joint venture management problems, beyond an examination of generalities.[45] Even within industry itself, this aspect appears to have attracted very limited attention until recently, possibly due to the 'comfortable operating margins' which result from such ventures.[46]

The material used will be drawn entirely from Egyptian experience. The example provides a major advantage since the Egyptian objective was to participate to the maximum in the ventures. This avoids a situation where joint ownership is not accompanied by joint control i.e. one of the partners acting as a sleeping partner. Where there is a sleeping partner, the problems which result from joint control are minimized. It is these problems which are of interest.

The Management Structure of the Venture

Figure V.2 illustrates the projected organization of COPE based on a study done in 1971[47] in anticipation of a resumption of operations, and is little different from the organization before June 1967. The diagram could equally well apply for the most part to GUPCO or WEPCO.

The levels which are of interest are the Board and the chief execution, since it is here where the problems which arise from joint ownership and control will be most in evidence.

The Board of Directors

When an examination is made of the nature of the Boards of the three ventures, it becomes apparent that the theoretical organization chart can hide very important and real practical differences between the companies. The Board of COPE was intended to function in a similar fashion to a normal Board i.e. as the body which would run the Company. It was intended to act independently of both parents, with the strategy of the Company being formulated by the Directors. It should be remembered that because of COPE's nature as an integrated venture it was in a position to secure

Source: Organization and Functions of COPE, 1971.

Diagram V.2 Management structure of COPE

Board of Directors

Managing Directors

Chairman of the Board and General Manager

GRADE

(Distinguished)

Exploration Services	Operation Services	Field Superintendant Services	Financial Services	Administrative Services	(Superior)
Geological Division	Production Operation Division	Petroleum Engineering Division	Financial Control Division	Organization and Training	(1st)
Geophysical Division	Marine Division	Technical Services Division	Accounting Division	Personnel	
	Materials Division	Laboratory Division			
	Drilling Division				
	Production Division				

DEPARTMENTS DEPARTMENTS DEPARTMENTS (2ND -10TH)

Source: Organization and Functions of COPE, 1971.

finance independently of the parents; either by borrowing, or by means of its sale of crude oil. As a result, in theory, once the Company had been floated, then it could be left to its own devices to operate on the basis of decisions taken by the Board. In reality, this created the seeds of a problem since neither partner was prepared to allow the Company to be run purely through its appointed directions.

At the start of the Company, the Board consisted of four representatives from IEOC and three Egyptian representatives, reflecting IEOC's majority equity holding. In November, 1961 Egypt acquired 1% of the equity making the equity division equal, while the composition of the Board was reversed to include three from IEOC and 4 from the Egyptian side. However, to reflect the equality of the equity holding, it was decided that the Board required a majority of five to pass any resolution. A further change occurred when COPE was taken into the public sector. Under Law 60 of 1963, the workers of COPE were entitled to vote for four members of the Board. To create a Board of manageable size it was decided to reduce the EGPC nominated directors from four to two. Once again to reflect the equality of equity, it was decided that any resolution required a majority of seven. The significance of this addition to the Board was to add a further interest group to the Board the effects of which will be described shortly.

As for the interaction of the Directors from the two sides, as described earlier, their function was, independently of the parents, to formulate the general framework of policy to be carried out by the executive section of the organizational pyramid. Had all gone smoothly, this arrangement might have worked, but due largely to the differences over finance, this did not happen, and the status of the Board and its

role tended to become uncertain, as a result of the interaction of the parents which will be discussed later.

The situation was further complicated after COPE became part of the Egyptian public sector. Under the arrangements which governed the running of public enterprises in Egypt, if the Board of an enterprise failed to agree on an issue, the issue then went for a decision to the General Assembly. The General Assembly consisted of representatives of the public enterprises together with the Minister of Industry. Consequently, if the Board of COPE failed to achieve a majority of seven, as happened over financial matters, the objections of IEOC could simply be overruled by the General Assembly on which IEOC had no representation whatsoever. In effect, this, for the period from 1962-1965 partially neutralized the Board of COPE as the policy making organ. This situation was reflected in Agip's refusal to accept the accounts of COPE. In this period, the lines of control and communication became increasingly confused at the tip of the pyramid.

By 1966 when the financial disagreements had been theoretically settled, the main source of dispute was removed. However, before this had happened, the third interest group in the shape of the four Directors elected by the workers began to impinge on the operations of the Board. There was an increasing pressure from these directors on the Board to take what was regarded by the appointed directors from both sides as a 'short term view' of Company policy. This was largely due to an effort on the part of the elected directors to ensure reelection by attempting to pursue 'popular' policies.(48) At the end of 1965, the Chairman of the Board informed the Minister that he could no longer operate with

the existing Board, which was duly dissolved. A 'temporary' arrangement was instituted whereby the functions of the Board were replaced by the Chairman (appointed by EGPC) and the General Manager (appointed by IEOC).

This development indicates that it was realized by the partners, that the functions of the Board, within the objectives outlined earlier, had become untenable. Support for this interpretation comes from the fact that the 'temporary' arrangement was still in force in June 1967.(49) There had been earlier signs that such a realization was beginning to dawn. For example, Article XXlll of the IEOC-EGPC 1963 agreement declared that major decisions(50) of the Board had to have the unanimous consent of both parties. As well as being a tacit admission that the role of the General Assembly served only to aggravate differences rather than secure agreement; it was also the first suggestion that the Board of COPE was no longer to be viewed as an independent body.

While the Board consisted of only two men, decisions had to be taken with much greater direct collaboration between the two partners. The theoretical independence of COPE from the two partners had been realized to be impractical.

The experience of COPE proved invaluable when the role and functions of the Board of GUPCO and WEPCO were being formulated. From the start, it was apparent that the role of the Boards in the operating agencies were to be very different from that of COPE. These differences were dictated partly by the form of the operating agency, and partly as the result of a deliberate policy decision by the two partners. The operating agency, unlike the partially integrated venture, is totally dependent on the parents, not only in securing finance, but also in

determining the size and distribution of offtake. This necessitates the Directors from both parties being in constant communication with the parents. This dependence and communication was also stressed in the agreements, as reflected by the insertion of a mutual agreement clause.[51] The Directors were to act as a link between the agency and the two partners, and the function of the Board was to formulate the annual budget and work programme in conjunction with the parents, leaving the executive section to operate within this essentially financial framework.

Decisions were taken on the basis of a simple majority, but so far as the major strategic decisions are concerned, i.e. budget and work programme, the vote is a formality since the decision has already been reached by a process of cooperation between the parents to be described later. The Directors are of course independent, and can vote as they wish, but as a result of this cooperation they would be voting on a compromise resolution already worked out to a large extent by the parents. The situation concerning what may be described as tactical decisions is rather different. Within the strategy outlined and generally agreed upon there is inevitably room for manoeuvre, particularly in relation to certain technical matters.

The Chief Executive

From Figure V.1, the peculiarity in structure of a joint venture, and the potential source of many problems, becomes immediately obvious; namely the existence of two chief executives. This situation is inevitable since in virtually all joint venture agreements, while the Chairman of the Board is chosen by the host country, and the General Manager is chosen by the foreign company, both are given equal status as Managing Directors.

Initially in COPE, the situation was even more complicated since Petrofina of Belgium held 40% of the equity of IEOC. There were in fact two General Managers with equal status as Managing Directors together with the Chairman of the Board who was also a Managing Director. As things developed, purely by coincidence, the Belgian was technically orientated, the Italian orientated towards finance and administration,(52) and the two Managers were able to divide the functions accordingly.

Obviously, where status is duplicated in this way it is necessary to delineate the fields of power and responsibility falling to each Managing Director. In the early period, when three managing directors were involved, the following formula for decision taking was arrived at. For contracts of less than LE 100,000, the relevant General Manager and the relevant Egyptian director signed. For contracts greater than this amount, the relevant General Manager and the Chairman of the Board were required to sign.(53) When Petrofina's interest in IEOC was bought out by Agip in April 1961, the situation was reviewed as follows.(54) Certain functions were allotted separately to the two Managing Directors. For example, the Chairman was to represent the Company before the Courts, to call Board meetings and preside over them. The General Manager could purchase equipment, discuss, sign and terminate all rental contracts, all having a maximum value of LE 5,000. Despite this delineation, a large and important series of powers were to be exercised jointly. For example, to discuss and sign contracts for buying goods and selling oil above a value of LE 5,000, appoint and dismiss staff and negotiate all financial arrangements.

The potential difficulties in the above situation come from two sources. The problems of a collegial decision making point[55] at the highest level of day to day decision taking, and the reaction of the Divisional Heads involved in the specific decisions. While 'collegiality favours greater thoroughness in the weighing of administrative decisions'[56], it 'almost inevitably involves obstacles to precise clear, and above all rapid decisions'.[57] Once the Board has outlined the strategy, the responsibility of the Managing Director is to coordinate the activities of the executive in carrying out the tactics needed to achieve the strategy. In the event of a disagreement or uncertainty at the level of Divisional Heads, the Managing Director must take the decision. Major tactical decisions which may alter the strategy are generally referred to the Board. Otherwise, the Managing Director must take the responsibility, and is answerable to the Board for decisions taken. This situation for COPE implied that day to day decisions required the agreement of the two chief executives; not only in the taking of the decisions, but also in their execution. The agreement was needed because these decisions could not be expected to be taken or executed by the Board. Firstly, because this would simply duplicate and amplify collegial indecision. Secondly, because the Italian Directors were non-executive operating from Italy, it was simply not practical to call too many unscheduled Board meetings.

This lack of clarity at a major decision taking point in the structure was aggravated by the reaction of the Divisional Heads involved in the relevant decision. While the five Divisional Heads

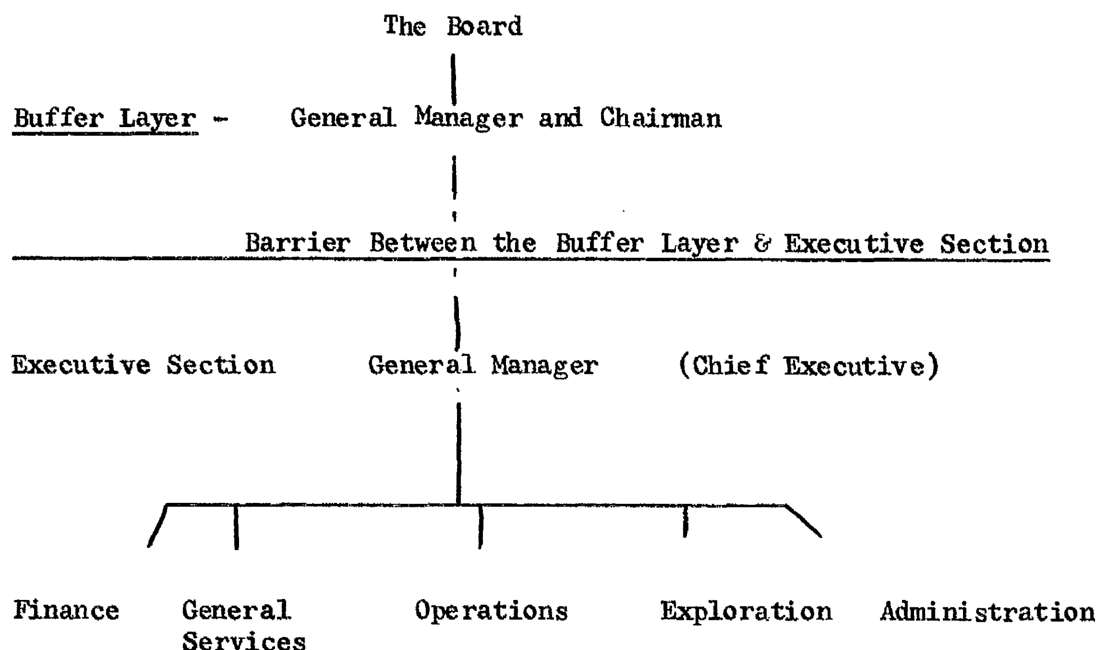
were of mixed nationalities, there was an inevitable process whereby the internal interaction between the Heads and the Two Managing Directors developed along lines of nationality, both at a formal and an informal level. As a result the communications involved in reaching a decision tended in COPE to be on a basis of nationality rather than on a basis of maximum effectiveness, the two not necessarily coinciding. The difficulties associated with collegiality described in the case of COPE led to an effort to overcome them when the organizations of the operating agencies were being formulated and developed.

The following outline draws on the experience of WEPCO, but could equally well apply to GUPCO. It was decided that to avoid the collegial problems of COPE, only one chief executive would be appointed, the General Manager appointed by the foreign company. The General Manager was invested with a considerable amount of power. In effect, once, the annual budget and work programme was agreed upon, he was responsible for all coordination and decision taking, and was allowed to operate without consulting the Board, unless events developed which meant a considerable alteration to the agreed strategy.

After a short time operating under this arrangement, it was felt that such an arrangement gave too much power to the foreign partner in the venture.[58] Consequently, in 1968 a change was made in the organization which contributed to a unique solution to many of the management problems associated with joint ventures. Figure V.3 illustrates the formal structure of the new arrangement. The executive section of the pyramid remained the same with one General

Manager. The change was the introduction of a buffer layer between the General Manager and the Board which, consisted of the General Manager and the Chairman of the Board. This layer was to serve several purposes. Its main function was as a decision taking centre for day to day decisions, which allowed the Egyptian side to take a more active role. The General Manager and the Chairman, would

Figure V.3 The formal structure of the new organization for the operating agencies



Source: WEPCO Annual Report 1968-1969.

jointly make the relevant decision, but these decisions were executed below the barrier by the General Manager as chief of the executive part of the structure. If the buffer layer was unable to reach agreement, then the question was put before the Board for a fuling.

Officially, the buffer executive barrier could not allow communication and discussion between the Divisional Heads and the Chairman of the Board. For example, the Chairman could only receive information which related to the operation of the executive section through the General Manager. The only time the Chairman was allowed to pass officially through the frontier into the executive level, was to attend the twice monthly meeting of the Coordinating Committee(59) whose function was to map out the development and execution of the work programme. This was simply regarded as an expedient to speed the decision taking process. Without it, the Committee could make no decision until the General Manager had, as it were, floated to the buffer level to consult, and then floated down again with the decision.

This created a decision making point to deal with day to day operations, a function which any Board would find impossible for the reasons described earlier in relation to COPE.(60) It also created a decision making point which insulated the executive structure from the tempration to use the Chairman as a counter point to the General Manager, in securing a decision for one of the Divisional Heads. To make the difference from COPE more explicit, while the buffer layer of the operating agencies apparently served the same function as the dual Managing Director level of COPE. The former could not, in theory aggravate dualism(61) among Divisional Heads because the layer was

not connected officially to the executive part of the structure. The latter, because it was central to the executive, could and did aggravate dualism. Two dangers become apparent in the operation of the buffer layer. The first problem, which to some extent applies to the dual Managing Director layer of COPE, concerns the interaction between the Chairman and the General Manager. If they fail to agree, then the decision must be referred to the Board. It is obvious that if this happens too often, then the decision is delayed until the Board can deliberate upon it. Since these decisions concern day to day operations, the efficiency of the company must suffer accordingly. The successful cooperation of the two is a necessary condition for the success of the venture.

The second problem arises if the barrier, which is only a line drawn on paper, is ignored by those below or above it. Of course in a real situation there is bound to be unofficial communications across this frontier. The people involved will probably have gone through the industry together sharing a common background, and often may belong to the same clubs etc, thereby meeting at a social level. However, such informal communication is not, per se, bad in so far as it keeps the Chairman in contact with developments in the executive. It becomes dangerous only if these unofficial channels replace the official channels.

To create a structure to operate efficiently under 'normal' conditions is a difficult enough task. Too add the problem of 'jointness' within the structure creates a much greater problem. The buffer layer described above seems to be able to fulfill the organizational need, but its successful operation depends on the quality of the personnel who operate within the framework.

Management Personnel of the Ventures

Employment Policy

The policy adopted by the Egyptian ventures was to secure the best available manpower, irrespective of nationality, subject to a general aim of maximizing the employment of Egyptians. Any post filled by an non Egyptian had to make provision for an Egyptian assistant who would gain experience and eventually take over from the non-Egyptian. While the agreements made no provision to minimize the employment of foreigners, the Government could theoretically control the situation through its control of work permits. In reality, this was merely a formality, and no foreign employee who was required, was refused a permit.

The outcome of this policy has been a fairly rapid decline in the number of foreigners employed in the ventures. Apart from any considerations of Egyptian policy, the foreign companies have been satisfied to allow the increasing employment of Egyptians, partly because it is cheaper to employ an Egyptian than an expatriate.

GUPCO is typical of the three ventures, and table 5.5 shows the changing employment situation.

Table 5.5 The Employees of GUPCO by Nationality

	1966/67	1967/68	1968/69	1969/70	1970/71
Nationals	355	377	440	453	497
Expatriates	28	33	40	37	30
Total	383	410	480	490	527
% of expats.	7.3	8.0	8.3	7.5	5.7

Source: GUPCO Annual Reports.

In 1970, the total labour force employed by the operating agencies, including staff on contract, was as follows. GUPCO employed 1,642 to produce 82 million barrels from one field, while WEPCO employed 761 to produce 14 million barrels from one field.(62) In the projected number for COPE, 2,231 were to be employed to produce oil from the Belayim field which in its last year of operation in Egyptian hands produced a little over 30 million barrels. This discrepancy in size requires some explanation, since the only additional function carried out by COPE was the marketing of the oil which accounts for only ten employees. Part of the explanation lies in the use of the Egyptian public sector to alleviate white collar unemployment by overstaffing.

As important as the size of the Egyptian element, distribution of this element throughout the grades is equally important. At the start of the ventures, the Divisional Heads were drawn from the foreign company. Within a very short time, the Egyptian assistants to these Divisional Heads took over from the foreign staff. For example, in WEPCO, out of the six senior positions in 1969/70 excluding the Chairman and General Manager, whose nationality is fixed by the agreement, four were Americans. By 1972, all six posts were occupied by Egyptians. Compare this with a similar Iranian venture, IMINOCO. In 1969/70 out of the five senior positions, four were non Iranian, by 1972 the situation was unchanged.(64)

In the case of the operating agencies, the employee grading system was left to each individual agency to determine. However, COPE, as part of the public sector came under the Laws which governed public employment. As a result its employee grading system was determined

by Law 3546 of 1963. This instituted the twelve grades enumerated in Figure V.2 page 122. Promotion up the grades was dependent not only on merit, but also on the number of employees in each grade. Since staff turnover was low,[66] promotion up the grades, and the consequent increase in salary, was often hampered by the fact that the next grade already had its complement allowed by law. Consequently, promising staff often had to be held back from posts of greater responsibility. In 1971 this problem was realized, and the system altered,[66] by the creation of only four very broad grades. This provided greater flexibility in promotion, since the salary scales of each new grade were much wider than in the old grades.

The Problem of Dualism

Dualism in the management of the venture arises because of the existence within the management structure of managers whose loyalty is divided between the venture and one of the parent companies. In this situation, the manager may pursue the interests and objectives of the parent company rather than those of the venture. As described earlier, these need not necessarily coincide. This dualistic situation can arise either with the direct encouragement of the parent company, or as a reaction of the manager in response to an ambiguous role.

Dualism begins largely because on the formation of the venture, the senior management is drawn from the parent company.[67] Two examples will serve to illustrate this. In the early days of WEPCO, some of the Egyptian staff tended to 'think EGPC too much, and WEPCO too little.'[68] As a result, there was a tendency for some of the Egyptian staff to try to by-pass the American General Manager and to

enter the buffer layer in an effort to circumvent the official communication channels. At the same time the General Manager of WEPCO was also head of Phillips in Egypt. Because of this duality of roles he constantly tried to 'change hats', depending on whose interests he was representing at the time. In the case of WEPCO, as there were no evident policy disagreements, this dualism did not cause any difficulties however, the potential danger existed.

Over time, the higher management positions can be filled from the lower echelons of the venture by the promotion. Hence the dualism caused by the managers' immediate transfer from parent to venture is diminished.(69) However, the expectations of the staff with respect to their original parent companies and vice versa can perpetuate dualism in the following way.

The Divisional Heads of the venture are responsible in theory only to the Board of the venture, and their promotion prospects within the company are also determined by the Board. But, for both the Egyptian and foreign employees, their promotion and betterment prospects extend beyond the venture into the Parent company. This is especially true of the Egyptians whose international job mobility is more limited than that of the foreign staff, who can more easily gain promotion by changing companies. Where the Divisional Head is a Director on the Board, as many are, then he is forced to consider his relations with the parent company to an even greater extent, since as a Director he is accountable directly to the parent company. In this situation the manager may well take a decision in the light of where he believes his interests lie.

To clarify this further, in the Egyptian agencies one of the greatest sources of dispute concerns the siting of drilling rigs. One might expect that when the differences of opinion arose on such

a technical question, these differences would follow no obvious pattern. Yet frequently the division appeared to follow lines of nationality. In fact in two cases, one in GUPCO and one in WEPCO, the Egyptian side had threatened to invoke the sole risk clause over the question of where to site a rig.(70)

In such a situation where the two senior people from the two partners are known to disagree over a technical matter, it is likely that the technical staff will believe it to be in their own interests to agree with their own man, and divide along national lines. Of course, this does not always happen.

Such conflicts of loyalties must affect the decision process, especially if the parents expect their 'representatives' to 'guard' their interests. From this, the objectives of the parents towards the venture can be seen to be vital. If the parents are in conflict, this must reflect itself on the attitudes of the staff of the venture. Within every company there are likely to be disputes and disagreements. What is special in a joint venture is the polarisation of any disputes into two national groups.

The problem of dualism can occur at levels below that of the chief executive level described earlier if the nationalities of the Divisional Heads differ. At this level it can manifest itself in a lack of communication and coordination between essentially inter-dependent divisions. To reduce conflict at this point the Divisional Heads may have to be drawn from one nationality. This is what has happened in the Egyptian operating agencies, but its success requires a supply of suitability qualified personnel. Where all Divisional Heads are of one nationality there may then be conflict if the General

Manager is another nationality, as in Egypt. Such conflict is less dangerous because the individuals are not of the same status in the heirarchy, and a chain of command is involved, which is not the case between Divisional Heads.

Cultural Differences

Dualism may also arise from differences in the cultural background of the managers, particularly when one group comes from a 'developed' environment, and the other from and 'undeveloped' environment. This cultural dualism is thought by many writers in the field to reflect differences in work and managerial philosophy.[71]

That cultural differences do exist is obvious, but they may be exagerated, especially in relation to senior managers, many of whom may have been trained in Western Business Schools.

In a study by A.K. Rifai entitled 'The Impact of the Egyptian Environment on the Managerial Function of American Oil Companies in Egypt'[72] the question of cultural dualism is examined. Table 5.6 below outlines the fields where such differences exist and their magnitude. The effects of these differences are hard to assess, but Rifai shows differences in areas of procedure and policy adopted by the American and Egyptian managers. The results are reproduced in Table 5.7. The problem is assuming the casual link between the two sets of data.

Table 5.6 Differences between Egyptian personnel and American personnel

	Top managers	Middle managers	Total of respondents who felt there was much difference
1. Relation to subordinates	24	28	52
2. Initiative	21	26	47
3. Training	19	26	45
4. Motivation	17	24	41
5. Personality traits	14	18	32
6. Skill	14	16	30
7. Education	4	6	10
8. Personal adjustment	3	6	9
Total respondents	29	37	66

The figures under the columns headed top and middle management give the number of respondents who felt there was much difference in relation to the subjects listed in rows 1-8 between Egyptian and American personnel. The number of respondents asked was 66.

Source: Rifai op.cit. Table 39 p. 263-264.

Table 5.7 Similarities of procedure and policy used in Egypt as compared with the USA

	% Very similar	% Somewhat similar	% Different	% No response
Day to day decisions	39	43	7	11
Planning	32	54	11	6
Organization	27	40	26	5
Motivating	13	42	44	1
Controlling	14	58	20	7
Production	18	42	13	26
Marketing	4	23	15	58
Procurement	4	31	39	26
Finance	8	37	34	20
Personnel	7	48	37	8

The total number of respondents was 84. Where the four columns do not total 100%, the error is due to rounding.

Source: Rifai op.cit. Table 17 p. 240.

The only evidence to date on the effect of cultural differences on joint venture management comes from Franko.(73) He examined American participation in joint ventures in many countries, and ranked the host countries according to cultural differences with the USA. He then correlated this with the ranking of the instability(74) of the countries' joint ventures. The result was a significant negative correlation, thus suggesting that the greater the cultural similarity of the two countries, the greater the instability of the ventures!

The Influence of the Parents on the Management of the Ventures

In the management structure, an examination was made of the channels through which senior management operated the ventures. These senior managers are accountable to the parent companies. The purpose of this section is to examine what influence these parents have, and how it has been used.

The Sources of influence available to the parents

The most direct source of influence available to the parent companies lies in their appointment of the Directors which make up the Board. Their appointed representatives can then be 'influenced' by direct instructions from their parent Boards or through the mechanism of influence described under dualism. Neither parent can give direct instructions at any level in the venture below the Board, but influence can be exerted again through the mechanism of dualism. Also, it is possible for either parent to 'get at' a Divisional Head through its influence on the Board of the venture.

In the case of COPE, the partially integrated venture, neither parent had any other form of direct influence, before nationalization. The operating agency parents however did have a direct veto, over and above their representatives on the Board, on the annual budget and work programme. Once these had been set, the parents could have no further control over the operations, other than through their Directors, provided there was no major alteration to the budget or work programme.

A source of control available only to the foreign company lay in its control over foreign exchange supplies. In the case of IEOC, this lasted until 1962.(75) The operating agencies were virtually

entirely dependent on the foreign company, either directly,[76] or indirectly through the foreign company arranging loans from other institutions.[77] Since the supplies of foreign exchange were essential to the operation, the foreign company was placed in a strong position with respect to influence in the venture.

A further source of influence attributed soley to the foreign company in joint ventures derives from the company's control of the technology.[78] To what extent this provides influence in the venture, depends upon the level of sophistication of the host country representatives. In the case of Egypt, beyond a small element of esoteric technicalities, the technology is equally available to both sides. For this reason, the foreign companies which have operated in Egypt, have had only a slight advantage over the Egyptians in this respect.

The influence which can be attributed only to the national oil company derives largely from the role of the Government. In Egypt, the Government is always very much a part of the initial agreement. The Minister of Industry and Power must, by Law 86 of 1956 be a signatory to the agreement, and the agreement does not become effective until confirmed by a Law. In addition, the agreement grants the Government wide power with respect to inspection of sites, accounts etc., and also over disposition of offtake.[79] In the case of COPE, after nationalization the Government as head of the public sector had a considerable potential influence through its control both of planning and foreign exchange.

The use of parental influence in Egyptian ventures

The Egyptian Directors have not been given 'voting instructions' by EGPC, but allowed to vote on the basis of their own judgement. Nevertheless, their accountability to the EGPC Board remains, which must influence their judgement to some extent since the Egyptian Directors, are 'aware' of the views of the EGPC on different issues.(80) No information is available on what chain of command is involved, if any, between the foreign company's parent Board and its representatives.(81)

As the senior management levels of the ventures are occupied by Egyptians, so the foreign directors have tended to become non-executive. This has two implications for parental influence. Firstly, the foreign companies have tended to exert less influence over daily operations as their numbers in the executive managerial sections have declined. Although the head of the executive sections, i.e. the General Manager, is appointed by the foreign company, his first responsibility is to the Board of the venture, not the Board of the foreign parent. Secondly, as non-executive Directors, the foreign Board members will tend to be briefed by the parent company rather than the venture. In this situation the Director is more likely to think in terms of the parent's interests than that of the venture. When the two coincide, as in GUPCO and WEPCO, there is little difficulty. If there is conflict, as in COPE, this will tend to accentuate the polarisation of views on the Board. This in turn may make a compromise solution more difficult to achieve as in the case of COPE's financial problems.

The effective use of parental influence is also a function of the communication channels between the parent and venture, and between the parents themselves. In the case of COPE, these channels were limited. There was no provision for official inter-parental communication beyond COPE's Board, while the only official parental source of information about the venture was the Annual Report and the minutes of Board meetings. These limited official channels reflected the expectation that the parents would be passive, and not exert influence beyond the appointment of the Directors. When the parents did in fact try to exert influence there were no official channels for communication between the parents. Such channels may have assisted a solution to the conflict which arose in the first place from the interference of the parents. The only communication was through informal channels. The disadvantage of informal channels is that the two parties had access to different sources of information, which made inter-parental discussion more difficult. Not until direct negotiations opened between the parents was a solution to the conflict found in 1966.

To counter the above situation, emphasis on official communication between the participants was made in the agreements which formed the operating agencies. The direct parental negotiations were particularly relevant to the formation of the budget and work programme. To facilitate these negotiations, both ventures were expected to send a considerable volume of information to the parents. WEPCO, for example, sends weekly reports to each parent which appraises them of the situation. Of course, unofficial communication also exists,[82] but as a supplement to the official channels rather than as an alternative.

The influence exerted by the Government in Egypt has tended to be minimal. In practice, the responsibility for the influence which the Government could weild has been handed to EGPC. The role of EGPC as both partner and Government agent is regarded by the foreign partner as a considerable advantage.(83) Firstly,it means that the decisions are made by oilmen who are aware of the economics and technology of the problems. Secondly, it speeds decision taking in a situation where Ministerial approval is required by the agreement. When the Government is involved, the decision is taken by the Minister who acts on the advice of the EGPC. While his is still the final decision, he must give good reasons for ignoring the advice of EGPC. In practice, there have been very few occasion when the Minister has ignored the advice of the EGPC, and these usually involved social rather than purely financial accounting criteria.(84)

A field where the Government has exerted influence over the ventures is procurement, this to minimize the outlays of foreign exchange. The Government for example, put pressure on the ventures to utilize some Russian drilling equipment bought in a Barter deal. Despite the initial reluctance of the foreign partner, the ventures eventually agreed to try them with satisfactory results.

The notable exception to the Government not using its potential influence was the nationalization of COPE. As a consequence, in the event of a dispute, control of COPE passed to the General Assemble on which IEOC had no voice.(85) However, even in this situation IEOC retained an element of influence by virtue of its ability to withdraw from the venture, either partially or totally.(86) In reaction to IEOC's partial withdrawal, the Egyptian Government eventually

allowed IEOC to exercise direct influence over COPE in the ways which had been used before nationalization. This was openly agreed in the IEOC-EGPC 1963 agreement.(87) The operating agencies were specifically excluded from the Laws which applied to the public sector, simply because no foreign company was prepared to enter a venture in which the Egyptian influence was likely to be much stronger than their own.

In the case of Egypt, nationalism appears to have had very little influence on the operations of the companies. R.K. Rifai found that the American managers who responded to the questionnaire felt the Egyptian nationalism had very little effect on their formal relations with Egyptian colleagues, either individually or institutionally. This feeling was stronger the higher the respondent level in the management structure. At a time when the Egyptian Government was calling on the Arab world to use oil as a weapon against the United States in the fight against Israel, a senior American Manager expressed to me no fear that this would affect the venture which his company helped to run. He felt the Egyptian Government would not act in a way that would hurt their own interests as much as those of the American company. Pressure from outside Egypt occurs occasionally upon the Government to be 'less soft to the foreign companies', but with little effect.(88)

The role of the Parents in Disputes

Initially the role of the parents in a dispute tends to be as the sources of different objectives which create conflict within the venture. The most obvious example of this to date is the different financial objectives of the two partners of COPE outlined earlier.

The only differences which have occurred directly between the parents in the operating agencies concerns whether or not a project is commercial.[89] The technical disputes tended to be confined within the venture. Only twice have the parents themselves both become involved in such a technical dispute, both over the siting of wild cats. The role of the parents in such disputes has been to act as mediators to provide a solution. If no compromise is forthcoming, then the sole risk clause can be operated.

If neither party can influence the other to reach a compromise, then the final influence which can be exerted by the foreign company is withdrawal from the venture. This withdrawal need not be immediate but can be partial. Several examples from COPE between 1960-66 will serve to illustrate what is meant by partial withdrawal. The IEOC-EGPC 1963 agreement was in fact initialled in November 1961,[90] but IEOC kept postponing final signature in an effort to influence the outcome of the financial and nationalization disputes between 1961-62. Similarly, before the 1966 financial agreement, IEOC held up a decision to drill eight further development wells on the Belayim field until the agreement was signed. Also, between 1962-65, IEOC refused to accept COPE's accounts. All these methods amounted to an attempt by IEOC to put pressure on EGPC to accept IEOC's objectives by simulating the beginning of a withdrawal by IEOC from COPE.[91]

As to which parent exerted the most influence in the ventures, no clear victor emerges. While the extent of influence fluctuated between the parents on balance, the influence was approximately equal. In the case of COPE, this is supported by the fact tha the

disputes lasted so long. Had either partner been able to exert a much greater influence over his opposite number, most of the issues would have been decided much sooner, one way or the other.

Conclusion

The two sides to the joint venture bring certain skills and resources to operate the venture. These skills and resources complement each other. However, the key to the successful operation of the venture lies in the fact that these complementarities cannot resolve all conflict. There remains areas of conflict which must be resolved by management. The nature of the initial agreement, and the formal management structure are the means by which the area of conflict can be reduced, how these means are used is a function almost entirely of the quality of the management. Egyptian experience suggests that the more 'sophisticated' and competent the management is from both sides, the greater the chance of a resolution of these areas of conflict. If one side to the agreement dominates the venture, so long as the other side seeks influence over the venture, then the areas of conflict will not be resolved and may grow wider.

CHAPTER VI

'Participation' and Joint Ventures[1]

In 1972, a general agreement was drawn up between five of the major oil producing countries and ten oil companies, which provided the guidelines whereby the former acquired 'participation' in the concession operated by the eight affiliated companies owned by the majors. This was achieved by granting the host governments a share in the equity of these production affiliates, thereby converting these major concession operators into equity joint ventures in the sense defined at the beginning of this study.

The anticipated creation of these 'participation' ventures caused considerable discussions, both in oil and academic circles from 1967 onwards. These discussions concentrated on both the viability of such ventures, and their possible effects on the world oil industry. However, the discussions suffered from the very limited evidence available on which any conclusions could be based.

In many ways the proposed 'participation' ventures are similar to the joint ventures which have formed the subject of this study. For this reason, much light can be thrown upon the 'participation' discussion by reference to this evidence. Therefore the purpose of this concluding chapter is firstly, to outline the developments which led up to the 1972 agreement. Secondly, to examine carefully the differences between the equity joint ventures already studied, and the proposed 'participation' venture. Finally, to examine the main aspects of the debate which took place from 1967 to the present, and to use the evidence of the equity joint ventures to clarify this debate.

'Participation'

Developments before 1967

While between 1967-1973 'Participation' became a central issue in oil circles, participation in a general sense was by no means a novel idea in 1967.

In the D'Arcy concession of 1901, the Ottoman Government had the right to receive £20,000 worth of the equity of any company set up.(2) Similarly, Article 8 of the San Remo Agreement of 1920 between Great Britain and France provided that if a private company was set up to exploit oil in Mesopotamia then '.... the native Government or other native interests should be allowed, if they so desire, to participate up to a maximum of 20% of the share capital of the said company'. However when the concession between the Iraqi Government and the Turkish Petroleum Company (the forerunner of the IPC) was negotiated and signed in 1924-25, Article 8 was not included. Instead, a clause which allowed Iraqi interests 20% of any new share issue was included.(3) By article 32 of the concession granted to Standard Oil California in 1933 by Saudi Arabia, Saudi 'inhabitants' were 'allowed' to subscribe to 20% of any stocks issued to the public. Despite all these clauses, by 1960 no host government had been able to secure any share of the 'equity' of any of the major operating companies, usually on the grounds that these companies were not public companies, and therefore did not issue shares to the public.

This exclusion of the host country from any direct participation in the internal decision making processes of the operating companies was a cause for increasing dissatisfaction. The general

dissatisfaction with the 'old style' concession has already been outlined.(4) While many of the disputes with respect to financial arrangements, relinquishment etc. were subject to negotiated settlement, on the question of the 'managerial freedom' of the companies there was little progress.(5)

For newly let acreage the solution to this impasse was relatively simple. The 'old style' concession was simply replaced by newer forms of agreement which granted participation in one form or another to the host governments. However, the fact that nothing was done to accomodate host country demands in the major concessions, which after all dominated oil production, caused increasing frustration. This frustration was by no means confined to the oil producing countries of the Middle East, but was reflected in many countries where a national resource of some importance to the economy was being developed by foreign companies. This general frustration was reflected in a series of United Nations resolutions on the question of 'permanent sovereignty' over national resources.

The first resolution was passed in 1952, and followed by a series, each of which emphasized the rights of the nation state over its own resources.(6) In December 1962, a Resolution recognized the right of a country to dispose of its natural wealth in accordance with its national interests. However, as a compromise it also required the state to pay compensation in the event that such a 'disposition' would mean the displacement of a foreign company.

In 1966, Resolution 2158 was even more explicit on host country rights. Host countries were 'advised', by exercising their

permanent sovereignty, to secure the maximum exploitation of natural resources and to achieve this by the accelerated acquisition by developing nations of full control over production operations, managing and marketing. Host countries were urged 'to secure and increase their share in the administration of enterprises which are fully and partly operated by foreign capital.[7] Nationalization was not in itself desirable except in so far as it may provide the means to maximize the exploitation of the national resource. These UN resolutions provided both form and respectability to the growing discontent in Middle East oil producing countries.

The foreign companies' refusal to allow the host governments any direct role in the operating companies, led to increasing demands from elements within the host countries for the nationalization of the foreign companies. While these demands gained mass popular support, those responsible for policy in the host countries were far from enthusiastic over such a course of action. The split between the pro and anti nationalization groups widened and the bitterness which marked the division was well illustrated at the 6th Arab Petroleum Congress in March 1967.[8] At this congress the anti-nationalization group, led by Saudi Arabia and Kuwait, came under bitter attack with accusations of company bribery and CIA involvement. The anti-nationalization group found themselves at a considerable disadvantage, since apart from their vague endorsement of recent joint venture agreements,[9] they had no specific alternative strategy to offer.

It was this lack of an alternative strategy to nationalization, together with the ideas of permanent sovereignty as espoused in the UN resolutions, which did much to generate the idea of 'participation'.

The Development of the ideology of 'Participation'

Before the development of the ideology of 'participation' is outlined, some explanation is required of why nationalization found little favour with the policy makers. Many reasons can be outlined, but two dominate the field, the spectre of Mossadegh and the state of the world oil market.

In 1951, Iran had nationalized Anglo-Iranian. Such was the power of the majors that they were able to prevent Iran from selling all but a small amount of the potential production. While the dispute dragged on, Iran's oil revenues fell to almost nill and by the time of the settlement in 1954 the economic cost to Iran had been considerable. In addition, the political cost to Mossadegh was high since he was eventually 'removed' from power by a coup.[10] This example of nationalization and its consequences must have presented a grim reminder to the policy makers of the possible outcome if they too nationalized.

Admittedly, by the middle sixties the power of the majors had begun to be eroded. A process which was accelerated towards the end of the sixties chiefly by the entrance of newcomers. Also, two countries, Egypt and Syria had nationalized foreign oil interests with no drastic after effects, but the two countries were special cases. In Egypt, the interests of the companies had been very small,[11] while in Syria the oil had not even been produced.[12] Despite these two exceptions the majors appeared both willing and able to severely hamper any attempt at nationalization when it mattered. However, even had a host country successfully nationalized,[13] there still remained the problem of the state of the world oil market.

In 1957, the posted prices of crude oil were raised all over the world.(14) Since these increases also meant that host government revenues increased, such a move by the companies would only make sense if these increased prices would actually be received in the arms length market or reflected in higher product prices. In this sense posted prices in mid 1957 were real prices. However, very quickly the increase was realized to have been a mistake. These higher prices were either widely discounted or were being poorly translated to product prices. As a result in 1959 posted prices were reduced. Host country displeasure with this move was increased when posted prices were reduced even further in 1960. This meant a reduction in average per barrel revenue for Kuwait, Saudi Arabia, Iraq and Iran of nearly 8¢ between 1958-1960; in total revenue terms, this meant a loss for example to Iran of $3.3 million on production for 1960.

As a result, the major producers set up the Organization of Petroleum Exporting countries (OPEC) in September 1960, with 'a view to coordinating and unifying the policies of the members,(15) for the purpose of attempting to limit competition which would further weaken prices.(16) Further reduction in posted prices were resisted, and these remained constant until 1970. This meant that posted prices ceased to be real prices, but became instead tax reference prices.

For the decade of the sixties, attention on prices centered on the realized price structure for arms length crude. Initially, the arms length market was small, 1 million barrels per day in 1957. As new buyers and sellers entered the industry its importance increased and by 1968 the size of the arms length market was some 4 million b.d.,

which was about 7% of the world market. Attempts to quantify the price structure in this market are complex and fraught with pitfalls.[17] The general trends appear as follows. The decade began with a slight increase between 1961-62, after which prices fell until 1965. There was a slight improvement in 1966, after which the decline continued to the end of the decade. One of Adelman's estimates of the average realized price for Persian Gulf crude based on a netback from product prices, puts the 1960 price at $1.50 p.b. and the 1967 price at $1.23 p.b.[18] Adelman's general conclusion on prices between 1957-1969 is that 'the trend of prices was down, but the rate of decline was mild and variation great.'[19]

This weakening of the arms length market price structure had serious implications for the nationalization issue. If a country nationalized its oil, then it was into this weakening structure that it was plunging. A major cause of the weakening price structure was the increased independence in the buying and selling of crude oil, not only was the size of the arms length market increasing, the number of participants in the market was also increasing. If a major producer entered the market, then it would be a reasonable assumption that this would only serve to aggravate the weakness. The experience of the national oil companies of the producing countries in the later sixties only confirmed this fear. In fact towards the end of the decade there was increasing speculation that the arms length activities of the national oil companies was in danger of conflicting with OPEC's policies on price stabilization.[20]

In this situation it is easy to appreciate why the policy makers of the major producers were less than enthusiastic at the prospect of nationalization. In effect, they were being asked to leave the warm and cosy house of stability represented by posted prices, for the cold and harsh wilderness of competition. While it is true that in theory such competition could be controlled by collective agreement, the failure of OPEC's attempts to introduce prorationing in the middle sixties was indicative of the probable outcome of any such attempt.[21]

Although the policy makers did not wish to support the growing demands for nationalization, an alternative strategy was becoming a political necessity. This alternative was found in the idea of 'participation'. The main ideologue of 'participation' was Sheik Ahmed Zaki Yamani, the Saudi Arabian Minister of Oil, and it is his statements on the subject which provide the main reasons for, and nature of, participation.

The first tentative outline was given in April 1967, one month after the sixth Arab Petroleum Congress.[22] Yamani stressed that Saudi Arabian oil policy was guided not only by national interest, but also by the 'legal obligation' set by the existing concession agreements and the 'international reputation' of Saudi Arabia for respecting such agreements. The main object of the policy within these constraints was to seek the integration of Petromin into downstream oil operations, possibly by having 'some sort of partnership with the oil companies currently operating in Saudi Arabia.'

This integration was to have several aspects. Firstly, it was to be regarded as a means for Petromin to develop rather than as an end in itself. Secondly, the foreign company would be able to obtain some oil for its own market, while allowing Petromin some privileges for it future market. Finally it was intended that ' a Saudi oil company' would own marketing facilities abroad.

The outline was both vague and tentative. For example on the question of partnership Yamani expressed the hope 'that some sort of joint venture with Aramco, or some of its parent firms, will be realized some day.' However, on one issue, prices, Yamani was both concerned and specific. He stated that Saudi Arabia had been in a position to conclude at least six concession agreements, but had chosen to sign only one. The reason was, that unless a company had a potential market, to provide that company with oil would only encourage 'harmful competition.'

On the 3rd of June 1968, the 'some sort of partnership' was translated into a specific argument.[23] Yamani argued that while Saudi Arabia's policy was based on respect for existing agreements, these agreements must change as circumstances changed. In view of these changed circumstances, 'partnership (by the companies) with the host government is a must, any delay will be paid for by the companies concerned.'[24] He then explained that the objective was a 50-50 partnership which was to extend downstream as well. The ultimate objective was 'control over all oil operations' although the time horizon was left rather vaguely between ten to twenty five years.

The most specific and comprehensive outline of 'participation' was given by Yamani in the paper 'Participation Versus Nationalization, A better Means to Survive' given in the spring of 1969.[25] Yamani argued that the central problem was that of price. Although realized prices had been declining, posted prices had been kept stable. Furthermore, the interests of the majors[26] lay in maintaining crude oil prices for two reasons. Firstly, because of the power of OPEC, the majors could not reduce posted prices, so any further discounts must be met out of their own profits. Secondly, under the existing set up, the majors made the bulk of their profits at the producing end of the industry. As a result, the majors were unlikely to bring about a deterioration of the prices of crude oil as this would harm their profits.

Given these circumstances, Yamani went on to examine what would happen in the event of nationalization. If the upstream activities of the majors were nationalized, then the majors would have no further interest in maintaining crude prices. In fact their interests would be the reverse, since as they were offtakers of crude oil they would seek the cheapest possible crude. Given the surplus capacity of oil, the producers would then become involved in a competitive production race which would bring the price of crude oil down drastically. On these grounds, Yamani ruled out nationalization as a feasible policy, which left the alternative of 'participation'.

He argued that the majors had been able so far to maintain the existing price structure because of their power in the market. However, this power was being undermined by the rise of the independents and the rise of national oil companies of both the producer and consumer

countries.[27] An alliance of the majors and the national oil companies would strengthen the ability of the majors to maintain prices, at the same time it would allow the national oil companies to grow in the market through 'normal channels'. This would not only provide the national oil companies with the benefit of the major's experience in downstream operations, but would also halt price competition between the national oil companies which could undermine the arms length crude market.

For these reasons, 'participation' would have to be downstream as well as upstream, since if it was only upstream, then the host country as a non integrated operator would be selling crude on the arms length market, thereby further weakening the price structure. What was wanted was 'a package deal comprising participation upstream and downstream, both together, to be introduced in a very gradual business like fashion', with the main aim being to safeguard the price structure.

Three elements to upstream participation were envisaged. Part of the offtake would be marketed jointly with the majors through downstream joint ventures, part would be marketed on a commission basis by the foreign companies, and part would be marketed by the national oil company. As for participation downstream, this was to be achieved initially by entry to new joint ventures on a project by project basis. Once the relationship had been established, then the national oil companies could enter the majors' existing downstream operations.

'Participation' was to provide several elements. It was to provide sovereignty over resources since the host government would be able to operate increasing internal control over operations. It

would also provide experience for the host country, particularly in the downstream end of the business. Finally, it would provide both increased income from downstream operations, plus a more stable income from upstream operations. All of these elements were to be provided in a situation where the all important price structure was to be protected from erosion.

From ideology to agreement

As the ideology of 'participation' was unfolded, so it gained support from other major oil producers. Very early on, the pronationalization camp received a considerable set back. After the June war of 1967 conditions appeared to favour nationalization more than at any other time, especially as both the United States and Britain had been directly implicated in the war. Yet, at the Khartoum summit meeting in August 1967 it was decided neither to nationalize nor to cut off oil supplies. An observer of the conference quite accurately stated that as a result 'nationalization prospects had receded.'[28]

Meanwhile, support for the idea of 'participation' grew. For example, in May of 1968 after the ratification of the KNPC-Hispanoil agreement by the Kuwait National Assembly, groups within the assembly began to call for a 'conversion' of the existing Kuwaiti concession. The first formal joint move came in July 1968 when the 16th OPEC conference passed Resolution XVI.90 which endorsed the policy of 'reasonable' participation for the host governments in existing concessions. This was justified by reference to UN Resolution 2518, and by the claim of the change in circumstances which had occurred since the concession had been signed.

In October 1968 Kuwait joined Saudi Arabia in an 'official' demand for 'participation'. This was given by Mr. A.R. Atiqi, the Kuwaiti Minister of Oil in an address to the US-Arab Chamber of Commerce.(29) He argued that the 'old style' concession offered no significant opportunity for the government to take part in the 'management and utilization of the country's natural resources.' 'Participation' would not only present an opportunity to share the management of the operations, but would also enable these operations to be more fully integrated into the local economy. The other major oil producer's in the area also expressed an interest in securing participation.(30)

In July 1971, the 24th OPEC conference passed a further Resolution, XXIV.135 which called upon all member states to 'take immediate steps towards the effective implementation of the principle of participation'. This was followed in September 1971 by Resolution XXV.139 which called on members to 'establish negotiations...(to achieve) ... effective participation.' However, while negotiations began in May of 1972, the united front put up by the OPEC members had weakened. At the end of 1971 Iran began separate negotiations with the Consortium with a view to initiate a new agreement, and in June of 1972, it was officially announced that Iran had no interest in 'participation.' The reasons put forward were that Iran had nationalized the oil in 1951, and the Consortium was simply a contracting company for NIOC, thus 'participation was irrelevant.' Also in June of 1972 Iraq nationalized the IPC, and while Iraq joined the negotiations,(31) interest was limited and Iraq did not sign the final agreement. This weakening was a reflection of the change

in circumstances which had occurred in the industry after 1970, and which led to the eventual collapse of the agreement which was negotiated.[32]

The form of the negotiations was as follows. A general agreement was to be negotiated between the producers as a group, and the companies, also as a group. This agreement was intended to outline the general principles involved. Once this had been established, each country was then to negotiate with its own companies, to reach an implementation agreement. The general agreement was initialled on the 5th October 1972. It was signed by Saudi Arabia and Abu Dhabi on the 20th December 1972, by Qatar on the 4th January 1973 and by Kuwait on the 8th January.[33]

As demands for 'participation' grew, the companies initial reaction was, predictably enough, hostile.[34] However, as demands intensified, and 'participation' was stressed as an alternative to nationalization, the companies bowed to the inevitable and accepted the principle, while attempting to salvage the maximum benefit from it.[35] The key issues in the negotiation were two, the price at which the host country would buy into the operations i.e. the compensation to be paid, and the arrangements for the disposition of offtake.

The buy in price was to lie between two extremes. The host countries wanted to pay the minimum and wished to pay compensation on the above the ground assets based on straight book value. Since many of these assets had been on the books for some time, depreciation had considerably reduced their book value. On the other hand the companies wished to receive the maximum compensation, and wanted the payment to be based on the expected profits which would have accrued to the companies from their below the ground assets i.e. the oil in place.

The disposal of offtake presented several problems, Firstly, how the host country could acquire its share of crude oil without seriously dislocating the companies' existing market commitments. Secondly, there was the question of the disposal of the host countries' share of offtake. Particularly how much was to be sold by the host country, and what role the companies were to play in the disposal of the remainder.

These problems of offtake were made more complex since the demand for downstream participation weakened, and virtually disappeared by the time negotiations began. This meant the host countries would have ownership of very large amounts of crude oil, with no direct integrated channels to feed it into i.e. they would become crude sellers on a large sale. Since this appears to undermine the whole concept of 'participation' some explanation is required.

There were the practical difficulties of negotiating downstream 'participation'. The solution of the upstream participation problems were complex and uncertain, and neither party was willing to embark on even more complex negotiations until the upstream negotiations had been successfully concluded. Even for 'participation' in the downstream operations within the host country, the final agreement merely gave the host country the right to open discussions with the companies.

The main reason for the change was the fact that after 1970, the main fear which had prompted the idea of 'participation, namely the weakening price structure began to recede very rapidly. 1969-70 saw an unexpected increase in the demand for oil products.[36] This resulted, according to Adelman in higher product+realized crude prices and profits for refined products which went largely to the integrated

companies who were also producing oil. As a result, the producing countries felt that they were entitled to a larger tax revenue. Libya began negotiations in January 1970, and because of the companies refusal to meet the demands, began to enforce production cutbacks on the companies. By August 1970 production was nearly one third less than the end of 1969. This artificial shortage put further pressure upon the rising prices, and was in turn aggravated by the 'accidental' closure of Tapline. Finally in October 1970 the companies agreed to the Libyan demands. The Persian Gulf producers followed suit with the result that posted prices began a series of 'leapfrogging' increases. This culminated in the Teheran agreement and the Tripoli agreement in February and April of 1971 respectively. In the Gulf this raised government take by 30¢ p.b. rising to 50¢ p.b. in 1975. For Lybia, it meant an average increase of 64¢ p.b. rising to 78¢ by 1975.

Whatever the causes, This trend of increasing posted prices continued. Table 6.1 below gives the rise in the price of several crudes. This trend was continued after August 1973, and was also reflected in increased product and realized crude prices.

Table 6.1 % increase in posted prices August 31st 1970-August 1973

Saudi Arabia –	light	70%
	medium	85%
	heavy	88%
Kuwait		69%
Abu Dhabi-	Marine	68%
	Murban	68%

Source: PIW 3rd September 1973.

Inevitably, these increases were reflected in the arms length market, and the prices rose accordingly.

The implications of this for the demands for downstream participation were twofold. Firstly, the host countries did not have to go downstream since the companies were quite willing to buy back the crude oil owned by the host countries. This became even truer when the supply situation was aggravated by both Lybia and Kuwait requiring a cutback in production for purposes of conservation.(37) In fact as the participation negotiations proceeded, much of the emphasis switched away from talk of partnership, control of resources, benefits of experience etc, and turned instead to 'participation' as a means for directly increasing host government revenue.

Secondly, the arms length market was not the cold forbidding place it had once been. As the price trend moved upwards, so selling at arms length appeared more attractive. In early 1973 the realized price of Abu Dhabi crude exceeded the posted price. Given this situation, it is not difficult to see why a demand, which arose from fear of competitive price reductions, i.e. downstream participation, became less insistent and for the present was postponed completely.

<u>The General Agreement on 'Participation'</u>

The terms of the agreement can be divided into four sections, ownership shares and control, financial commitment, offtake, prices.(38)

<u>Ownership shares and control</u>

Each Gulf State was to have an initial 25% share of the operating companies as from 1st January 1973. This figure was 5% higher than the figure generally believed to have been demanded at

first by the host countries. The timetable for the acquisition of further shares is given in Table 6.2 below. It should be noted

Table 6.2 Increments and Percentage Levels of Participation

Increment	% Increment	% Levels of Participation	Earliest date of acquisition of % Increment
First	5	30%	1 January 1978
Second	5	35%	" 1979
Third	5	40%	" 1980
Fourth	5	45%	" 1981
Fifth	6	51%	" 1982

Source: Annex 2-General Agreement.

the percentage increments were only options which the Gulf States were entitled to take up if they wished. The agreement then went on to outline precisely what the host country was getting a share of.(39) The Gulf State was to have an interest in the Concessions' crude oil concession rights, in the crude oil produced,(40) and in the crude oil production facilities,(41) tangible or intangible, situated within the state's jurisdiction. The size of the interest depended upon the percentage participation level taken up by the state.

The General Agreement was based on the assumption that the undivided interest form of concession ownership and operation between the State and company would be adopted. However, if the corporate form was adopted, then the principles of the agreement were to be adapted to this form in implementing the agreement.(42)

Article six stipulated that each State, as a participant in a concession, shall have the right 'to take an active part with the company... in management'. However, 'major management decisions' were to require the approval of 'an agreed number of the parties concerned' which was to be set out in the implementing agreements. These major decisions were those concerned with the sale or disposition of assets, capital and operating expenditures, exploration and development programs, selection of key personnel and employee compensation and benefit plans.

If the corporate form was adopted, then the implementing agreement was to make provision to protect all shareholders' interests in respect of dividend and ploughbacks policy 'whatever their percentage holdings of the total shares may be.[(43)]

It is important to note that the agreement in no way altered the legal status of the existing concession holder with respect to his concession.[(44)] In fact several clauses strengthened the companies' legal position. For example, Article nine confirms that the existing concessions 'Shall remain in full force and effect in accordance with their terms'. Also, Article six requires that any change of the concession terms requires the consent of both parties.

Overall, terms which concerned matters of control and management were left deliberately vague. The reason being that it was felt more appropriate that no general rules should be laid down, but that parties should reach agreements most appropriate to the situation of the individual country.

Financial Commitment

The buy in price to be paid by the Gulf States was eventually agreed to be a compromise between the two extremes outlined earlier. Compensation was to be based on the book value of production facilities and exploration and intangible development. However, this book value was to be updated to take into account the increasing price level throughout the period in which the companies assets were acquired. This 'up dating' was to be achieved by a calculation outlined in Article four of the agreement, and the price multiplier was given in Annex 5. Unfortunately, no details have been forthcoming on exactly how this multiplier was calculated, and at least one study has claimed that the price index exaggerates the rate of inflation.(45)

The estimated cost to the host country of the initial 25% participation is given in table 6.3 below.

Table 6.3 The Cost of The Acquisition of the First 25% of Participation

Countries	(1) Total ($m)	(2) Per barrel of productive capacity ($)(46)
Saudi Arabia	500	351
Kuwait	150	200
Abu Dhabi	162	580
Qatar	71	592

Source: MEES 20th October.

Pan Arab Consultants op.cit. p. 134-135.

This compensation can be paid in a lump sum, or in three annual installments, 30% immediately, and 35% in each of the two successive years. The outstanding sums would carry a rate of interest equal to the rate at which US dollar deposits for six months are offered in the interbank deposit market in London, plus 1%.

In addition to compensation, the Gulf States are also committed to bear their share of the costs associated with the production and delivery of crude oil in respect of each concession. These costs include capital requirements, including advances for working funds, based on the percentage interest of the Gulf State in the concession. Also included are all other costs including depreciation and overheads but these costs are to be based on the Gulf States share of total lifting. This share includes bridging, phase in and forward avails crude and any quantities for which the overlift price is paid.(47)

Offtake arrangements

The arrangements for offtake embodied in the agreement go to some lengths to allow for a transition period. Two categories of crude are identified, 'bridging crude' and 'phase in crude'. 'Bridging crude' is crude to which the host country is entitled, as part of its 25% share of offtake, but which the companies have need to fulfill their existing market commitments. In the first year in which the agreement operates, up to 75% of the host countries' 25% share of offtake is to be sold to the companies as bridging crude, if the companies require it. In the second year up to half of the governments' share was to go to the companies as bridging crude, and in the third year 25%. By the fourth year it is assumed that the companies should be able to meet their market commitments from their own share of offtake.

'Phase in 'crude is crude to which the host country is entitled from its share of offtake, but which the host country may

have difficulty in disposing of until their marketing network has developed. This 'Phase in' crude was to be bought by the companies. Up to 15% of the governments' entitlements in the first year could be sold to the companies as 'phase in 'crude, 30% in the second year, 50% in the third year and 70% in the fourth year. After the fourth year, the percentage of the 'phase in' crude was to be reduced reaching only 10% of government entitlement by the tenth year. The governments were obliged to give the companies four years advance notice of the amounts of 'phase in crude' which they wished the companies to take.

Ownership and disposition of the government's 25% share of offtake are given in table 6.4 below. Despite these transition arrangements, this still left the host countries with a considerable quantity of crude oil for which they would be responsible. Assuming that Aramco's output in 1973 would be some 7 million b.d. then the Saudi government would have to sell some 175,000 b.d. on its own account (i.e. 10% of 25%). If it is further assumed that production were to increase at 20% per annum,[48] by 1976, Petromin would have to dispose of nearly 1 million b.d.

In addition to the arrangements for the transition period, the agreement also outline the mechanism for the disposal of non transition offtake (i.e. crude oil other than bridging or phase in crude). Each party has a 'basic right' to a share of the offtake. This share is determined by the respective levels of participation of both parties, thus if all participation options are taken up, by 1st January 1982, the host country's 'basic right' would be 51% of offtake.

Table 6.4 Disposition of host countries entitlement of crude oil production - %

	Bridging	Phase in	Government Disposition
1973	75	15	10
1974	50	30	20
1975	25	50	25
1976	-	70	30

Source: Data given in pages 169-70

Each year, both parties 'table' (i.e. make known)the offtake requirements for three years ahead. Planned capacity is then set at a level, if possible to meet these total tabled requirements. If the total tabled requirements exceed capacity, then the production level is set at the maximum technically possible, and the tabled requirements of each party are reduced. Cuts are imposed initially on the party which has tabled a requirement above its 'basic right.'

In this situation, within planned capacity, it is perfectly in order to have an overlifter (i.e. the party takes more than its basic right) as long as there is an underlifter (i.e. a party which takes less than its basic right). If either party wants to expand future capacity, and the other party does not, this can be allowed for by a system of 'forward avails 'which is outlined in Annex 3 section D. This simply means that capacity is expanded to meet the requirements, and the party wishing the extra oil takes it, paying a special 'forward avails' price.

The distinction between overlifting and forward avails is somewhat obscure and complex in the agreement, and the present renegotiations of the agreement will almost certainly simplify the procedure.

Price Levels

There were four prices to be determined, each price related to the type of crude lifted i.e. Bridging, Phase in, Forward avails, Overlift. Each of these prices was to be the subject of separate negotiations as part of the negotiations of the implementing agreements. However, it appears(49) that the intentions of the negotiators were that bridging crude was to be priced at approximately realized market levels, while phase in was to be priced a little below realized market levels. For the overlift price, and the forward avails price (called in the agreement contract price), the general pinciples for their calculation were given in Annex 3 Sections G+H of the agreement.

By January 1973, the bridging andphase in prices were agreed upon between the individual parties and the details are given in Table 6.5. below.

Table 6.5 Bridging and Phase-in price, January 1973 ($ p.b.)

Crude	API	Bridging	Phase - in
Arabian Light	34	2.053	1.970
Arabian Medium	31	1.926	1.844
Arabian Heavy	27	1.807	1.677
Kuwait	31	1.940	1.872
Qatar Marine	36	2.106	2.017
Qatar	40	2.163	2.086
AbuDhabi Number	39	2.241	2.197

Source: PIW Vol. XII No. 36 September 3, 1973.

It should be noted that Kuwait got slightly higher buy back prices in return for a guarantee that the majority of the 25% of Kuwait's share would be turned back for marketing through the existing companies channels, for the three years which followed the agreement.[50] The significance of this was that it helped solve a considerable problem for BP and Gulf who could not increase their production because of the 3 million b.d. production ceiling imposed by the Kuwaiti government.

Conclusion

Overall, the agreement was extremely complex and rigid, at a time when changes in the industry were accelerating. The rigidity applied especially to the provisions for the various prices. To a great extent these inflexibilities contributed to the rapid collapse of the agreement, which can now be examined.

After the General Agreement

Reaction to the announcement of the agreement was mixed. While some criticism grew,[51] the negotiators strongly defend both the agreement and the idea of 'participation'. Yamani continued to compare 'participation' with nationalization, and to emphasize the dangers of the latter. For example,[52] he argued that an excellent example of the problems he had previously outlined was Iraqi experience with Kirkuk, where from a potential production of 12 million b.d. Iraq had been able to market only a third. He also continued to emphasize the eventual importance of downstream participation in order to 'help the oil industry remain on a sound footing and maintain the present structure.'[53]

In similar vein the Kuwait Oil Minister A.R. Atiqi also defended the general agreement,[54] stressing the benefits of 'control' and maintaining that the 'basic objective of participation is not a financial one.'[55]

Yet, despite these and similar statements, dissatisfaction with the agreement was growing, and was also being expressed by the actual negotiators. The cracks in the previously expressed solidarity began to appear, first in Kuwait, under pressure from elements in the National Assembly. In June 1973, Kuwait formerly indicated that the General Agreement was not satisfactory and wanted a revision of the terms.[56] In December of 1973, Saudi Arabia followed suit, and Yamani stated that Saudi Arabia also wanted a revision of the terms, emphasizing in particular that Saudi Arabia wanted more than the originally agreed 51%, and wanted it before 1982. By the end of 1973, less than one year after signature, the General Agreement which had presaged so much was in pieces, and the whole concept of 'participation' was being drowned in rumours of pending nationalization.[57] This rapid and drastic reversal requires an explanation. Four reasons can be identified; the strengthening of the price structure, the 'success' of some countries in nationalizing their oil industry, the operation of the 'Law' of increasing terms, and the 1973 October war.

The upward trend in prices, begun in 1970, continued and accelerated. Towards the end of 1972 there was a sharp tightening of crude supplies as there was a long in the development of new capacity in the Middle East and as planned increases elsewhere failed to appear.[58] In addition, European demand began to recover from an earlier slump and U.S. imports of oil also increased. Demand in W. Europe was 8% above the same period in 1971, while U.S. imports were 30% above the 1971 period.[59]

The first implication of these increasing price levels was that the prices for bridging and phase in crude oil agreed in January 1973,[60] had been left behind by increases in other oil prices. In May 1973 it was announced that Saudi Arabia had been able to sell all its participation crude for 1973 at a price an average 50¢ p.b. above the agreed bridging price.[61] In August 1973, M. Joukhdar, a former Deputy Governor of Petromin, claimed[62] that the buy back prices negotiated in January where now entirely out of line with the market, and cited the example of Arabian Light crude whose market price was 50¢ p.b. above the bridging price and 63¢ p.b. above the phase in price.

In August 1973, the buy back prices were renegotiated to a higher level as given in table 6.6 below. These increases simply reflected the general upward trend in both posted and realized prices.[63] However, as prices continued their upward spiral, it was certain that before long, these newly negotiated buy back prices would also find themselves out of line with the market.[64]

In addition to outdating the buy back prices, the general increases further weakened the fears of the arms length market. The prime raison d'être for 'participation' was rapidly being undermined.

While this fear was receding, the fear that any nationalization attempt would be severely curtailed by opposition from the majors also declined. 1972-1973 saw a series of nationalization by Algeria, Iraq and Libya. Algeria began the process in early 1971, and was followed by Iraq who finally nationalized the IPC in August 1972.

Table 6.6 Revised prices for bridging and phase in crude negotiated in August 1973 ($ p.b.)

	APL	Bridging January 1973	Bridging August 1973	Bridging Increase	Phase-in January 1973	Phase-in August 1973	Phase-in Increase
Arabian Light	34	2.053	2.388	0.335	1.970	2.259	0.289
Arabian Med.	31	1.926	2.246	0.320	1.844	2.119	0.275
Arabian Heavy	27	1.807	2.109	0.302	1.667	1.937	0.260
Kuwait	31	1.940	2.259	0.319	1.872	2.147	0.275
Qatar Marine	36	2.106	2.444	0.338	2.017	3.308	0.291
Qatar	40	2.163	2.512	0.349	2.086	2.386	0.300
Abu Dhabi	39	2.241	2.583	0.342	2.197	2.491	0.294

Source: PIW Vol. XII No. 36 (September 3, 1973)

Libya also began piecemeal nationalization of the foreign companies. In the case of both Algeria and Iraq, settlements with the foreign companies have been reached on very favourable terms to the host countries.(65) Even in the case of Libya where settlement has not yet been reached in all cases, the Libyans claim to have been able to sell their crude with the minimum of hindrance.

It appeared by 1973 that the two great fears of nationalization, prices and company reaction had receded.

The increasing prices coupled with the relatively successful nationalization both undermined the concept of 'participation.' The General Agreement itself was further undermined as a result of the 'law' of increasing terms, with Libya acting as the main sources of pressure. Libya had also been seeking 'participation' in its operating

companies, with the following objectives.(66) Firstly, to promote the expansion of exploration operations on the grounds that the companies were content to deplete resources. Secondly, to have 'a say' in the decision making of the operating companies, both at a technical and managerial level. Finally, to secure access to quantities of the crude oil produced. However, Libyan 'participation' was to differ from the Gulf 'participation' in two ways. Libya insisted that compensation should be based upon net book value, and also demanded immediate access to crude oil supplies on a considerable scale.

In August 1973,(67) a 'participation' agreement was announced with Occidental, followed by a similar agreement with the Oasis Group.(68) Libya was to obtain an immediate 51% participation in the upstream operations of the companies in return for compensation based upon the net book value of the above the ground assets.(69) Also, the buy back prices were extremely high.(70) Around the same time, Iran announced that it would compensate the consortium forthe Iranian takeover of the Abadan refinery also on the basis of the net book value.(71)

These developments made the terms of the Gulf General Agreement appear very unfavourable, and provided ammunition for those against both the General Agreement, and 'participation' in general, to apply pressure for a change.

The disatisfaction with 'participation' as a strategy i.e. apart from the disatisfaction with the agreement terms, reached a peak with the outbreak of hostilities between the Arabs and Israeli

in October 1973. The war had two major effects. Firstly, because of the Arab oil weapon oil supplies became very short. Shortly after the outbreak of hostilities, the Arab oil producers announced that they would cut back production by 5% per month with September 1973 as a base. This would continue until Israel withdrew from occupied territory and the rights of the Palestinians were restored.(72) In the first month the actual cutback averaged 20%.(73) The consequence was an inevitable spectacular increase in prices. At an auction of Iranian oil, Iranian light was selling for an unheard of $17.04 per barrel.(74)

In addition to the price effects, the October war generated a very strong demand for nationalization, especially of American and Dutch interests. Iraq in fact took this course of action. All these factors make the future outlook for 'participation' in the sense outlined by Yamani after 1967 bleak to say the least.

'Participation' and Joint Ventures Compared

In order to be able to use the information gathered on joint ventures to assist in an analysis of the 'participation debate' and the implication of 'participation', some enumeration of the similarities and differences between joint ventures and 'participation' ventures is required.

Similarities

The similarities of the 'participation ventures' and joint ventures arises initially from the fact that both create companies with joint ownership. 'Participation' does not mean merely sharing in the profits of the venture, nor is it only a participation in

certain aspects of management. Under 'participation' the host government acquires part of the full ownership rights of the operating company. These ownership rights can take one of two forms. The undivided interest form,which corresponds closely to the operating agency form of joint venture,since the undivided interest form of operating company is a non profit making agency which draws its finance and instructions from the parents. The corporate form of operating company closely resembles the partially integrated company,which acts independently of its parents (at least in theory) as a producer and seller of crude oil for profit. The owners then receive the dividends.

In both forms of participation the role of the parent companies is the same as their corresponding roles would be in the two forms of joint venture. In the undivided interest/operating agency they are directly responsible for providing the financial inputs, taking their share of the oil offtake, and for the planning of future offtake, capacity etc. In the corporate/partially integrated venture the parents role is less direct and clearcut, but is carried out by means of its appointees on the board.[75]

The question then arises, if both participation and joint ventures have the common characteristic of joint ownership, does the diffefence in 'participation' share (i.e. 25-51% in nine year) from joint venture share (normally 50% immediately) affect this similarity? In principle, the answer must be that it does not. In both cases ownership rights and responsibilities are divided. If the division is different, the relative sizes of input and off-take/dividends share differs, but the basic principle of a share in

the ownership rights remains unchanged. Where the differences in percentage division may make for an important difference between participation and joint ventures, is in the use to which the share in ownership rights is put i.e. in the matter of joint control.

Joint control also provides, in principle, strong similarities between the two types of venture. In both cases the parties to the venture have a potential share in the decisions which affect the operating company. These decisions range from the size and disposition of offtake, now and in the future, to the nature of the financial policy to be pursued. Also, in both cases, the parties to the agreement have the right to appoint the senior staff who make these decisions, directly or indirectly; directly in the case of the corporate/partially integrated venture, indirectly in the undivided interest/operating agency type of venture.

In the case of joint control, the differences in the division of equity alone between participation and joint venture may make for differences, but this is not necessarily the case. De facto control may indeed stem from a de jure control through ownership of the majority of the equity, but there are other sources of de facto control. These other factors can arise from knowledge of technology, experience in certain aspects of the operations, and supply of a key element in the operation such as foreign exchange.[76] While the General Agreement specifies the division of equity shares, there is no statement as to how far these equity shares will reflect voting rights. It may well emerge that a power of veto is given to the minority shareholder, as is the case in all joint ventures which do not have an even division of equity.[77]

Thus the similarities between participation ventures and joint ventures arise from the existence in both cases of actual joint ownership and actual or potential joint control.

Differences

Despite the similarities between participation ventures and joint ventures, there are also important differences. These differences arise from two broad characteristics of the participation ventures. Firstly, there is the fact that the host country in a participation venture enters an operating company which has been in existence for some time. In joint ventures, the host country joins the foreign company and forms a new company. Secondly, the scale of operations of the participation venture is mostly larger than the scale of any joint venture at present in existence.

The fact that in participation the host country enters an existing operations creates several points of difference from the joint venture.

The host governments are entering partnerships with the oil companies, who for a long time have been regarded by much of public opinion in the Middle East as examples of Western Imperialism. Even amongst some host government policy makers the majors have been, and are, regarded either with mistrust or bitterness or both. The literature on the industry from the Arab side is littered with ephithets such as 'monopolists', 'exploiters' etc. To cite just one extreme example, in a pamphlet put out by INOC on 'Direct and National Exploitation of Iraqi Crude Oil', in April 1972, the purpose of Law 80 of 1961 was given as 'the liberation of national resources from malicious exploitation practiced by monopoly companies' (Sic).

Such a view of one's future partner is hardly likely to help in the generation of a condition of mutual trust.[78] Indeed, it was this lack of a past history which made so many of the independents attractive to the host governments which entered joint ventures.[79]

In addition, because the host country buys into an existing operation, a price of entry has to be negotiated. This price has two extremes.[80] If the host country can obtain participation without payment then all profits above its pre-participation revenues are net gains (and net losses to the companies). If its entry price equalled the present value of the future stream of profits then it would gain nothing (and the companies would lose nothing), assuming the present value calculation to be correct. Thus for the host country to gain from entry, the entry price would have to be such that the expected rate of return after taxes on the investment (i.e. entry price) exceeded the rate of return that could be expected from alternative uses of the capital before tax. From the companies point of view the compensation it receives should be a sum which when invested would yield a return, at least equal to the expected income from the operations.

This situation reflects a classic bargaining situation insofar as the two extremes of a zero sum problem can be identified leaving its solution (i.e. the actual price within the two outer limits) to the outcome of negotiations. For the reasons discussed earlier in the chapter on bargaining and conflict, the eventually agreed price may become outdated, i.e. what may seem a satisfactory agreement to one side at one point in time, may, with a change in circumstances,

seem less satisfactory at another point in time. For this reason, any negotiated entry price may be a later source of conflict. The agreed updated book value compensation negotiated in the general agreement has already proved to be a source of such a conflict.(81) In the case of joint ventures, since there is no entry price because the ventures are newly created, such a potential source of conflict does not exist. The 'price' of entry into a joint venture is the share of exploration and development costs commensurate with the reward i.e. share of offtake. As a result both parties to the agreement pay proportionately the same entry 'price' dependent on the division of the equity. A possible exception to this would be the signature bonus paid by the foreign company but in most cases this is recoverable.

The final implication of the entry of a host government into an already operating company lies in the existing market committments of the foreign owner. A major reason for host governments entry into the company is to secure oil supplies; yet, it is possible that the existing offtake is already needed by the original owners to fulfill its marketing obligations and needs. This has two implications. Firstly, there has to be some arrangements made for the transition period; secondly, a price has to be negotiated between the new owner of the crude i.e. the host government, and the user of the crude, the foreign companies. Since these arrangements, like the buy in price, are the subject of a negotiation, it is possible for them to become outdated as in fact has occurred for example with the prices of bridging and phase-in crude.(82) These prices were agreed upon in January 1973 and were badly out of date by August 1973.

These additional sources of conflict are not present in the joint venture situation because the possession of the crude is clear cut and no similar transition period is required.

That the scales of operation of the participation venture and joint venture are different needs little elaboration. In 1971, the two biggest joint ventures, GUPCO and LAPCO, lifted 100 million and 49 million barrels respectively. In the same year Aramco and KOC lifted 1,635 million and 1,078 million barrels respectively. However, in addition to the difference in absolute size of the operating companies, there is also a considerable difference in the size of foreign parent companies. Most of the foreign companies involved in operating joint ventures are 'independents', while all the foreign companies in the proposed participation ventures are majors. Some idea of the difference in scale is given in Table 6.7 below.

Table 6.7 Relative Sizes of Offtake of Crude Oil and Liquid Gas, and Owned Refining Capacity of Selected Companies 1971 (b.d.)

	Independents		Majors
	Phillips	Standard of Indiana	Average Figures for the Seven Majors
Offtake	356,000	769,000	3,940,000
Refining	605,000	990,000	3,160,000

Source: Relevant Company Reports 1971.

General differences between the participation ventures and joint ventures arise because of these differencesof scale.

The logistics problem faced by a foreign company outlined earlier increases both with the scale of the operation, and the size of the company involved. For example, in the Middle East and Africa in 1971, BP drew its crude from nine different companies in seven countries. Its smallest interest (Qatar Petroleum) lifted 204,000 b.d. of which BP owned 24% while its largest (Iranian Consortium) lifted 4,080,000 b.d. of which BP owned 40%.[83] In a similar way, the importance of the oil sector to the host countries increases with the scale of the operation, as it represents an increasingly important element of the national income. For the companies, an increase in the size of the operation implies a greater problem for a company trying to balance its diverse interests between different sources of supply. This suggests that the companies will be less able to relinquish control over these different supply sources than is the case with the smaller companies. For the host country, there is likely to be a strong direct relationship between the size of the oil sector and the importance of control of the oil sector. The bigger the operation, the more likely it is that both parties will seek to exercise control.[84]

The size and quality of the staff input also differs between the two types of venture because of the scale difference. It is a reasonable assumption, other things being equal that there is a direct relationship between the size of the operation and the number and quality of the senior staff required i.e. the bigger the operation the 'better' the senior management will need to be and the more will be needed.[85] This means that if the host country is going to seek control of the operating company by means of its appointees, then the host country most provide more staff, of a higher quality,

for a participation venture, than would be the case with a joint venture. As will be seen shortly, this situation carries very serious implications for participation on the Arabian Peninsula.

Because the scale of the participation ventures is so much bigger than the joint venture, the host country problem of the disposition of its share of crude offtake is correspondingly larger. In 1971, from GUPCO Egypt had to find markets for 50 million barrels of crude. In the first year of participation Saudi Arabia would have to market 64 million barrels, rising to 330 million barrels within three years. After this 'transition period' the rate of increase would accelerate considerably. Since the host countries possess little or no downstream facilities, the bulk of this crude oil would find its way into the arms length market. As will be seen shortly, this factor provided a major source of the debate on the viability of participation ventures, because of its implications for world oil markets.

The final differences between the two types of venture which arises from the scale of the operation, concerns the size of the host country's financial input. The participation venture requires the host country to commit far more of its financial resources to the venture than would be the case for a joint venture. The financial input is required for three elements; the buy in price, further investment in operating costs, capacity etc. and finally investment in downstream facilities. In joint ventures only investment in upstream operations is needed.(86) Also in joint ventures because of the smaller absolute size of the operation, the size of the host country financial input is correspondingly smaller.

These factors provide an outline of the major differences between the two types of venture. Their impact and significance will be detailed when the participation debate is examined, since many of these differences provided ammunition for the debates.

By way of a conclusion on the similarities and differences I would suggest the following. In principle, the two ventures once operating, are very similar, but in practice the outcome may be quite different. In some cases the joint venture experience will be relevant to the participation debate, in others the practical differences (notably scale) will make joint venture experience irrelevant.

The effects and implications of 'participation'

As the idea of 'participation' began to unfold after 1967, the possible significance of its application was a source of considerable discussion in oil and academic circles. The purpose of this final section is to evaluate the more important aspects of this debate, in the light of both joint venture experience, and the present situation in the oil industry, as distinct from the situation when the discussion was at its peak 1968-1972.

The effects and implications of 'participation' can be grouped under three main headings. Firstly, the major operating companies in the area were to have the host government as a partner in the equity joint venture.(87) Secondly, the host governments were committed to the provision of considerable resources as inputs to the companies. Finally, the host governments were to become the owners of considerable quantities of crude oil, and as owners, were to be responsible for its disposal.

Before an examination of these effects two problems should be noticed and borne in mind throughout the subsequent analysis. The first problem is the use of the conditions in the industry at present, as part of the analysis. Since the October war of 1973 between the Arabs and Israelis, the 'present situation' is as clear as mud. The rate of change of circumstances has been so rapid as to make the identification of trends a hazardous exercise. The second problem is the limitations on the use of joint venture experience in relation to the participation ventures. The differences between the two types of venture have already been outlined. There is in addition the more general difficulties of the transfer of the experience of one country to another.

Despite all this the exercise is still worth doing, if only to illustrate the type of questions which need to be asked. Better answers to these questions may come at a greater distance in time when the dust has settled.

Host Governments as partners in the major operating companies

Since the major operating companies were joint ventures before the advent of participation, what are the difficulties of having the host government as one more partner? In the debate, the significance of the host government as a partner was thought to lay in the fact that the host governments' interests would be likely to conflict with those of the existing partners. These sources of conflict were thought likely to arise from two characteristics of the host governments; their political nature and their non integrated nature.

The fact that the host governments would be non-integrated partners to the joint venture, was thought to have considerable implications for the factors which would determine the offtake of the venture. The most succinct analysis behind this idea was given by Professor Penrose in 1968.[88] The initial assumption is that the host countries seeks to maximize revenues. An increase in revenues could come from one of three sources. The government could take its share of oil and sell it on the arms length market, at a price which would yield a profit greater than the tax revenue, after the government investment has been accounted for. Given the general situation of prices in the arms length market at this time, such a course of action was unlikely. The second method for expanding revenues would be for the companies to increase their per barrel payments to the host government. Their ability to do this depends on the state of competition in the product market. Any increase in such a payment would have to be met out of company profits, or by an increase in product prices. Since in this period company profits were declining, largely due to price competition in the product markets, such a course of action was as unlikely as the first alternative.[89] This left the final means of increasing revenue, which would be for the host government, as partners in the operating company, to push the company to increase offtake at existing tax rates. The implications which would arise from this, derive from the fact that supply of crude oil would increase, with no reference to the level of demand for crude oil. For crude deficit companies, these increased supplies would be welcomed up to the point where all their needs for owned crude were satisfied. However, for balanced or surplus crude companies, pressure to increase offtake would be pressures to increase market sales, either of crude oil or products.

Professor Penrose points out that because the oil companies take their supplies from a number of different sources, many of which could produce more oil at existing prices, they have had to operate a kind of prorationing. 'The reconciliation of numerous conflicting interests-including the desire of the producing countries for increased output and the differing requirements of the individual companies-while at the same time attempting to keep the rate of aggregate supply in line with the rate of aggregate demand, has for a long time posed difficult and delicate problems for the international companies as a group.'[(90)] If the host governments become partners with full ownership rights, and proceed to demand and obtain increased offtake, this would make the 'difficult and delicate problems' almost insoluble for the companies. This would be likely to lead to an erosion of the companies' profitability.[(91)]

Given the present situation, and joint venture experience, what is the validity of the above analysis? Unfortunately, joint venture experience is of limited assistance. In Egypt, the host government initially wanted crude for its own integrated operations, and thus planned offtake on the same basis, as an integrated company i.e. in relation to product demand. When offtake reached a level which satisfied Egypt's internal demand, the foreign companies were all considerable crude deficit companies and welcomed any increase in offtake. In any case production was small enough for Egypt to market her share with little difficulty.[(92)] Iran approximated most closely to the situation envisaged above, i.e. non-integrated partner pressing for increased offtake. But in this case, a combination of low venture production and crude deficit foreign partners eliminated any conflict of interest. The foreign companies were more than willing to maximize production and to overlift.

As to the present situation, there has been an important change of circumstances. After 1970, the host countries have been able to secure increased per barrel revenue as a result of rising product prices, and the exercise of collective bargaining power.[93] Thus the host country has been able to increase revenue without an increase in offtake. Indeed, in at least two cases, Libya and Kuwait, the host governments have placed production ceilings on offtake for conservation purposes.[94] Furthermore, they were able to do this without participation, but as sovereign governments. At first sight this new situation would appear to render Professor Penrose's analysis obsolete in the face of changing circumstances i.e. the host government is no longer likely to seek an increase in offtake which may damage the position of the companies. However, this would be a short sighted view. The fact remains that while the host governments remain non-integrated, they regard crude oil as a source of income in a way which has a completely different basis from that of the foreign company. Thus for the host country crude oil is a direct source of revenue, while for the company, crude oil is a source of products.[95] On these grounds the potential conflict of interest between the partners remains, although its exact nature may have altered i.e. instead of increasing offtake some host governments have reduced offtake; both create difficulties for the companies. This will be returned to when the implications of the host government as a crude seller are sought, for the moment it is sufficient to assume that the conflict remains, and therefore requires a solution.

The second source of conflict thought to be important in the participation debate, was the political nature of the host government. The companies fears were that the host governments would introduce political considerations into purely business operations, with a resulting decline in efficiency. Such 'interference' could take one of two forms. Firstly, the government may seek to use the operating company as a means of gaining ground over its political opponents within the country. Secondly, the government may feel forced to 'interfere' in the operations of the company because the government has been put under pressure by the 'Law' of increasing terms. Thus the government may seek to alter the companies' frame of reference or in some other way effect the companies' operations.(96) However, the point to note about these fears on the part of the companies is that ''interference' is not exclusive to participation. As sovereign governments, the host country governments are able to 'interfere' in this way, participation or no. Indeed for reasons which will be mentioned shortly, 'participation' may in fact lessen the likelihood of such interference.

There is however one very good reason why the host government, as a partner, may generate conflict within the venture, in a way which a private sector partner would not. Some mention has already been made of the foreign companies' logistics problem of balancing conflicting sources of crude etc. In the same way, governments have a similar logistics problem, both between different sectors in the economy and different criteria and objectives. In other words, a host government partner may require the venture to take a course of action against the interests of the venture, but in the general interests of the country.

Three possible sources of such a divergence of interest can be categorized. Firstly, the interests of the venture may have to be sacrificed for the benefit of a more strategic sector of the economy. Thus, in the case of the Egyptian ventures, the Government insisted on the use of Russian drilling equipment, only because they represented less of a strain on the balance of payments than other nationalities' equipment, since the equipment had been received as part of a barter agreement. In this case, no problem of efficiency resulted,(97) but the point remains that the action was taken for the benefit of a sector other than the oil sector. A similar example is the local purchasing clauses in most joint venture agreements, which may provide demand for other sectors of the economy, at the expense of equipping the oil venture with poor equipment.

A second source of potential conflict is in the criterion used in taking decisions. The venture companies' objective can be said to involve some criteria, based on profit maximization over same period of time, or maximizing growth, or offtake. The point being that the objective is essentially based on self interest criteria. The responsibility of government however, is to consider alternative criteria in addition to the self-interest criteria of one firm or sector. A good example of such a situation was the Egyptian government's decision to force the oil marketing companies to sell products at the same price in lower as in upper Egypt.(98)

The final source of potential conflict from a government partner arises from different time horizons. It is a reasonable assumption that, given political stability, the foreign company will seek to maximize the return on its investment[99] within the lifetime of the agreement. If there is political instability, then the time horizon of the company will be correspondingly shorter. For the host government however, there are two alternatives. If the country has a high turnover in governments then the time horizon may be very short indeed. If a president is 'elected' for five years then the present value of the income of the sixth year is likely to be nil. Alternatively, a government may expect a long and happy life and therefore extend its time horizons accordingly.

The most obvious source of conflict to arise from such a situation is with respect to revenues. Thus a government with at present more income than expenditure, may wish for a much slower rate of resource exploitation than the foreign company. The implications of this will be examined further when the host country as a crude seller is considered. There are a number of other ways in which different time horizons can cause conflict. A company may be quite content to flare the gas produced from oil operations while it is not profitable to use it in an alternative way i.e. marketing or reinjection. The host government however, may insist on its conservation for future use at a present cost to the venture. While the country is likely to eventually gain from such an action, the foreign company is likely to lose. The cost of reinjection can be regarded as an investment on which the foreign company is not likely to see any return.

At first sight, the experience of joint ventures in the matter of host government partnership is encouraging for the participation venture. In the case of Egypt, after the experience with COPE, the ventures were deliberately insulated from the public sector, and 'political interference' was minimal.[100] However, the problem is the extent to which Egyptian experience can be transferred to other countries. To an extent the likelihood of such a transfer will depend on the political stability of the regime. If the regime is secure, then it will have less need to 'score' over political opponents and will be more able to resist pressure which may arise from outside through the mechanism of the 'law' of increasing terms.

Egyptian experience also provides several reasons why 'political interference' may in fact be less under 'participation' than under an 'old style' concession. As a part owner of the company, the government should have access to more information about the operating company. With more information the government will be in a much better position to evaluate the economic costs or benefits of any political action taken. Egyptian experience also suggests that the Egyptian representatives appointed to the ventures, themselves act as an insulating layer between venture and government. For example, it was the Egyptian technocrats who dissuaded the government from making any change in the terms of the EGPC-Pan-Am 1964 agreement on the creation of GUPCO.[101]

Finally, once the government becomes a partner, the venture company can be projected to the public as a national company. As such, it ceases to be regarded as a foreign element in the economy

to some extent, and so loses value as a whipping boy for political purposes. An example of this was during and after the October 1973 war when, to the best of the authors knowledge, Egypt continued to supply oil to the two American Oil Companies.

However, while this invalidates much of the concern over the political nature of a host government partner, the potential conflicts which arise from the government's wider responsibilities to other sectors and objectives remain.

In addition to the sources of conflict anticipated in the 'participation debate', i.e. offtake and political interference, joint venture experience suggests the existence of other potential sources of conflict, notably in the matter of the venture's financial policy. Given that these different forms of conflict may exist, how far does joint venture experience indicate the probability of a satisfactory solution?

Where the two partners have a common aim, then disputes over the means to the achievement of this common aim can generally be solved by compromise. This emerges quite clearly from the experiences of the operating agencies in Egypt. Equally clearly is the fact that if the partners begin with essentially different aims, as in the case of COPE, solution to a conflict is far less likely, partly because the conflict is as likely to be over basic objectives as it is to be concerned with means to objectives. The result, as can be seen from COPE's experience, is a creeping paralysis over the company's operations. Relatively minor issue become pawns in the wider dispute, compromises take on the form of defeats or victories. Since many of the conflicts discussed in the context of 'participation'

ventures arise from essentially different objectives, notably over offtake. This would suggest that solutions to the conflicts are unlikely to take the form of a compromise. In this situation, both parties to the venture, to protect their basic interests, must seek de facto control of the venture. The solution to conflict is then imposed by one party on the other.

The fact that the most obvious way to seek a de facto control of the venture lies in the staffing policy of the venture,[102] has very serious implications for 'participation ventures' on the Arabian Peninsula.

The staffing policy of the venture can achieve this [illegible], by one of the partners filling all or most of the senior management positions with its own appointees. In this way the decision takers within the venture will take their decisions in favour of their parent,[103] and the parent will also be in a position to secure more information. In addition, since most of the senior managers will come from one parent, problems of dualism are reduced accordingly.[104]

At this point it is central to the understanding of the implications of this 'packing' of the management structure, to distinguish between technicians and managers. The distinction which matters here is the 'training' period. Good technicians can be produced in 6-7 years, with allowance for a course of study and a period of experience.[105] Since good managers are generally good technicians with considerable managerial experience, the time taken to produce a good manager can be at least doubled. On the Arabian Peninsula, good managers are a very very scarce resource.

This is even more true when it is remembered that because of the scale of participation ventures, a large number of good quality senior managers are required. The fact of the matter is, that the countries of the Peninsula simply do not have sufficient quality managers with which to pack the venture's management structure, nor are they likely to have them within the next ten years at least.(106)

This presents the host countries with an insoluble dilemma. If they seek to secure their objectives vis a vis the participation ventures by packing the senior levels of the management structure with their own appointees, too many inexperienced managers will be promoted too soon. Such a situation is likely to mean incompetent managers at a very high level in the venture with corresponding implications for efficiency. The alternative is to introduce their appointees to the venture gradually, as and when their experience fits them for the posts, thereby minimizing the dangers of inefficiency. However, two consequences follow from this. While the transition is taking place i.e. expatriate nominees of the foreign company are replaced by host country nominees, the venture may suffer from dualism, with adverse effects on efficiency. Also, the host country risks the foreign companies securing de facto control through their 'packing' of the management structure. This in turn implies that host country interests may suffer accordingly.(107) It would appear to present a situation in which the host country may lose, irrespective of the course of action chosen.

In the case of the joint ventures, such problems did not occur. In Egypt, since the partner's basic objectives coincided, de facto control was much less important. Also, Egypt had a surplus

of good quality managers, and so was able to effectively 'pack' the management structure. In Iran, the Iranians were content to let the foreign partners provide the management, partly because objectives often coincided, and partly because the joint ventures were marginal to the whole oil sector.

By way of conclusion, it would appear that the conversion of the major operating companies to joint ventures with a host government partner, does not have a very promising future. To some extent this appears to have been realized by the host governments in the newly negotiated participation agreement.(108) This gives the host country 60% of the equity immediately, and full ownership in less than six years. 'Participation' would appear to have lost the battle with nationalization.

Host Country Resource Commitment

This aspect of the participation debate revolved around the nationality and advisability of the host countries' demand for a share in the operating companies. This demand would commit them to resource inputs on a very large scale, in an activity which someone else i.e. the foreign companies, were very willing to carry out on their behalf.

The argument that, because the host countries sought control at a possible economic cost they were being irrational, can be rapidly dealt with. Such an accusation could only be acceptable if it is assumed that the only rational motivation is profit maximization. The economists' 'rational economic man' of the nineteenth century who was burdened with such an assumption, died long ago from an acute attack of revealed preference. If the host countries reveal a

preference to share control of oil operations, even at a financial cost, that is their perogative.

As to the advisability of such a course of action, one needs some criteria by which to judge the likely result of a share in control with the objectives sought by the host country. If the objective in seeking control is to satisfy notions of national dignity, independence etc. the criteria are difficult. But it is possible to conceive of a trade off table between 'dignity units' and financial cost, though the practical difficulties in the computation of such a table are formidable.

If the objective is to seek greater financial benefit, then the criteria are more manageable. It is then a question of comparing the revenues, less cost, from participation, with the possible tax revenues if the old style concession continues.(109) Also the rate of return on the input to 'participation', must be compared to the possible rate of return from alternative uses for the participation inputs. Such calculations however, are complicated by several intangible elements which may be difficult to translate into accounting concepts. By 'participation' the host country managers should gain valuable experience through a 'learning by doing' process. However, implicit in such a process is an initial cost which may have to be borne in order to receive future benefits. In addition, a financial 'loss' by 'participation' in oil may be offset by the host country using its power of control to integrate oil operations more into the domestic economy. For example by insistence on more local purchases, other sectors of the economy may benefit.

A further general objective of the host country may be the diversification of the economy away from such a heavy dependence on oil. The criteria to be applied in this case would be to evaluate whether, by the input of resources into oil, the development of other sectors of the economy may suffer from a shortage of these inputs. For the Arabian Peninsula the key resource is management. Given the heavy management input required by 'participation', it is likely that other sectors will be starved of managerial input with corresponding harmful effects on the diversification effort.

Unfortunately, the whole exercise is further complicated by another factor. It is unusual for a government to have one clear cut objective. Normally a government has numerous objectives, and the ranking in importance of these objectives may well change over relatively short periods of time. This makes any accurate evaluation on advisability almost impossible unless the government unequivically states its objectives.

Joint venture experience adds very little illumination to the problem. In the two countries to operate joint ventures, Egypt and Iran, resource committment in the ventures was relatively minor compared to the inputs into participation. Also it is possible that foreign company willingness to carry out operations on behalf of the host government, especially in Egypt, may have been somewhat lukewarm. However, one benefit which clearly emerges from host government participation in joint ventures is the benefits to management from 'learning by doing'. In the long term such a benefit may well outweigh initial financial losses.

The Host Country as a Crude Oil Seller

Much of the discussions on the effects of participation centered upon the fact that as a result of host country participation, the host countries would become sellers of considerable quantities of crude oil.[110] This was felt to have important implications for the world oil markets.

Before 1970, the analysis was based on the assumption of a potential surplus of crude oil over demand at existing prices, together with an increase in competition in both the crude oil and product markets. Given this situation, it was thought that posted prices were unlikely to rise. In fact it was only as a result of the pressure from OPEC that posted prices had not been reduced since 1961. On the other hand, since early 1960, European product prices had been declining under pressure from the growth of the small independents.[111] The implications of this situation were, that if the host country sought to increase its per barrel revenue by increased posted prices, the increase would have to be met out of company profits, which were already declining as a result of price competition for products.

Since the companies were liable to strongly resist any such move, the alternative course of action, forthe host country to increase revenue, would be to push for an increase in offtake. Throughout the sixties, host country pressure on the operating companies to expand output was intense.[112] If the companies had agreed to expand output in all cases there would have been two results. Either the companies would have to dispose of the crude through their own integrated channels, or by selling the crude in the arms length market.

Either course of action would have meant further pressure for competitive price reductions in the product markets.

However, the companies were able to resist these pressures with reasonable success, and to keep crude offtake in line with Eastern Hemisphere demand at prevailing prices. Joint action by the companies to achieve this balance was not necessary since 'the overlapping of joint ventures permitted the limitation of Persian Gulf output,'(113) i.e. the involvement of the majors in the joint ventures gave each company a reasonable idea of what its competitor's plans were with respect to offtake.

The implication of participation was that the majors would lose this ability to limit supply in order to maintain the price structure of products and arms length crude. The host governments, who had no interest in maintaining product price structure, would push for increased offtake to increase revenue. By virtue of the control granted to the host country from participation, they would probably succeed.

The gap which existed between the market price of crude oil and the supply price arose(114) because of barriers to competition within the industry. After 1957 these barriers began to break down.(115) As a result, the gap narrowed as market prices fell. If the host countries succeeded in increasing offtake, the barriers to competition would crumble and the market price of crude would reduce accordingly. Thus ran the argument on the effects of participation.

That such a course of action seemed probable was reasonable in the period before 1970. The behavior of the host country national oil companies indicated that 'when and as—(they)... have large amounts of oil to sell there will be more competition and price

cutting.[116] The only course of action to avoid reduced prices from strong competition, would be for the host countries to prorate production, with much the same results as the limitations voluntarily imposed on themselves by the companies. Such a course of action was thought unlikely for two reasons. OPEC's efforts to introduce such a programme in 1965-66 and 1966-67 failed to achieve its objectives, and the actual output patterns diverged considerably from the planned patterns.[117] Also when the host countries sell crude oil outside the realms of posted prices and income tax, there is no way for the other members of the cartel to detect cheating.[118] Consequently the temptation to undercut rival producers is strong, especially as any price greater than cost represents profit.

These factors taken together, convinced many people that participation of the host governments would tend to flood the arms length market with crude oil, thereby drastically reducing price, as competing host countries sought to increase their oil revenues. In fact it will be recalled that much of the ideology of participation as expanded by Yamani, was based on just these assumptions, hence the need for downstream participation to tie the host country to product demand.

Unfortunately joint venture experience fails to cast any light on the subject because of the small level of output of all the joint ventures. All the joint ventures have been producing at maximum capacity due to the oil 'hunger' of all the partners. However, on the face of it the analysis outlined above appears to have provided a very logical analysis of the likely outcome of participation. But, after 1970, the context of the situation began to alter in such a way as to necessitate a complete rethink of the likely effect of the host country as a crude seller. The change in the situation and its

reasons have been outlined earlier,[119] and it is only necessary to take the conclusion as a starting point, i.e. the host countries from 1970, by a combination of limiting supply and threatening to cut off supply, succeeded in raising the posted price. This was the course of action to increase revenue which before 1970 was thought unlikely. Thus, it is no longer necessary forthe host country to expand output in order to increase revenues. The question then arises, how far does this changed situation invalidate the earlier analysis?

To answer the question it is necessary to evaluate how the host governments, with control over crude supply from participation, will act in order to obtain increased revenues.[120] The purpose of the subsequent analysis is not so much to furnish an answer to the question, but mainly to outline the factors which the host country must consider.

The host countries can pursue three courses of action which will influence the supply of crude to the arms length markets, which in turn will cause changes in price and revenue. Under participation, the host country will sell its crude oil in the arms length market, thereby increasing the supply of crude in this market. However, the crude disposed of in this way has been taken from the integrated channels of the companies who originally owned the operating companies. Thus, if the companies wish to replace this loss of owned crude, they must do so by resource to the arms length market.[121]

If the host country maintain the output of the operating company at its pre participation level, then, assuming no change in demand, the increased supply of crude oil on the arms length market

will be matched by a corresponding increase in demand from the companies (who seek to replace the loss of owned crude through participation). Thus the price of oil will remain constant at its pre participation level. Alternatively the host country could restrict output to less than the pre participation level. In this case, while supply to the arms length market would rise, demand from the companies in the arms length market would rise faster, which would lead to an increase in price. Finally, the host country could increase output beyond pre participation levels, causing the increase in supply of crude oil to the arms length market to rise faster than the increase in demand from the companies. In this case crude oil prices would fall.

What considerations will determine which course of action will be pursued by the host countries, given present conditions i.e. end of 1973? Take as a starting point the assumption that the host countries seek to increase total revenue. The first course of action, reduce offtake further to increase price, is unlikely for several reasons. Firstly, there is ample evidence that the present level of crude prices is likely to cause considerable world problems. In terms of balance of payments in January 1974 OECD estimated that to meet the increased price of oil Japan would have to spend some $15,000 million if it maintained its pre October 1973 consumption levels, France would have, as a result of the increase, a deficit of $2,500 million. The implications of this would be a drastic reduction of oil consumption by the industrialized countries with harmful consequences for growth. The effect on the developing countries is anticipated to be even more dis astrous, while there have been gloomy predictions on the effect of present prices on the whole international monetary system. In this context further price increases are unlikely.[122]

Secondly, the ability of the host countries to effectively run such a cartel is doubtful over any length of time. The greater the divergence between the supply price of crude and the market price of crude, the greater the temptation for individual countries to 'cheat' on the cartel by secret price cutting to expand offtake. It is difficult to see what mechanism OPEC could use to detect the source of such 'cheating' let alone have some control over it.

Thus to increase revenues, the host countries must seek to reduce price in order to increase offtake, thus increasing total revenue. For a reduction in price to increase total revenue, assumes elastic price demand for crude oil greater than one. There are difficulties in an assessment of the price elasticity of demand for crude oil, since the figure is 'a composite of the moderate gasoline elasticity, the very great fuel elasticity, and the intermediate one for middle distillate!'(123) Nevertheless the general consensus suggests that demand is fairly price inelastic.(124) In this case a reduction in price would reduce total revenue. However, this is the aggregate analysis. Demand for an individual country's crude oil is likely to be highly price elastic in relation to its competitors. Thus, if only one crude producing country reduced prices, its total off-take would increase and with it, total revenue. Since this would reduce demand for offtake for competing producing countries' they would be likely to meet any price reduction.

In other words, the individual country's demand curve is the classic kinked demand curve faced by the oligopolist in the case of non collusion. Thus, if the host countries sought increased revenue by increased offtake, then the analysis which was relevant

before 1970, is still relevant, i.e. Host country control of crude supplies would lead to price competition, which would radically reduce arms length crude prices. It would appear that little has changed, but this would ignore a key change since 1970.

To understand this key change, we need to go back and question the starting assumption that host countries will seek to increase immediate revenues. If it could be established that the host countries were not interested in the pursuit of this objective, then the host country could match supply with demand at existing prices, content with their existing revenue levels. Since the temptation to 'cheat' is removed, then the stability of the price levels need not be upset by supply changes designed to obtain more revenues.

This is precisely the change which has occurred since 1970. The important factor is time preferences for revenues. If the host country 'loses' potential revenue now, it is not a loss but merely a postponment, assuming for the moment that the future price of oil does not fall.[125] Projection of revenues, given the present state of uncertainty, is an extremely difficult exercise. Nevertheless, one estimated is given below in table 6.8.

Table 6.8 Projection of Government Revenues
1974 - 1983

($ million)

	1974	1977	1980	1983
Kuwait	6,207.2	7,543.0	8,526.0	9,631.0
Saudi Arabia	17,868.8	28,550.3	38,566.0	54,262.7
Abu Dhabi	3,204.6	9,131.2	12,003.4	17,389.1
Qatar	1,358.3	1,800.4	2,366.2	3,045.6
Iraq	5,373.2	10,084.6	12,972.5	16,434.9
Libya	6,703.3	8,888.6	10,015.2	11,282.9
Total	40,715.4	65,998.1	84,449.3	112,046.2

Source: Table 16 Ibrahim Saed El-Din Abdalla, Expected Oil Revenues and Surplus Funds of Six Arab Oil Producing Countries. Seminar on Investment Policies of Arab Oil Producing Countries.(126)

In an effort to provide some sort of context for these figures, table 6.9 below gives several indicators for three Arab countries in 1968. The purpose of the table is not so much to provide a delicate analytical tool, but more of a heavy blunt instrument. What it amounts to is that there is no easy way of measuring the potential surplus of funds except to say that for all oil producing countries, in the Middle East it will be 'large'.(127)

Table 6.9 Indicators of the Expenditure of three Arab Countries in 1968

($ million)

	1 Government Final Consumption Expenditure	2 Gross Fixed Capital Formation	3 Oil Revenues	4 Projected Revenues 1974
Saudi Arabia	653	593	907	17,869
Kuwait	402	440	712	6,207
Iraq	326	431	500	5,373

Source: 1 and 2. U.N. Yearbook of National Accounts 1970 Vol. 1.
3. Petroleum Press Service September 1971
4. Table 6.8

It follows, that given a surplus of funds over expenditure there is no reason to assume that the producing countries will seek to increase revenues further.(128) In this situation there is no reason why the producing countries should cause price instability by alterations in the present offtake levels, beyond minor miscalculations with respect for allowance of the growth in demand.

It would appear then that the effects of the host country as a crude seller as a result of participation, need have no drastic effects on the price structure of crude oil in world markets.

However, it is important to remember that the above analysis assumes that the price of oil is expected not to fall. If a fall in price is anticipated, then the whole situation alters. If the price of oil falls, then revenues foregone now is lost forever, unless the price rises again at some future time. Consequently,

if it is anticipated by the producing countries that the price may fall, they are likely to maximize production now in order to take advantage of the present high price. Since this implies a considerable increase in supply, the anticipated fall in price has provided a mechanism whereby the 'anticipation' becomes self fulfilling. In this case the analysis based on competative price reductions due to oversupply at existing prices becomes a likely possibility.

A further possible consequence of the host country as a crude seller after 'participation' lies in the effects of barter arrangement on the world oil market.

As a result of 'participation' the host countries find themselves in the position of having to dispose of very large quantities of crude oil. This creates problems for the host countries, apart from those which relate to the effect upon price already discussed. Firstly, there is the difficulty of which currency the host countries should ask for in payment. Before participation there was doubt about the use of the United States dollar as the payment currency. In January 1972 agreement was reached at Geneva between the host countries and the companies over the compensation to be paid for the devaluation of the dollar, since the majority of government tax revenues were received in dollars. Even with such an agreement, the present instability in the international monetary system makes any currency an uncertain proposition, particularly for long term contracts.

From a more general point of view, given the increased price of oil, the requirements of currency to pay for the oil could put incredible pressure on the availability of international liquidity for other trading requirements. Before the price rise at the end of 1973, the International Monetary Fund estimated the Arab surpluse at $12,500 million. The OECD estimated that after the end of 1973 price rise, oil importers would have to find an extra $50,000 million to meet the price increases at existing demand levels. This would put the total surplus around $62,500 million. At the end of 1973, total world reserves of gold, foreign exchange and special drawing rights was $186,445 million.(129) Such situation obviously has very serious implications for the international monetary system and world trade.

A partial solution to these problems lies in the use of barter deals of oil for industrial goods, technology, arms etc. Quite obviously, if all the oil could be sold on a barter basis, this would eliminate the problems which arise from the use of a currency intermediary. Assuming barter deals were acceptable as a means of the disposal of crude, the quantity of oil sold on such a basis is largely a function of the ability of the producing countries to absorb the physical goods and services offered.(130) Given the limitation on absorption capacity which exists for the Middle East producers, a considerable quantity of crude oil would still have to be sold outside of the barter arrangements, but some relief to the problems could be forthcoming.

With respect to the absorption problem, a rather sinister means to expand the capacity can be found by the encouragement of an arms race in the area concerned. Military hardwear has the dubious merits of being phenomenally capital intensive,(131) together with a high rate of obsolecence, either through technological change or

usage.[132] On these grounds, the potential absorptive capacity of an economy can be radically expanded if the country desires modern fighting forces. If the countries are grouped around a contended area, vis the Persian/Arabian Gulf, then demand for military goods will grow at an exponential rate.

A further benefit to the host country from barter deals concerns the problem of 'imported inflation'. As the price of oil has risen, so too has the world price of manufactured goods. Consequently, part of the benefits of increased oil prices have been lost because they have been partly converted into increased prices for manufactured goods. To compensate for more expensive manufactured goods by further increases in oil price would, by a cost push mechanism, simply lead to further increases in the price of manufactured goods. Barter deals alleviate this problem by translation of the terms of exchange into units of real output.

There have been indications towards the end of 1973 that the benefits outlined above have encouraged the host countries to seek such barter deals. In January 1974 it was announced that an agreement had been initialled between France and Saudi Arabia. Saudi Arabia was to sell 800 million tons of oil over the next 20 years to France in return for Mirage jets and heavy arms. At 40 million tons of oil per year this represents 18% of Saudi Arabia's total offtake and 39% of French crude oil consumption for 1971. Similar agreements have been reported and rumoured between Saudi Arabia and Britain, and Iran and other industrial countries.[133]

If the trend of barter agreements of this magnitude continues, it will have some implications forthe future structure of the world oil market.

In particular, if the trend of Government - Government agreements continues, then the future role of the oil companies in the Eastern hemisphere seems uncertain. The first implications is that the companies will have difficulty in replacing their losses of owned crude by recourse to the arms length market. If supply is limited by the host countries, then each barter deal represents a loss of crude to the arms length market from which the private companies obtain their crude. This however need not, per se, prove disastrous, if the consuming governments then make their acquisitions of crude oil from barter deals available to private companies in order that they should process and market it, rather than have the crude processed by government owned companies.

Two factors suggest that the companies position in this matter may be far more complex and uncertain. It is very likely that where the consuming government has its own national company[134] then the national oil company will receive preferential treatment in the supply of crude oil. In addition, the producing countries still seek an entry into downstream operations. As a result, a logical course of action would be for them to obtain this downstream activity by the formation of joint ventures with the consuming governments.

If this were to develop on a large scale then not only would the companies' role as buyers and owners of crude oil be threatened, but their role as product producers and marketers would also come under attack. Since the new governmental joint venture companies would seek to capture an increasing share of the existing product market, the form of 'the attack' would almost invariably mean price competition in the product markets. In such a price war, the owner-

ship of crude and the surplus funds available would almost certainly lead to the predominance in the product market of the new government joint ventures. Taken to its logical conclusion, such a course of events could ultimately eliminate the oil companies in their present form.

There is one final implication of 'participation' which relates to the future position of the oil companies. This concerns the effect of the companies' buy back prices on the world price of oil.

As has already been pointed out several times, under 'participation', whatever terms are finally agreed upon, the host countries will receive far more crude oil than they can directly market themselves. As a result arrangements have been, and are being made, for the companies to 'buy back' some of this crude oil for processing through their own integrated channels. The companies will pay for this oil at a buy back price.

For example, in April 1974, it was announced[(135)] that agreement had been reached between Qatar and its companies, whereby the buy back price was fixed at 93% of the posted price for the first six months of 1974, subject to review on a quarterly basis. Similar agreements can be expected between Saudi Arabia, Kuwait and Abu Dhabi and their respective companies. This represents a considerable victory for these producing countries who have for some time been insisting on a buy back price equal to 93% of the posted price.

The implication of these buy back arrangements is that the companies are effectively underwriting the present price of crude oil. At present, the governments of the consuming countries regard the price of oil as 'too high'. This suggests a strong conflict of interests between the companies who are prepared to maintain the present price of oil in order to assure themselves of an oil supply, and the consuming governments who wish to see the present price of oil reduced.

This potential clash of interests adds further weight to the argument that consuming governments through government-government barter arrangements and other measures(136) may seek to weaken, if not replace, the oil companies in their present form. This, on the grounds that the oil companies are no longer serving the interests of the consuming countries.(137)

One weakness in this argument lies in the time span of the buy back contract. If these contracts were fixed on a long term basis, say anything over five years, then the above argument would be fairly strong. However, the present buy back arrangements are to be subject to a quarterly review. At first sight there is no reason why the companies should not seek to renegotiate the buy back prices at a lower level, if market conditions allow it. In this sense the companies are only underwriting the price of oil for three months at a time.

However, two factors may require that this proviso undergoes further qualifications. Firstly, as the buy back agreements are formulated on the basis of formal negotiations between the host countries and the companies, the producing countries may be

able to keep better control over the market. Since buy back prices are announced as a percentage of the posted price, a mechanism is provided to detect the 'cheating' described earlier.(138) Secondly, it has been assumed that the companies' interests lie in a reduction in the price of crude oil, but it would appear that company profitability has risen with the rising price of crude. If there is a connection between this improving profitability and the rising price of crude, then obviously the companies have no incentive to renegotiate lower buy back prices. If this is the case then the governments of the consuming countries will be likely to closely evaluate the extent to which the oil companies are serving their interests.(139) The conclusion may well result in the weakening of the role of the companies in the way described above.

Conclusion

This conclusion is intended to serve two purposes. Firstly, it is an attempt to bring together the strands of the different chapters in an effort to evaluate what has been learnt about oil joint ventures in the context of the Middle East. Secondly, it is an attempt to explore what the future role of the joint venture may be in the Middle East, not only in oil, but also in other fields of activity.

Before an attempt at evaluation, it would be useful to recall the initial objective of the thesis as outlined in the introduction. The objective was twofold. To examine the factors which have affected the development of joint ventures in Middle East oil, and then to examine the effects of the development of these ventures on the oil industry itself. Given the objective, in some ways the thesis achieves its purpose and in other ways it falls short.

In terms of describing the factors which influenced the rise of the joint venture agreements, a considerable difficulty was to examine the experience of different countries whose background and experience may widely differ, and from this, produce general factors. Despite this problem certain general influences have been identified. The first of these was dissatisfaction with the 'old style' concession form of agreement. This dissatisfaction arose partly from the 'rigidity' of these agreements and partly from the managerial freedom which they granted to the operating companies, at a time when the host countries expressed a growing interest in participation in oil operations. These factors go a long way towards explaining why the concession agreement was replaced for new acreage,

and changes sought for existing producing acreage.

The reason that the replacement agreement took the form of the joint venture arrangement was essentially because of shortages faced by the host countries. These shortages were shortages of foreign exchange, skilled manpower, technology and markets. The term shortage is of course a relative rather than an absolute measure, and it is not suggested that the host countries had none of these factors. They did exist in the host countries to one degree or another, but not on a scale for all the factors to meet the needs of the host country in any programme of intensive oil development. On the other hand, the foreign companies had access to all these factors, but lacked rights over oil producing areas. The joint venture arrangement enabled these complementary factors and requirements to be brought together in one company. Thus the joint venture arose from the complementary needs of the two parties to the agreement.

An important factor which encouraged the rapid spread of these venture agreements once they had been introduced,was the mechanism described by the 'law' of increasing terms. Once the early agreements were signed, and their apparently relatively favourable terms to the host country were known, it became virtually a political necessity for new acreage to be let on this basis; either with the use of an equity joint venture, or a contract agreement, which, if the earlier definitions are recalled, is also a form of joint venture.

Much of the explanation of the effect of these ventures on the oil industry arises from their complementary base. The joint venture developed in Middle East oil in a period of intensified conflict between host country and foreign company. This intensification

of conflict arose largely because the host countries were beginning to flex their bargaining muscles, and so swing the relative bargaining power which existed between them and the companies in their favour. Because of the complementarities of the joint venture, the venture acted as a new mechanism of coexistence between the host country and company. It was as a potential reducer of conflict that the joint venture had its greatest impact on the industry. This is not to suggest that the venture arrangement eliminated conflict. In fact as has been shown, in some ways potential conflict was intensified. However, a new framework was provided in which it was possible to resolve conflicting interests.

As to the effects of the joint venture on specific aspects of the oil industry, these have already been described and analysed in the relevant chapters, and need not be repeated.

This brief summary of the thesis would be incomplete if mention were not made of some of the shortcomings of the work. Firstly, the thesis does not evaluate any particular venture, particularly with respect to the financial costs and benefits involved. However, it should be pointed out that this was not the intention of the thesis, which was to examine joint venture in general rather than the activities of any particular venture. Unfortunately, because of the small number of operating ventures, the work leans heavily for its practical analysis on the experience of the three Egyptian joint ventures. It is therefore legitimate to ask if a general study can be based on such a relatively narrow base of experience? Obviously the study would be improved by the addition of material from other operating ventures, although the

'narrow base' of the three Egyptian ventures does represent a 'sample' size of 43% of the population of operating ventures. Also, the Egyptian experience exhibits the common factors mentioned earlier, namely dissatisfaction with the concession and relative shortages of some of the key factors.

Secondly, given the general approach and the limited number of operating ventures studied, there still remain gaps in the information. The origin of these omissions have several sources. In the best of circumstances the researcher in the field of oil is constantly hampered by what the participating governments and companies choose to hide under the label of 'commercial confidentiality'. In addition, in the Middle East, where many of the countries consider themselves to be in a state of war, refusal to supply information on the grounds of 'commercial confidentiality' is strengthened by claims of national security, particularly in a sector as strategic as oil. On these grounds collection of adequate data can at best be difficult.

In a study on joint ventures, acquisiton of information faces yet a further problem. Much of the interest over joint ventures centres on the problems of conflict and disagreement between the parties and individuals within the venture, far more so than in a study of unified companies. Naturally, enough, members of the ventures are reluctant to elaborate on these difficulties to an outsider. As a result central issues in the study of joint ventures are frequently obscured for lack of adequate information. Furthermore where the information is available it is often based on informal discussion. This makes the processing of the information by statistical analysis very difficult if not impossible, and thus

more liable to the personal bias of the researcher. While it is hoped that this may be offset by the objectivity of the researcher, to misquote an historian, it is a very dull researcher who does not have a bee in his bonnet. The secret is to listen for the buzzing.

Work has been done on joint ventures on the basis of formal questionnaires, but the limitation here is that the questionnaire, to be effective, must be short, and therefore limited in scope. For example, the study cited earlier by A.K. Rifai on Egypt was based on a questionnaire which would have taken several hours to complete. On these grounds alone the validity of some of the findings must be considered dubious.

As a consequence of all this, gaps do appear in the work, but two deserve specific explanation. Most of the existing works on joint ventures spend much time on a discussion of the motivations and objectives for the entry of a foreign company into a joint venture type arrangement. In the case of oil however, such a discussion is redundant. Given the oil companies decision to seek sources of owned crude, the way in which the company is to acquire this crude, at least since the early sixties, has been determined by the wishes of the host country. The second omission is that this study which professes to be a study on joint ventures in Middle East oil virtually ignores the operations of the most important joint ventures in this area namely the operating companies of the major concessions. The reason for this omission is simply that a study of these ventures is a study, and a very considerable one, in its own right, and has already been done.(1) Also the purpose of the study was to examine ventures in which the host government, directly or indirectly, was a major partner.

The reason for this emphasis is that given the role of government in the economies of most Middle East countries, future joint ventures in the area, both in oil and other fields, are likely to have the government as a partner.

What then emerges as the present and future role of joint ventures in Middle East oil? Their role began as the provider of a framework and mechanism whereby complementary needs could be met, and conflict between the host country and foreign company could find means of resolution. Whether or not the venture succeeded in this role depended on how far the venture was able to implement decisions which, while being optimal for the venture, may have been sub-optimal for one of the partners. When such a situation arises, then the venture could be said to be resolving conflict by the discovery of an identity which is independent of either parent. In other words, the venture begins to act as a unified company rather than as an agent which simply represents the two partners. When and if such a situation arises, is a function of two factors. It reflects the way in which the staff of the venture see their role with respect to both the venture and the parents. It is also a function of how far the parents objectives diverge, and the extent to which the common interests expressed in the idea of the venture are stronger than the interests of the individual partner.

This role of the venture appeared to reach its peak in the Middle East when it was proposed to convert the operators of the major concessions into such ventures. However it appears that this role of the venture has been overtaken by events as the host countries seek more or less immediate total control over the major oil operations.

The fact that the situation appears to have outgrown the venture is the result of several factors. It is apparent that the host countries now feel that their individual interests are stronger than the interests they may have had in common with the major companies in the creation of joint ventures to operate the major concessions. This in turn arises because one of the key shortages, markets, no longer appears as a shortage. Once this situation arose, the mechanism of the 'law' of increasing terms led to its rapid spread.

The question now to be asked is if this outdating of the joint venture is permanent, or if joint ventures will have any future role in the oil development of the Middle East? It seems likely that there will be a future role for the venture for the following reason. Even though the host countries may take control of the major concessions, shortages of the factors mentioned earlier will still remain. This will be so, especially for the smaller oil producing countries, and in the marginal areas of the major producers. Therefore, in these two areas at least, it is likely that the trend towards greater use of joint ventures will continue, and may even accelerate as oil becomes a more important commodity. This is because in these areas risk capital for exploration, technology and skilled manpower will have to be provided from outside the economy if other sectors of the economy are not to be starved of these resources. The joint venture arrangement has already proved itself as a mechanism by which these factors can be transmitted.

The joint venture will also have an important role to play in the development of non oil sectors for similar reasons.

The watchword now in the Middle East, more than ever, is economic development. Economic development requires just the sort of factors which the oil joint ventures have shown they are able to transmit from the industrial countries. Consequently, it can be expected that there will be a very rapid expansion of the numbers of joint ventures outside the field of oil.

NOTES

Introduction

1. For a further discussion of the problems involved in these definitions see S.J. Rubin, The International Firm and the National Jurisdiction. In the International Corporation, C.P. Kindleberger (Editor), M.I.T. Press 1970.

2. The old style concession is also a contract agreement in a legal sense.
3. Hereafter referred to as joint venture. The other forms of joint venture i.e. old style concession and contract, will be specified as such.

Chapter 1

1. Hereafter, referred to as the concession.
2. S.L. Longrigg, Oil in the Middle East. Chapter 2. Oxford University Press, Third Edition, 1968.
3. Ibid.
4. Ibid. Chapter 7.
5. See E.T. Penrose, The Large International Firm in Developing Countries. p. 59-62. George Allen and Unwin Ltd., 1968.
6. Originally the Near East Development Corporation included Jersey Standard, Socony Mobil, Atlantic Refinning, Gulf Oil and Pan American Petroleum and Transport Company. In 1930 Atlantic and Pan American Sold their interests to Jersey Standard and Socony (now Mobil Oil). Gulf did likewise in 1934.
7. United Nations Statistical Yearbook.
8. Participants in the Iranian Oil Participants Ltd. (the Consortium) were as follows. Jersey, Socal, Texaco, Mobil and the Gulf Oil Company (Gulf) 7% each. BP 40%, Royal Dutch Shell (Shell) 14%, Compagnie Francaise des Petroles (CFP) 6%, and the IRICON agency 5%. See Longrigg op.cit. Chapter 16.
9. These were Standard Oil Company (New Jersey), Royal Dutch/Shell Group, British Petroleum Company, Gulf Oil Corporation, Texas Oil Company, Standard Oil of California and Mobil Oil Corporation (formerly Socony Mobil). Some writers refer to eight majors by inclusion of Compagnie Française des Pétroles.
10. See Penrose, Large Firm op.cit. p. 78.
11. For example, in 1950 the seven majors controlled 72% of refinery capacity. This figure covers the same area as the figure for oil production. Ibid.
12. The exception was Gulbenkian's 5% holding in IPC, although Gulbenkian's share of the Oil went to the majors.
13. See Penrose, Large Firm op.cit. Chapter V.

14. For Iran the life was 93 years, for Iraq 75 years, for Saudi Arabia 66 years and for Kuwait 93 years. The earliest to end was the concession with Iran, which was to end in 1994, while the longest was with Kuwait, which was to end in 2026. See Z. Mikdashi, An Introduction to Middle East Oil Relations Prior to 1960 Table 1. In Continuity and Change in the World Oil Industry p. 85 ff. The Middle East Research and Publishing Centre, 1970.

15. Longrigg op.cit. p. 407.

16. Mikdashi op.cit. p. 87.

17. The concession areas were as follows:- Iran about 500,000 sq. miles out of 600,000 sq. miles. Saudi Arabia 617,000 sq. miles out of 860,000 sq. miles. Almost all of Iraq and Kuwait. See Mikdashi op.cit. p. 90.

18. By 1963 Aramco had given up 75% of its original territory. E.T. Penrose. OPEC and the Changing Structure of the Oil Industry. In Continuity op.cit. p. 154.

19. By Law 80 of 1960 Iraq sequestered more than 99% of IPC's territory, IPC was allowed to retain only the producing fields.

20. For example, in May 1962 Kuwait Oil Company (KOC), owned by BP and Gulf, relinquished 2,700 sq. miles out of a total of 5,800 sq. miles, with provision for further relinquishment. Longrigg op.cit. p. 400.

21. For example the Arabian Oil Company agreement of 1957-58. Longrigg op.cit. p. 311.

22. In the 1954 agreement, which created the Consortium, the two operating companies formed by the Consortium each had two Iranian directors out of seven directors for each company. Longrigg op.cit. p. 277. In 1959, Aramco took two Saudis onto the Board Ibid. p. 295.

23. Various attitudes within the host countries towards the oil companies are summarized in D. Hirst, Oil and Public Opinion in the Middle East. Faber and Faber, 1966.

24. For example, see Mikdashi op.cit. who puts forward this viewpoint.

25. See Chapter IV for a further discussion of this point.

26. There were other aspects of the operations involved, but many of these can be covered under the broad heading of managerial freedom, for example, the flaring of gas.

27. Penrose, Large Firm op.cit p. 201.

28. The extent of the control demanded by the host countries varied, not only between countries, but also between groups within the same countries.

29. For a brief survey of the dependence on revenues see M. Iskandar, Economic Development Plans in Oil Exporting Countries. In Continuity op.cit. p. 39ff.

30. Saudi Arabian Monetary Agency (SAMA), Annual reports for the relevant years.

31. The Shah of Iran has plainly stated that a situation in which foreigners can control the rate of development of his country's resources is intolerable. E.T. Penrose, Iran as a Pacemaker in Middle East Oil. In E.T. Penrose, The Growth of Firms and other Essays. Frank Cass, 1971.

32. For example, Ahmed Zaki Yamani, the Saudi Minister of Oil, stated, in the introduction to the Petromin Annual Report 1968, that one of the main aims of the national oil company was the 'encouragement of the private sector and mobilization of national capital... to profit from the country's wealth and resources.'

33. In practice the foreign companies have tried to maximize their local purchases. For example, Aramco set up an Industrial Development Department (AIDD) to encourage the development of local suppliers. See C.S. Coon, Promoting Industrial Development in Saudi Arabia. In Hands Across Frontiers, ed. H.M. Teaf and P.G. Franck, 1955.

34. In Saudi Arabia, in 1955, 75% of such gas was flared. In 1965, 64% was flared, representing 800 million standard cubic feet per day.

35. The Kuwait Petrochemical Company and the Saudi Arabia Fertilizer Company were both founded on the basis of this 'unwanted' gas.

36. See Chapter VI.

37. In the case of Iran, acreage had been available since the 1954 settlement, However, it was not until 1956-57 that the institutional framework existed to handle this acreage. See p. 31-34.

38. Apart from considerations of resource inputs, in 1959, only Iran and Egypt had national oil companies to provide the institutional framework. Not until 1965 did all the countries under consideration have national oil companies.

39. For an outline of the limitations which applied in Egypt and Iran, see pages 20-22 and 31-34.

40. Longrigg op.cit. p. 278. For the reasons behind the American independent's desire to enter the Middle East see J.G. Maclean (Chairman Continental Oil Company), The Importance of Newcomers in the International Oil Business. Middle East Economic Survey (MEES), Vo. XI, No. 24.

41. For a description of some of these indepndents and their acquisitions of acreage see Penrose, The Large Firm op.cit. p. 33-144 and p. 73-76.

42. Quoted by Abdallah Tariki in Z. Mikdashi, A Financial Analysis of Middle East Oil Concessions 1901-1965. p. 238. Praeger, 1966.

43. Penrose, Large Firm op.cit. p. 74.

44. Petroleum Press Service (PPS). September 1964, p. 331.

45. Longrigg op.cit. p. 310-311.

46. Ibid. p. 407-408.

47. See Chapter II.

48. Just how the joint venture agreement fulfills these requirements is the subject of Chapters III and IV.

49. The companies were not only prepared to pay signature bonuses, but also to offer very favourable terms to the host countries.

Chapter II

1. The Gharib field began production in 1938, and was owned by Anglo Egyptian Oil fields Ltd. (AEO). See Petroleum in the United Arab Republic 1960. General Petroleum Authority.

2. Ibid. Table 8-1, p. 536-7

3. The first serious petroleum legislation came with a Council of Ministers' decision in 1906. Ibid. p. 305-7.

4. For the 1920 Law see Ibid. p. 307-319, for 1937 Ibid. p. 320-324, for 1948 Ibid. p. 324-330, for 1953 Ibid. 330-342.

5. See Longrigg op.cit. p. 255-261; as a result of the 1948 Law, by 1951, all foreign companies had ceased drilling.

6. Ibid. p. 40. The Abu Durba field was handed over to a local company, The Egyptian Oil Syndicate, for exploitation.

7. Ibid. p. 40.

8. For details of the training school and other aspects of training, see Petroleum op.cit. Chapter IV.

9. Ibid.

10. Ibid. p. 40.

11. For the details of Law 135 see Petroleum op.cit. p. 346-348.

12. Article 2, Law 135 of 1956.

13. Petroleum op.cit. p. 351.

14. Ibid.

15. For an outline of the developments in the Egyptian economy in this period see P.K. O'Brien, The Revolution in Egypt's Economic System. R. Hair Dekmejian, Egypt under Nasser. State University Press, 1971 and P. Mansfield, Nasser's Egypt. Penguin, 1969.

16. See note 5.

17. Petroleum op.cit. p. 417-429.

18. Jersey had withdrawn from Egypt because of the 1948 legislation.

19. The 'nationality' clause which caused so much difficulty in the 1948 Law was dropped in Law 66 of 1963. Instead, it only stated that the 'applicant must have the necessary financial and technical requirements for this purpose' Article 26. 'This purpose' was the production of crude oil.

20. M.A. Mughraby, Permanent Sovereignty over Oil Resources. Middle East Research and Publishing Centre, 1966.

21. Because of the absence of any published information on COPE, the information which follows draws heavily on discussions with many of the people involved. These discussions took place during my field trip to Egypt in 1972.

22. For a discussion of these exploration control devices see p. 49-53.

23. Before the 1957 agreement, which created COPE, was signed, Agip had bought out the American interests in IEOC.

24. In 1959, IEOC had agreed to take only 50% of the profits of COPE, thereby giving up 1% of its previous 51% share. The change in equity in 1961 came as the result of new regulations in May 1960, which precluded any foreign controlled company (i.e. with a majority of the equity) from operating in the Western Desert. See Longrigg op.cit. p. 342.

25. Nationalization on a large scale began in February 1960.

26. See Longrigg op.cit. p. 342-344 and Petroleum op.cit. p. 453-458.

27. This oil came from the Bakr and Karim fields discovered in 1958.

28. In 1958 Egypt imported, 38 million barrels of crude, in 1960 imports were 132 million barrels. Petroleum op.cit. Table 8-7 p. 543.

29. Federation of Industries of the UAR, Yearbook 1970.

30. AEO was effectively nationalized in 1961; COPE in 1962.

31. MEES, Vol. V., No. 8.

32. Ibid. Vol. VI., No. 37.

33. Eng. Ali Wali (Former Minister of Industry) Interview, Cairo 29/9/72.

34. A subsidiary of the Standard Oil Company of Indianna.

35. A subsidiary of the Phillips Petroleum Company.

36. The source for the details concerning this, and all other joint venture agreements cited, is the English translation of the agreement in question, unless otherwise stated.

37. In 1962 the GPA became the Egyptian General Petroleum Corporation (EGPC). See p. 27f.

38. See Chapter V.

39. Ibid.

40. Since June 1967, apart from some contract drilling for other companies, COPE has ceased to function as a producing company.

41. See Chapter V.

42. Eng. Ali Wali Perspective on the Egyptian Oil Industry MEES. Vol. XII, No. 52 p.3.

43. MEES. Vol. XI, No. 45.

44. By 1964, there were eight companies; the GPC and COPE, the Suez Oil Processing Co. El Nasr Petroleum Co. (formerly AEO). The Alexandria Petroleum Co. Petroleum Pipelines Co. COOP and the Misr Petroleum Co.

45. For example, in the second five year plan 1965-70, the oil sector represented by EGPC was allocated a total of LE 122 million.

46. MEES. Vol. XV, No. 20.

47. MEES, Vol. XV, No. 46.

48. In 1971-72 Oil Production was 24% below the previous year MEES. Vol. XVI, No. 7.

49. MEES. Vol. XVI, No. 15.

50. Ibid.

51. Ibid. Vol. XVI, Nos. 30 + 31.

52. Ibid. Vol. XVI, No. 39

53. Penrose, Iran op.cit. p. 296.

54. For example, with respect to the importance of oil in the economy and the domination of Iranian oil by the majors.

55. For a description of these developments see Longrigg, op.cit. Chapter X; G. Stocking, Middle East Oil. Chapter 7. Vanderbilt University Press, 1970; and B. Shwadran, Middle East, Oil and the Great Powers. 1959. Chapter VI.

56. Article 4 of the Agreement.

57. Stocking, Middle East op.cit. p. 161.

58. This greater participation was hoped for, not only in the Consortium, but also in oil developments outside the control of the Consortium.

59. Stocking, Middle East op.cit. p. 163.

60. For example, NIOC set up the Iranian tankers Ltd. and the first tanker was delivered in 1958.

61. Longrigg op.cit. p. 286.

62. Petroleum Act 1957, Article 1.

63. The Chairman of ENI, and very much the driving force of that organization. See P.H. Frankel, Mattei, Oil and Power Politics. Faber and Faber, 1966.

64. Dow Vatow, The Six Legged Dog p. 20. University of California Press, 1966.

65. Agip-NIOC 1957, Article 12.

66. MEES. 4a, 1957.

67. A term used to describe the majors, allegedly invented by Mattei.

68. See Vatow op.cit.

69. See Table 2.2, page 15.

70. MEES. Vol. 11, No. 40.

71. Ibid. Vol. III, No. 9.

72. For an outline of the aims of Petromin see A. Yamani's foreward to the Petromin Annual Report 1968. p. 5ff.

73. Ibid.

74. A subsidiary of Enterprise des Recherches et d'Activites Petrolieres (ERAP).

75. All other agreements contained provision for international arbitration. See p. 83-85.

76. For an outline of the dispute and the negotiations which produced the attempted 1965 settlement see Longrigg, op.cit. and G. Stocking, op.cit.

77. After the death of President 'Aref in 1966, dissension grew in INOC over the 1965 agreement until its ratification was postponed. Finally, Law 97 of 1967 forbade the return of North Rumaila to IPC which made the agreement unworkable.

Chapter III

1. Some writers have made the distinction in this context between the geological and commercial risk. (For example T. Stauffer, Measuring the Profitability of Petroleum Operations. 8th Arab Petroleum Congress, paper 110 (A1). The commercial risk is defined as the risk involved in the production of a good, which is brought to market, where it must sell at a certain price to recoup and outlay and secure a return. The geological risk lies in the fact that the product of exploration is knowledge of geology, and the risk is whether this knowledge will be such as to find oil in sufficient quantities to provide a financial return to justify the original investment. However, whether a field is commercial in the sense of providing an acceptable rate of return is a function of both commercial factors (mainly the price of oil) and geological factors, which partly determine the cost of oil. Given this mutual dependence, to divide the risk into commercial and geological seems somewhat superious.

2. For example, both in Egypt and Syria, the period of exploration was made distinct from the period of development and production by the issue of exploration permits. Development licenses were then issued on commercial discovery.

3. Signature bonuses reflect the 'attractiveness' of the acreage i.e. the degree of promise shown by earlier exploration efforts. Egypt has never been considered sufficiently attractive to warrant signature bonuses.

4. For example, the signature bonuses paid by Shell and the Tidewater group in 1965 to Iran were $9,833 per sq.km. and $17,777 per sq.km. respectively. Those paid by the Atlantic group and the group formed by Agip, Phillips and the Indian Government were $3,125 per sq. km. and $4,250 per sq.km. respectively. The first two failed to find commercial oil, the last two did find commercial oil.

5. Most agreements allow any debits or credits incurred in the minimum obligations in one period, to be carried over to the next period.

6. F. Parra. Oil concessions and contracts dealing with uncertainties. MEES. Vol. VI, No. 14.

7. For example, if at the time of surrendering the area, 'expenditure in prior years and in the year in which such notice of surrender is given, have aggregated less than the amounts specified for such years ... an amount equal to one half the deficiency shall be paid to the Government'. Pan-Am-EGPC 1964, article 6 section b.

8. Ibid. article 16 section a.

9. Ibid. article 6 section d.

10. Law 66 of 1953, Article 27.

11. Ibid article 68 section d.

12. For example see Pan-Am-EGPC 1964, Article 1 section h.

13. For example Pan-Am-EGPC 1963 specifies 500 bd over a thirty day test run, while the Hispanoil-KNPC 1968 agreement specifies 15,000 bd.

14. In a paper to the Eighth Arab Petroleum Congress (Paper 91 (A-I) on the question of commercial discovery, Eng. A.M. Dareer points out that the divergences in the barrel per day criterion in joint venture agreements represents a ratio of 30:1. On the other hand the differences in production cost are approximately 3:1, while the price differences are approximately 4:1.

15. For example, Pan-Am-NIOC 1958, article 15, states that a commercial discovery exists if the quantity of oil is such that delivery of oil at a seaboard leaves a net profit of greater than 25% of the posted price, after the cost of production, transport and 12.5% of the posted price have been deducted.

16. Agip-NIOC 1957, article 8 section e.

17. For further details see p. 62-63.

18. These two conditions have been taken from E.T. Penrose, Vertical Integration with Joint Control of the Raw Material. Journal of Development Studies. Vol. 3, April 1963.

19. The period 1957-1970 was a period when crude oil prices were falling, and the crude oil market was generally slack. See Chapter VI. Consequently, it was anticipated that the national oil companies of the host countries, who were largely sellers of crude oil as opposed to processors, would have some difficulty in disposing of their offtake. The Iranian agreements actually make the explicit assumption that NIOC will be the underlifter.

20. All the foreign companies entering joint ventures to date have been crude deficit companies, in the sense that their refinery capacity exceeded their supplies of owned crude.

21. It is still open to the foreign company to sell the crude on an arms length basis. i.e. outside its own integrated channels.

22. This assumes that the national oil companies can use only a small proportion of their crude as inputs to their own domestic refineries. Except for Egypt, this is the case.

23. This assumption is legitimate to facilitate analysis, and most writers acknowledge the assumption.

24. This is in fact the case with IPAC in 1971. Crude A is Darius crude, crude B is Cyrus crude.

25. Cope 1959, Article IX.

26. Agip-NIOC 1957, article 12.

27. Cope 1959, article XI, Underlining mine.

28. For example, Pan-Am-EGPC 1964, article VII section d.

29. Ibid. article XIV section b paragraph 21.

30. Ibid. paragraph 7.

31. Ibid. paragraph 5.

32. Ibid. article XIV section e.

33. When the foreign company acts as a marketing agent there is greater room to alter price.

34. Eng. Ali Wali, interview op.cit.

35. Article X.

36. H.O.'Connor, World Crisis in Oil. p. 297. Eleck Books, 1963.

37. These roles can be reversed and the realised price used as a tax reference price, while the posted price can be used as a market offer price when marketing allowances are introduced.

38. Cope 1959, article IV.

39. See p. 105.

40. Pan-Am-EGPC 1964, article XII section c.

41. See for example, Ibid. Annex D on accounting procedures, and Annex E on Taxable Profits.

42. Cope 1959, Article IV.

43. For example, Pan-Am-EGPC 1964, Article XVI section e.

44. In some cases, the national oil company of the host country was subject to the income tax provisions, but this merely represented a move of income between institutions belonging to the same entity.

45. Except in the Saudi Arabian agreements, where the Government had the right to unilaterally alter tax rates. Also in the 1971 vintage of Iranian agreements, the income tax rate was fixed at 55%.

46. For example, the Hispanoil-KNPC 1967 agreement provided for a production bonus of KD 1 million when production reached 100,000 b.d., and a further KD 1 million on each additional 100,000 b.d. of production up to 500,000 b.d.

47. If no commercial discovery is made, the foreign company must withdraw leaving the signature bonus to the host government.

48. See Chapter I note 33.

49. MEES. Vol. V, No. 21.

50. For example Petrolube was formed by Petromin with Mobil holding 29% of the equity. For other examples see Petromin Report op.cit.

51. MEES. Vol. V, No. 21.

52. Pan-Am-EGPC 1964, article IX.

53. Agip-NIOC 1957, article 5.

54. Ibid. article 6.

55. Pan-Am-NIOC 1958, article 9 paragraph 1.

56. The initial capital for the Iranian operating agencies was 2.5 million Rials.

57. In fact, in most joint venture agreements outside Iran, the host government is also a signatory to the agreement.

58. For example, IEOC-EGPC 1963, article XXXIV.

59. One purpose of royalty oil is to allow the host government to sell it abroad, to keep a check on whether the prices claimed to have been obtained by the companies are realistic.

60. In the Egyptian agreements, there is also a clause which allows the Government to requisition the entire offtake in the event of a 'national emergency'.

61. The Government has options on a further 5%, at cost, on the third anniversary of granting the concession, or when production reaches 300,000 b.d. and a further 5% on the same terms on the sixth anniversary, or when production reaches 700,000 b.d.

62. In all, the Saudi Government has options on up to 30% of the offtake, some of this at very favourable terms.

63. See p. 64-67.

64. The marketing allowances are only used in agreements where the idea of 'posted price' is used.

65. For a discussion of the validity of this premise see Chapter VI.

66. W.G. Friedman & G. Kalmanoff (eds.), Joint International Business Ventures. p. 5. Columbia University Press, 1964.

67. In the Iranian ventures of 1957-58, a clause was inserted which granted 1% of the equity to a Swiss bank. The purpose of this was to provide an arbitrator in the event of a deadlock between the two parties. The clause was never actually operated.

68. Each side provides four directors. The Board requires a majority of six to pass any resolution.

69. In the agreements the title of this post varies, but general manager comes closest to an accurate description.

70. Egyptian Law 114 of 1961.

71. See Pan-Am-EGPC 1964, article VII section c.

72. Agip-NIOC 1957, article 33.

73. Pan-Am-NIOC 1958, article 13.

74. For example, Mobil-NIOC 1971, article 12 section 7.

75. Pan-Am-EGPC 1964, article XXIX section 6.

76. For further details of the legal aspects of this see Mughraby, Permanent Sovereignty, op.cit.

77. See Agip-NIOC 1957, articles 42-44. and Pan-Am-NIOC 1959, articles 39-41.

78. Law 66 of 1953, article 45.

79. IEOC-EGPC 1963, article XVI section e.

80. Pan-Am-EGPC 1964, article XLII section c.

81. Dr. H. Kholi, Head of Agreements Department EGPC. interview, Cairo 19/7/72.

Chapter IV

1. The reason for the examination being brief, is that much of what follows, has been said before by others. However, a short outline will assist the understanding of the contribution of joint ventures.

2. This applies not only to oil agreements, but also to the other concession agreements for the extraction of natural resources. For example see T.H. Moran. Pulling, Pushing, and Shoving: A model of the relations between foreign investors and host countries in large natural resource concessions. Mimeographed paper.

3. Much of the following discussion is drawn from J. Pen, The Wage Rate under Collective Bargaining. Harvard, 1959.

4. The length of the short run depends on how soon the company is able to develop new sources.

5. Pen op.cit. quoted in K.W. Rothschild (ed.) Power in Economics. p. 112. Penguin, 1971.

6. The company need not be a foreign company. The same would apply to a local company.

7. This assumes that one's economic power, or lack of it, is reflected in one's bargaining power.

8. It may be more realistic to think of the concept as a principle or tendency rather than as a 'law'.

9. The principle will apply very strongly in one country, unless the acreage which is offered emerges as very poor indeed. A good example of the effect of the Law can be seen in relation to the negotiations carried on in Egypt in 1972 with foreign companies. One of the foreign companies offered EGPC a joint venture in which EGPC would have 55% of the equity. This offer was declined by EGPC. The main reason for the refusal was the fear, on the part of the EGPC officials, that if they had agreed to a 55% equity share, great pressure would be brought to bear on them to convert all existing ventures into ventures in which EGPC would own 55% of the equity. It would also mean that all future ventures would also have to have a similar division of equity.

10. For the 'Law' to operate between countries, there must be some degree of competition for the acreage. An example of the role of 'political competition' is provided by the creation of GUPCO. When El Morgan was declared commercial, and GUPCO was being created, the initial agreement (Pan-Am-EGPC 1964) came under attack from petroleum 'radicals' outside Egypt. This pressure was taken up by groups

within Egypt and directed towards the Minister who was accused of being too lenient to the foreign companies. As a result, the Minister actually approached EGPC on the advisability of a revision of terms. EGPC, in response, rejected any such suggestion most strongly, on the grounds that this would upset existing agreements and frighten off potential bidders. This advice was accepted, although some minor changes were introduced. In this case the 'Law' did not operate totally between countries, but this is partly because of the dissimilarity between the joint venture agreements and the concession agreements with which they were being compared.

11. The 'improvement' may well be illusory.

12. In the Middle East, subsoil mineral rights are the property of the state.

13. While it is true that the agreements are concerned with other aspects than finance, to establish a mechanism for sharing the benefits is its main purpose.

14. This assumes that the economic power is reflected in the relative bargaining power, which in turn is reflected in the terms of the agreement.

15. For a discussion of the concept of exploitation, see E. Penrose, profit sharing between countries and companies. Economic Journal Vol. LXIX, June 1959. And C.P. Kindleberger, International Economics. p. 418-419. R.D. Irwin, 1963.

16. See p. 81.

17. This second category often arises after discussions over various aspects of the first category, have been going on for some years.

18. Participation and control, from the view point of the host country, can be defined as a situation which allows the host country to restrict the managerial freedom of the foreign company.

19. This ignores royalties, rental etc.

20. Adelman, World Oil Market op.cit. p. 210.

21. This, in a sense, normalizes foreign investment in oil. Foreign investment in the USA or UK simply pays the taxes laid down by the Government with no argument over the principle. Although, there may be 'discussion' over what is deductible etc.

22. See p. 117-120.

23. The extent of participation depends on how far the potential is used.

24. It is unlikely that a country, with very little to offer in the way of manpower or finance, would enter a joint venture. The only exception would be if the 'Law' of increasing terms were to 'force' a country to do so. It is significant that the only concessions granted in the Middle East since 1961 have been in the Trucial States.

25. See Chapter I.

26. It was partly in anticipation of this problem that the sole risk clause was introduced.

27. This is not strictly true in an economy with a high level of central government control. Here, the Government has its own intersectoral logistics to consider. Unfortunately, while many accept the validity of the companies' logistics, the government's logistics tend to be dismissed as bureaucratic inefficiencies.

28. See p. 58.

Chapter V

1. Most of the data will be drawn from Egypt, since it was in Egypt that the majority of my field studies were carried out.

2. MEES. Vol. XII, No. 51.

3. This was a contract agreement rather than an equity venture. See p. 27-31.

4. Dr. H. Kholi, interview op.cit.

5. Iran, in particular, has been criticized for this. See MEES. Vol. 1, No. 34.

6. There have been many improvements in the technical obligations concerning the number of rigs to be used, etc.

7. GUPCO & WEPCO Annual Reports 1969-70.

8. For example, see the definition in the NOSO-EGPC 1970 agreement, Article 1 section h.

9. A 28°API low sulphur crude.

10. Mr. G. Lamfranchi, General Manager IEOC. Interview, Cairo 27/9/72.

11. Mr. M. Rushdi, Economic advisor to EGPC. Interview, Cairo 10/9/72.

12. See p. 137.

13. Petroleum op.cit. and the Central Bank of Egypt, Economic Review. relevant years.

14. To a large extent, Egypt's experience between 1967-69 is distorted by the war.

15. MEES. Vol. XIV, NO. 40.

16. G.Stocking, National Oil Companies and OPEC'S Aims. MEES. Vol. X, No. 29.

17. The original agreement was not published. The details of the financial development and managerial development of COPE are drawn from discussions with a great number of people during my field trip to Egypt, some of whom prefer to remain anonymous. Because much of my findings do not show ENI in a very favourable light, I invited comment from AGIP in Milan, to preserve a balance. Unfortunately, AGIP declined to make any comment.

18. For the mechanism see p. 68-72.

19. Appointed outside the scope of the agreement.

20. Defined as the ratio of owed to owned capital.

21. A further implication of a high gearing ratio is that the amortization element of cost, further reduces the size of taxable profits.

22. Notably Vatow op.cit.

23. Ibid. p. 19.

24. November 14th 1961.

25. This occured partly through IEOC's right to be paid in convertible currency.

26. The ways in which this deterioration manifested itself are outlined on p. 147.

27. IEOC had refused to accept COPE's accounts for the period 1962-65.

28. This represents 31.45 million barrels which is quite large compared to COPE's output. See page 107, table 5.3

29. The only activity of COPE after 1967 was some contract drilling and 'lending' of staff to other companies.

30. It is not clear whether ENI is receiving compensation from Israel for the loss of Belayim.

31. For a further discussion of the reasons behind the change to operating agencies see p. 120-148.

32. GUPCO Annual Report 1971-72.

33. 31.5% of the $7 million was in Egyptian currency.

34. MEES. Vol. XIV, No. 6.

35. R. Steihler, General Manager WEPCO. Interview, Alexandria 7/8/72.

36. T.R. Stauffer, The ERAP agreement, a study in marginal taxation pricing. 6th Arab Petroleum Congress paper 72 (A-1).

37. This was the first contract agreement to be signed in the area.

38. For a criticism of Dr. Stauffer's paper by Dr. K. Shair see MEES. Vol. X, No. 27.

39. MEES. Vol. XV, No. 39.

40. 'Better' in this context means more profitable to the host country.

41. Presented to the Eight Arab Petroleum Congress. reprinted in MEES. Vol. XV, No. 39.

42. This is however a retrospective exercise and is of limited use to the policy maker considering future agreements.

43. Al Ahram Al Iqtisadi, 15th October 1971.

44. MEES. Vol. XIV, No. 6.

45. Two notable exceptions are J.W.C. Tomlinson, The Joint Venture Process in International Business (India & Pakistan) MIT Press, 1970. And L.G. Franko, Joint Venture Survival in Multinational Corporations. Praeger, 1971.

46. W. Skinner, American Industry in Developing Economies. p. 3. J. Wiley and Sons Inc., 1968.

47. The Organization and Function of COPE. The Organization Department of COPE. February 1971.

48. This was the interpretation of the management side.

49. In the projected organization of COPE (Organization op.cit.) there are to be six directors, two from each party. A majority of five will be needed to pass any resolution.

50. These decisions include anything concerning the budget, the approval of the Annual Balance Sheet and profit and loss account, the distribution of profits, changing the size of share capital the winding up of the company, and any amendment to the statutes.

51. For example, 'Such decision or judgement (taken by GUPCO) is the result of the mutual agreement of EGPC and Pan-Am, the principals of GUPCO's Pan-Am-EGPC 1964, article VII section e.

52. Mr. I. Naguib, Legal Advisor COPE. interview, Cairo 13/9/72.

53. Ibid.

54. Minutes of the COPE Board, May 29th 1962.

55. This can be defined as a decision taking body of more than one person of equal status.

56. M. Weber, The Theory of Social and Economic Organization. p. 398. The Free Press, 1964.

57. Ibid. p. 398.

58. Dr. M. Amin. Chairman WEPCO. Interview, Cairo 22/7/72.

59. The Coordinating Committee consisted of the General Manager and the Divisional Heads.

60. See p. 128 Two of the Directors representing Phillips, like their counterparts in COPE, were non executive, but at least they were based in Alexandria where WEPCO also had its offices. This would make ad hoc Board meetings easier to arrange than in the case of COPE.

61. For a definition and discussion of this see p. 135 f.

62. Annual Reports for the relevant years.

63. Organization op.cit.

64. Eastern Hemisphere Petroleum Directory. Relevant years. The only Iranian was the personnel director.

65. This was because workers could not be made redundant, coupled with the generally poor employment prospection in Egypt.

66. This change came too late to affect COPE.

67. Or from one of the parents affiliates. For example many of the Egyptian staff of the ventures came from EGPC's subsidiaries.

68. Amin, interview op.cit.

69. In the light of this, dualism in COPE could be expected to last longer, since promotions from within the venture were hampered by the grading system. See p. 135.

70. In both cases the foreign company agreed to the Egyptian's proposal rather than have the sole risk clause invoked.

71. For discussions on this see Skinner op.cit.

72. Unpublished Ph.d. University of ~~Southern California~~ SYRACUSE, 1965.

73. Franko op.cit.

74. Defined as a change in the division of the equity between the partners.

75. See p. 111-115.

76. For example, The development of the Alamein field by WEPCO was financed entirely by Phillips, who lent EGPC's share of the funds.

77. For example, see Pan-Am's role in the development of El Morgan. p. 115.

78. See Freidmann and Kalmanoff op.cit.

79. See P. 84-84.

80. Mr. I. Radwan, Economic Advisor EGPC. Interview, Cairo 29-30/8/72.

81. The general consensus of the senior managers with whom I discussed this seemed to be that once the Annual budget and work report had been agreed upon, the venture was left to implement them without interference.

82. Particularly by means of the Consultative Committees, which are composed of experts from the different companies, affiliated to EGPC and whose function is to advise the Board of EGPC.

83. Mr. A.D. Campbell. Vice President AMOCO (Formerly Pan-Am). Interview, Cairo 26/9/72.

84. For example, the Minister decreed that oil products should be sold at the same price in Upper Egypt as they were sold inLower Egypt, despite the much greater transport cost. The subsequent loss on marketing operations in Upper Egypt was felt to be justified for social reasons.

85. See p. 124.

86. The difference between total and partial withdrawal is outlined below.

87. See p. 125.

88. See Chapter IV note 10, for the effect of this during the setting up of GUPCO.

89. See for example the dispute over Abu Qir p. 106.

90. MEES. Vol. II, No. 2.

91. It can be assumed that if there had been no favourable reaction from EGPC, the withdrawal would have become total.

Chapter VI

1. When the term participation is put in quotation marks, this refers specifically to the idea of participation outlined by Sheikh Ahmad Yamani and others, from 1967, which led to the General Agreement of 1972.

2. This participation clause was excluded from the 1933 Anglo-Iranian concession.

3. Article 34-1925 concession agreement.

4. See Chapter I.

5. For the definition of 'managerial freedom' see p. 9. The only progress made was the admission, by several of the operating companies, of host government sponsored directors. For example, in 1959 Aramco allowed 2 directors to be appointed by the Government.

6. For an outline of these Resolutions see M.A. Mughraby, Recent Developments in Permanent Sovereignty. MEES. Vol. X, No.14.

7. UN Resolution 2158, Section 1 Paragraph 5.

8. For the papers and Discussion of the 6th Arab Petroleum Congress see MEES. Vol. X, No. 21-25.

9. For example, see the paper by D.M. Al Khariji of Petromin, entitled, State Participation in the Administration of Oil Concessions.

10. For an outline of the abortive Iranian nationalization see. Longrigg, op.cit., Chapter X; B. Shwadran, op.cit.; Chapter VI Stocking, Middle East Oil op.cit. Chapter 7.

11. For details see Chapter II.

12. In Syria, the granting of exploration and development licenses was similar to Egypt, in so far as they were granted separately. In the early sixties, a consortium of Concordia and the Atlantic Refining Company, were seeking to convert Concordia's exploration license to a development license for the Suwaidiyah field, discovered in 1959 by Concordia. In 1964, Decree 133 excluded foreign participation in oil development, and so the General Petroleum Authority of Syria 'nationalized' the discovery wells. For further detail see Middle East Economic Consultants, Report No. 4, Syrian Oil Policies. May 1970.

13. 'Successfully' in the sense of reaching a settlement with the companies, thereby allowing the country to market its oil without legal hindrance.

14. The analysis which follows relies heavily on M.A. Adelman, The World Petroleum Market. Resources for the Future Inc. John Hopkins University Press, 1972.

15. OPEC, Resolution 1.2.

16. Much of the initiative came from Venezuela, who, as a high cost producer, stood to lose most from competitive price reductions.

17. For some of the problems see Adelman World Oil Market op.cit. p. 182-186.

18. Based on the Rotterdam composite figures Ibid. p. 83.

19. Ibid. p. 190. For the reasons behind this price decline see Ibid. p. 199-204.

20. For example, see G. Stocking, The National Oil Companies and OPEC's Aims. MEES. Vol. X, No. 29.

21. For a discussion of the Failure of prorationing, see Z. Mikdashi, The Community of Oil Exporting Countries. Ch. 5. Allen and Unwin, 1972.

22. MEES. Vol. X, No. 25. As the idea of 'participation' developed, Yamani used the Oil Seminar of the American University of Beirut as a platform from which to outline his ideas. Ideas on participation had been expressed before this, by Saudi Arabia, but were aimed at participation in acreage let to newcomers. For example, Saudi Arabia had signed its first joint venture agreement with Auxirap in 1965, see p. 42.

23. MEES. Vol.XI, No. 32.

24. Use of the general term 'host governments' suggests that Yamani was advocating a policy for application beyond Saudi Arabia.

25. Reprinted in Continuity and Change op.cit.

26. Throughout, Yamani defined the terms 'majors' and 'independents' in a particular way. A major was any company which pursued a policy aimed at the maintenance of stable prices. An independent was any company which operated in a way irrespective of its impact on the stability of prices. Thus, an independent company in the more usual definition could be a 'major', and vice versa.

27. In terms of Yamani's definition outlined in footnote 26 these national oil companies could behave either as majors or independents.

28. M. Iskandar, Arab Oil after the Summit. MEES. Vol. X, No. 46.

29. MEES. Vol. XI, No. 51.

30. Those that expressed direct interest other than Saudi Arabia and Kuwait, were Iran, Iraq, Abu Dhabi and Qatar.

31. Iraq joined the negotiations with an interest in the Basrah Petroleum Company.

32. See p. 173-178.

33. The signing of the agreement by Kuwait had limited significance, as ratification by the Kuwait National Assembly was required. This ratification was not forthcoming as the Assembly refused to accept the agreement.

34. The official reasons for the hostility, are outlined below, in the outline of the participation debate.

35. As early as May 1971, B.P. included among alternative assumptions in their company plans, assumptions of 20% participation and 50% participation'.

36. For the details of this, and subsequent analysis, see Adelman, World Oil Market, op.cit. p. 250-256, and Mikdashi, The Community op.cit. p. 145-156.

37. In 1972, Kuwait's production was 5% less than its production in 1971, in Libya the figure was 19.3% less.

38. The Agreement was published in MEES. Vol. XVI, No. 9.

39. Article 3 b.

40. Natural gas, not associated with oil production, was to be the subject of a separate agreement.

41. The crude oil production facilities included, 'exploration, development, production, pipelines, storage, delivery and export facilities, as shall be defined in the applicable Implementation Agreement.' Article 3 Section b.

42. The undivided interest form of concession ownership corresponds to the operating agency. The corporate form corresponds to the partially integrated venture.

43. Article 6 section b.

44. The importance lies in an apparently common assumption that the 'Participation' agreement replaced the existing concession, agreement.

45. See Pan Arab Consultants for Petroleum, Economic and Industrial Development (Parcon), 'The General Agreement on Participation in respect of crude oil concessions'. p. 139-143.

46. The use of the per barrel cost of productive capacity is an unsatisfactory measure of the cost of entry, since it ignores the reserves which the host countries have access to. Using the reserves given by the Oil and Gas Journal, Dec. 25th 1972, for each $1 of compensation paid, the host countries have ownership to the following number of barrels of reserves.

	Compensation $ m for 25% of the operating Co.	25% of Reserves (mb)	No. of Barrels of Reserves Obtained per $
Saudi Arabia	500	34,500	69
Kuwait	150	16,222	108
Abu Dhabi	152	5,195	34
Qatar	71	1,750	24.6

47. For explanationsof these terms, see below p. 169-170.

48. At the time the agreement was published (December 1972) this was not an unreasonable assumption, since Yamani was predicting an output of 20 m b.d. by 1980.

49. See Ian Seymour's outline of the agreement MEES. Vol. XVI, No. 9.

50. See MEES. Vol. XVI, No. 6.

51. For example, shortly before publication of the agreement, (although the terms were generally known) the chairman of the Kuwait Assemply's Economic and Finance Committee urged Kuwait to take steps to control all national rights over national resources. See MEES. Vol.XVI No. 3.

52. MEES. Vol. XVI, No. 11.

53. Interview in 'Al-Madinah', 27 October 1972-reported in MEES. Vol.XVI, No. 2.

54. 'Kuwait Oil Minister defends participation' MEES. Vol. XVI, No. 14. Underlining mine.

55. Ibid.

56. MEES. Vol. XVI, No. 34.

57. At the time of writing (January 1974) it appears that Kuwait has succeeded in obtaining an immediate 60% participation, while Saudi Arabia is in the process of negotiations. Through the mechanism of the 'Law' of increasing terms, the most favourably negotiations will almost certainly be taken up by the other host country signatories to the 1972 General Agreement.

58. For further details, see International Crude Oil and Product Prices, 15/4/1973.

59. However, in the first seven months of 1973 output of Middle East Oil rose some 23% compared to the same period in 1972. Yet, this considerable increase in supply, appears not to have had any impression on prices. Quite clearly, there is, some where, an element behind the increased prices which remains to be identified.

60. See table 6.5, p. 172.

61. MEES. Vol. XVI, No. 29.

62. MEES. Vol. XVI, No. 34.

63. For example, see table 6.1, p. 164.

64. OPEC announced a further increase in posted prices of 130% (Sic.) as from January 1st 1974. In the revised participation agreement, it is likely that bridging and phase in crude will be dropped altogether.

65. For example, see the details of the Iraq-IPC settlement of February 1973 in MEES. Vol. XVI, No. 19.

66. Stated by the Libyan Minister of Oil MEES. Vol. XVI, No. 3.

67. MEES. Vol. XVI, No. 43.

68. The Oasis Group consists of the Continental Oil Company, The Marathon Oil Company, Amerada Hess, and Shell.

69. For Occidental, total compensation was $135 million, which represented $194 p.b. of 25% of the productive capacity (compared with the Gulf figures given in table 6.3). However, on the basis of recoverable reserves (see note 50) for each dollar of compensation Libya was getting access to 41 barrels of oil (c.f. Saudi Arabia's 69 Kuwait's 108)

70. The Libyan buy back price was $4.90 p.b., compared to the average negotiated Gulf buy back of $2.50 p.b. MEES. Vol. XVI, No. 43.

71. Parcon op.cit.

72. For details see MEES. Vol. XVI, No. 52.

73. MEES. Vol. XVI, No. 1.

74. MEES. Vol. XVII, No. 8.

75. For further discussion of the role of the parents in a venture see p. 141.

76. For further discussions of the techniques of de facto control, see J.W.C. Tomlinson, The Joint Venture Process op.cit. and M. Kidron, Foreign Investment in India. p. 258-298. OUP 1965.

77. See p. 81.

78. The extent to which 'mutual trust' is a necessary condition for a successful venture is debatable, but Egyptian experience suggests it is.

79. See p. 12.

80. The following discussion draws heavily upon E. Penrose, Equity Participation and Sovereignty. Arab Oil and Gas, Vol. 1 No. 3.

81. See page 173-178.

82. Ibid.

83. British Petroleum Company Ltd. Annual Report 1971.

84. For further discussion see p. 188-199.

85. The assertion that a bigger company requires 'better' staff than a smaller company may be an over simplification. It may be, that the qualities required by the senior management of a large company, are quite different from those qualities needed by senior management of a smaller company. For example, the ability to successfully delegate. This may well invalidate any comparison on the basis of 'better' or 'worse'.

86. In joint ventures, downstream operations are not an integral part of the operation, as was assumed to be the case with participation.

87. The operating companies were already joint ventures see p. 1.

88. E. Penrose, Government Partnership in the Major Concessions of the Middle East: The Nature of the Problem. MEES. Vol. XI, No. 44

89. Between 1957-70 the seven major's return on net worth fell from 18.9% to 11.3%. See Mikdashi, Community op.cit. p. 139. It should be pointed out that some doubt has been cast on the 'accuracy' of oil company accounting methods. See T.R. Stauffer, Measuring the Profitability of Petroleum Operations. Conceptual and Empirical Difficulties. Paper 110 (A-1) 8th Arab Petroleum Congress.

90. Penrose, Govt' Partnership op.cit. p. 224 in Penrose, Growth op.cit.

91. For further discussion of the 'balancing act' of the majors see Adelman World Oil Market op.cit. p. 82f.

92. For the offtake history of Egypt, see p. 104-106.

93. See p. 163-169.

94. See p. 165.

95. The exception is if the company sells surplus crude on the arms length market.

96. For example, by insistence on the implementation of boycotts against certain goods or countries.

97. See page 145.

98. See Chapter V, Note 84.

99. This 'return' may be in financial terms or more simply in terms of crude oil obtained.

100. See p. 82.

101. See Chapter IV.

102. This is dependent upon how far equity division is reflected in the voting division at Board level. However, even a voting majority on the Board does not necessarily give a de facto control.

103. For an outline of the mechanism by which this can occur see p. 136-137.

104. See p. 137.

105. This assumes that a reasonable general educational background exists. If it does not, then the training period has to be lengthened accordingly.

106. A possible solution may be the hiring of expatriate managers, but there may be political constraint on such a course of action.

107. The extent to which the interests of the host country may suffer, depends on the size of the divergence of interest between country and company, and on its position in the policy making structure of the venture.

108. It is a reasonable assumption that the 'law' of increasing terms will ensure that the new terms secured by Kuwait will rapidly be adopted by the other Gulf countries.

109. For details of such comparisons see p. 117-120.

110. For estimates of the actual quantities of crude involved under the terms of the General Participation Agreement see p. 170.

111. See Adelman World Oil Market, op.cit. p. 166-182.

112. See Mikdashi, Community op.cit. Chapter 5.

113. Adelman, World Oil Market, op.cit. p. 88.

114. The market price is the rate of exchange between money and goods. The supply price is the least that needs to be paid to bring forth the output.

115. See Adelman World Oil Market op.cit. p. 199-200.

116. Ibid. p. 220. For details of some of the agreements concluded by the national oil companies to sell oil, see Ibid. p. 218-220.

117. See Mikdashi, Community op.cit. Chapter 5.

118. See Adelman, World Oil Market op.cit. p. 210-211. Where producing countries produce oil under a system of posted prices and income taxes, a mechanism exists whereby 'cheating' on the cartel can be detected. Tax is a public record. If there is a continual fall in a nation's tax revenues from oil, not explained by a move from higher to lower taxed crude, or by a fall in offtake, this suggests 'cheating'. i.e. the offer of more favourable terms to the companies to expand offtake. Also, tax changes are difficult to keep secret.

119. See pages 173-178.

120. As will be discussed shortly, this assumption of maximizing revenues in fact begs the whole question.

121. In reality, companies may make agreements with 'their' host governments without recourse to the market.

122. It should be pointed out that at the beginning of 1974, most Middle Eastern producers were pushing for further price increases. Only Saudi Arabia wanted a reduction in price. See MEES. Vol. XVII, No. 22.

123. Adelman, World Oil Outlook op.cit. p. 84.

124. See Mikdashi, op.cit. p. 116-119.

125. There may also need to be some adjustment for inflation andloss of potential interest, if the oil were lifted and the money invested.

126. These estimates are based on the assumption that the revenue is calculated on the basis of posted price, with no allowance for participation.

127. There will be a few exceptions of countries with a relatively small offtake, for example Algeria.

128. It is true, that in the mid sixties, when prorationing was discussed, Kuwait indicated a desire for further revenues, despite her surplus financial position. However, this was at a time when it was assumed that the price of oil would fall in the future.

129. International Monetary Fund, International Financial Statistics. Vol. XXVI, No. 12.

130. It is also, of course, a function of the ability of the Industrial countries to be able to export sufficient goods and services, to cover the cost of oil imported on a barter basis.

131. A Reuters report, March 1st 1974, indicated that Iran was to buy two military control planes, at a cost of $ 100 million.

132. Missiles etc, have the characteristics of non-durable consumer goods. i.e. they can be 'used' once only.

133. By March 1974, it appears that there may be disillusion with barter arrangements from the producing countries. There are also indications that the initial spate of barter agreements may have had certain political motivations, particularly in the case of Saudi Arabia.

134. For example, ERAP in France and ENI in Italy.

135. MEES. Vol. XVII, No. 26.

136. For example, by the use of fiscal weapons.

137. Such sentiments have been increasingly expressed, after the companies agreed to the price increases at Teheran and Tripoli.

138. See Note 118.

139. For example, the recent hearings carried out in USA on the Profitability of American Oil Companies, already suggest such thinking.

Conclusion

1. Notably, Penrose, The Large Firm, op.cit.

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