

**GOVERNMENT REVENUES PER BARREL
IN THE OPEC-COUNTRIES¹⁾
1957 - 1973**

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ABSTRACT

This paper covers the evolution of government-revenues per barrel of exported crude oil in the OPEC-countries from 1957, when the major oil-companies lowered their posted prices and thus the government revenues, through September 1973, when the relation between the oil-companies and the governments had so drastically changed that the recent enormous posted-price-increases could virtually be decreed by the OPEC-governments without any recognizable influence from the company-side. Also an indication will be given of the evolution of the realized prices of crude oil over that period. In appendices, tables and figures government revenues per barrel of exported crude, volumes of exported crude and total government revenues will be given for three representative OPEC-countries (Saudi Arabia, Libya and Venezuela) and for the total Middle-East, both in current dollars and in constant dollars (1957 \$).

INTRODUCTION

Two unique features of the oil-industry inevitably have a considerable influence on any study of that industry or a part of it.

In the first place we are faced with the fact that oil is at the moment an indispensable primary product for industrialized nations without large-scale alternatives on a short term.

Second comes the integrated structure of the so-called major oil companies, whose share in the total oil-business is 76% at present (1). This integration from production through transport and refining to marketing makes a clear and definite analysis of one of these elements of the oil industry virtually impossible. The only pricing mechanism that is operated by supply and demand is situated at the very end of

the long road from oil reservoir to gasoline station (or any other selling point of a finished petroleum product), and no such markets exist on a sufficiently large scale at the intermediate stops on this road, as is the case with other raw materials. Yet one must have a more or less accurate price at these points, especially since borders are crossed along the road, which is a complicated affair in these tax-ridden days.

This study will concern itself with the crude oil exports from the countries of the Organization of Petroleum Exporting Countries (Abu Dhabi, Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia and Venezuela) and especially with the revenues per barrel of exports received by these countries. For the calculation of the tax on each barrel of exported crude one needs, as mentioned above, a price for or value of that barrel at the point it leaves the country. For this purpose a so-called posted price or tax-reference-price was determined by the companies, which was originally supposed to be close to the price that would have been realised if there had been an open market.

The study will cover the history (from 1957 through 1973) of the posted prices, the government revenues derived therefrom and will give an indication of the realized prices of the oil. In the Appendices an example of calculating government revenues per barrel under various tax-regimes will be given and also, in tables and figures, the total revenues and the revenues per barrel of exports for three representative OPEC-countries (Saudi Arabia, Libya and Venezuela) and for the total Middle East. This will be done, for reasons that will be stated later, in constant dollars (1957 \$), as derived by means of the United Nations Index of Exports of Manufactured Goods, as well as current dollars.

¹⁾ "In view of the present energy-situation the readers of our periodical might be interested in a factual review of the development of governments' revenues per barrel of exported crude oil in representative OPEC-countries. This article has been prepared by R.G. Tamboezer from a paper written by him during the months of August and September 1973 in fulfillment of a part of the requirements for the degree of mining engineer at the Dept. of Mining Engineering, Delft University of Technology, under supervision of Prof. Mr. P. Schierbeek and Prof. Ir. W.H. van Eek."

The Editor.

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PRELUDE: 1957-1960

In the period 1957-1960 the major oil companies due to, as they said, a downward pressure on the prices at the market side of their operations, reduced the posted prices of their crude oil. These decreases had been preceded in the first half of 1957 by an increase in the posted prices as a result of the closure of the Suez-canal in 1956. The combined effect of these price-movements was in Venezuela a return to the pre-

Suez-crisis level, in the Middle East an average reduction of 13c/bbl, i.e. about 7% (2). If the companies attributed the reductions to the normal demand and supply mechanism of a free market, the governments of the principal producing countries outside the U.S.A. thought otherwise and considered the reductions as unjust unilateral actions by the companies. Even in 1973 they are labeled by the Secretary-General of OPEC, Dr. Khene, as "...irresponsible cut-offs..." (3). In any case, the reductions led to the creation of OPEC in September 1960. The principal aims of the organization are stated in the first Resolution (4):

1. Endeavoring by all possible means to restore the price of crude oil to the level existing before the reductions.
2. Ensuring that the oil companies maintain their prices at a stable level, avoiding any unnecessary fluctuations.

The real goal was of course restoration and stability of the government revenues per barrel, a goal which can be reached not only by restoring the posted prices but also by changing the taxation applied to that posted price. In the first ten years of OPEC, as we shall see, it is mainly in the later field that at first slight improvements in government take were secured, as the posted prices remained constant at their August-1960-level throughout the sixties. A second glance will show that these improvements were substantial nevertheless, as the realized prices dropped considerably below the posted prices during that period, thus changing the government-company profit-split in favor of the exporting countries (5).

THE SIXTIES: THE CALM BEFORE THE STORM

The first few years of OPEC were for a large part spent with organizing the organization and defining more narrowly the goals it had set for itself. Among other things OPEC issued a resolution in 1962 to the effect that the oil prices, that is to say the government take per barrel, should be linked to an index of prices of goods which the member countries had to import (6). In order to investigate whether and if, when this goal has been achieved, government takes will not only be reported in current dollars in this study but also in constant dollars (1957 \$) as derived by means of the U.N. Index of Exports of Manufactured Goods (7).

GOVERNMENT TAKE PER BARREL

Until 1964 no significant change in the government take per barrel, which was calculated on the basis of the so-called 50-50 system, which is in theory a 50-50 split of posted prices minus production cost (and at that time some small discounts off posted prices), took place. The slight (downward) variations in the government take, as reflected in the figures and tables, are mainly caused by a trend towards more heavy-oil consumption, with corresponding lower posted prices and taxes (8). In 1964 after two years of negotiations the first

important change in favor of the governments was achieved: the expensing of the royalty. This meant that the royalty of 12.5% of the posted prices would no longer be considered as a pre-payment on taxes only, but that 50% tax would be calculated on posted prices minus production costs minus royalty. As a compensation, however, the companies obtained a discount allowance off posted prices of 8.5% in 1964, 7.5% in 1965 and 6.5% in 1966 (9). The discount would be renegotiated for the years after 1966.

In 1965 a first attempt was made by OPEC to gain control over oil-prices by means of production-programming (10). This was no success at the time (11).

In the years 1966 and 1967 a new attack was launched by OPEC at the existing taxation. Goal was this time the eventual elimination of all discounts off posted prices. After long negotiations an agreement was signed in January 1968 which provided for the gradual elimination of the marketing discount of 6.5% in the years 1968 through 1972 (12). This was still the time of quid pro quo however, and the gravity-allowances would rise during those years and start declining in 1972 to be eliminated completely in 1975. The total result of this agreement would be a government take increase of about 5.9 t/bbl in 1975! (13). In view of the government take increases in the seventies the agreements of 1964 and 1968 may seem negligible, at the time they were significant concessions on the part of the oil-companies and consequently victories for OPEC and its member countries. The balance was beginning to move, slowly as yet, but soon, as we will see, the scales will decisively be turned in favour of the producing countries.

Prices

As stated before, a study of realized prices is a difficult task, if possible at all.

Two lines of approach are possible. First, one can study the so-called arm's length sales, i.e. sales of crude oil to third parties, for example independent refiners. Although these sales comprise only a small part of the total oil trade (14), one can assume that they will reflect oil-price trends. Probably they will fluctuate more strongly with varying supply and demand situations than the bulk of the oil trade.

The second method is calculating backwards from product prices in consuming nations by subtracting all costs, like refining and transport, and thus arriving at a so-called net-back price for the crude oil. A problem with this method is that if, as has been the case in recent years, the tanker rates are subject to tremendous fluctuations, it is difficult to arrive at realistic crude oil prices. During the sixties, however, the tanker rates were fairly constant (15), at least until the Suez-closure in 1967, which makes reasonable calculations possible.

The most detailed and thorough study in this field was made by Adelman (16) and concludes that throughout the sixties, with only occasional price increases due to extraordinary circumstances, for example the closure of the Suez-canal in June 1967, prices went down (17). The derived net-

back for Persian Gulf crudes declined gradually from about \$ 1.50 to \$ 1.23 (current money) per barrel over the period 1960 through May 1967 (18). After the Suez-closure no clear picture can be arrived at (19), as the mentioned fluctuations in tanker-rates then started to blur the image.)

Consequently, as the government take remained constant and even improved slightly, the company profits decreased considerably during the period. First National City Bank estimates a change in the company-government profit-split from approximately 50-50 in 1957 to about 27-73 in 1969 (20).

Summary 1960-1970

Although OPEC did not reach their original goal of restoring the government income per barrel to the high levels of 1957/1958, they did achieve stability at and even improvement on the August 1960 level (measured in constant 1957-dollars). In current dollars they almost reached the level of 1957/1958. This in itself is a very impressive achievement in the light of the continuing and rapid decrease in income on the side of the oil companies.

1970-1973: THE HECTIC YEARS

Led by Libya the OPEC-countries started the seventies with an all-out attack to ensure higher tax revenues per barrel. This time it was no longer drawn-out bickering about allowances and discounts but straight demands for posted-price- and tax-rate-increases. Libya deserves attention as one of the most spectacularly rising oil-producing countries (21). In 1955 it attracted the oil-industry with a very favourable petroleum law. After an extensive exploration program the first oil was shipped in September 1961. In 1969 its oil exports amounted to over one billion barrels (22). Also it had secured as only country considerable increases in government revenue per barrel through the sixties by amending the original Petroleum Law, notably in 1961 and 1965 (23). Their revenues increased from 62.7 ¢/bbl in 1962 to 101.6 ¢/bbl in 1967 in current money (62.1 and 93.2 ¢ respectively in constant money) (24). In the sixties Libya became one of the main suppliers of the life-blood for the European industries, due to its favourable location and the quality of its oil (low sulfur content), a condition from which it could derive considerable pressure to back up its demands for higher oil-revenues in 1970.

In May 1970 the TAP-line, a pipeline transporting about 450.000 bbl/day from the Middle East to Mediterranean harbours, was damaged by a bulldozer in Syria. The Syrian government refused for undisclosed reasons repairs of the pipeline, which were eventually carried out in January 1971 within 12 hours (after acceptance by the company to double its payments to the Syrian government) (25). This, combined with the fact that the Suez-canal was still closed, enabled the Libyan government (which had changed hands from King Idris to the Revolutionary Council of colonel Gaddhafi in

1969) to exert pressure through a method which had so far not been used with success: production cutbacks. This time it worked. After a total cutback of about 800.000 bbl/day through August (average production in 1969 was about 3 million bbl/day) Occidental gave in as first company in September 1970. Rumors were circulating at the time that the government had also threatened a take-over (26). The effect of the agreement was a 30¢ increase in posted price (40°API crude) plus a tax rate increase from 50% to 58% (27). The posted price was to increase another 10 ¢ over the next 5 years. The other companies soon followed suit and in October Shell agreed as last company to the changes, after its total exports were cut off on September 22nd. For those companies the tax-rate would increase to 54-55% (27). Although the effective date of the settlement was September 1st, 1970, the Libyan government demanded that it be retro-active to January 1st, 1965! (28). They got their way in the shape of retro-active surcharges on current taxes. Soon the other OPEC-countries demanded similar increases. In the very complicated situation postings for various Middle East crudes went 9 ¢/bbl up on November 14th (29). Venezuela stunned the oil business by simply issuing a non-negotiated increase in the tax-rate to 60% (which formerly had been a scale escalating to a maximum of 52%), retro-active to January 1st, 1970 (30). Furthermore, it authorized the executive branch of government to fix unilaterally the export values on oil (31), the first real departure from the company-right to set these prices. Amidst the turmoil the XXI OPEC-conference in Caracas in December 1970 demanded a number of improvements in government revenues, to be bargained collectively by one negotiating team representing the Gulf States. Libya made a list of its own for new increases in government take (32). This time the oil-companies also decided to negotiate collectively. "A fast agreement, or else..." was the atmosphere in the following talks at Teheran and Tripoli. With deadlines and oil-embargo-threats agreements were reached at February 15th, 1971 (Teheran) and April 2nd, 1971 (Tripoli), both giving the exporting countries substantial increases in revenue per barrel. It was a long way since the years small increases could be secured through extensive negotiations only.

The essentials of the complex Teheran-agreement are the following (33):

1. The tax-rate goes up to 55%.
2. All posted prices are increased by 35 ¢/bbl.
3. All posted prices will be increased by 2.5% plus 5 ¢/bbl on June 1st, 1971 and on January 1st of the years 1973, 1974 and 1975 to counteract the monetary erosion of the dollar.
4. Posted prices of crudes between 30° API and 40° API will be increased by 0.5 ¢/bbl per degree below 40° API.
5. All discounts off posted prices will end on the effective date of the agreement.
6. The short-haul premiums for oil shipped at the Mediterranean will be limited to 21.5 ¢/bbl.
7. The agreement will remain in effect unaltered for 5 years

after the effective date (even if one of the other OPEC-members obtains better conditions)

This last point is the only real quid pro quo the companies demanded and got. The total government revenue per barrel increase amounted to about 46.5%, including the previous November 1970 increases (34). For this price the companies bought the much-hailed five-year "stability and security". It would not prove to be a very good buy as we will see.

Libya, in the meantime, was pressing for more than the Teheran settlement would give them. In the Tripoli agreement the integral Teheran-deal is applied plus a few extra's (35):

1. A short-haul premium of 13 ¢/bbl on postings that will be linked to freight rates, to be revised quarterly.
2. A temporary Suez-canal premium of 12 ¢/bbl on postings, to be re-adjusted in case of re-opening of the canal.
3. A low-sulfur premium of 10 ¢/bbl on postings plus a 2 ¢ increase on January 1st of each following year until 1975.

In May and July 1971 Nigeria and Algeria respectively signed almost identical agreements with the companies (36).

The "five-year" peace didn't last that long. In August of the same year OPEC stated participation as a goal (37) and started to seek compensation for the weakening dollar, which as of August 15th was set free to "float". As for the participation, while a fact-finding committee was investigating the matter, it was Libya again who disrupted the relative tranquility by nationalizing BP in that country. The reason for the nationalization was claimed to be a retaliation for British complicity in Iran's seizure of three islands in the Persian Gulf, but some people thought it was Libya's own way of "solving" the participation problem (38).

In the same month Venezuela increased its tax prices and set "penalties" for variations in 1972 oil exports above or below "base" volumes of 1970 (39).

The currency problem was settled for the time being with the Geneva-agreement, signed on January 20th, 1972, providing for an increase in postings of 8.49% and an adjustment formula to link the postings to the average exchange rate of the currencies of nine industrialized countries against the dollar (40). Originally only signed by the Teheran-agreement-countries, it was later in the year extended to Libya and Algeria.

The participation-issue kept minds busy throughout the year and on December 20th, 1972, Saudi Arabia and Abu Dhabi signed a general agreement with the oil companies (41), while Qatar and Kuwait soon followed suit (42). The level of participation would be 25% per January 1st, 1973 (the effective date) and would be increased by 5% on January 1st of the years 1978, 1979, 1980 and 1981 and a final 6% on January 1st, 1982, leading to a final participation level of 51%. For the share obtained by the governments the companies would be paid an updated book-value of expenditures made before the agreement became effective (43). During the first years a large declining share of the produced oil that now belonged to the governments would be bought back by the companies (as so-called bridging-oil and phase-in

oil) at prices between tax-paid cost and posted price (44). This served two goals, in the first place it enabled the companies to fulfill their existing supply obligations, secondly it gave the governments the time to secure market-outlets for their oil.

Once again it was hoped that these agreements would lead to a "more stable future" (45). Once again, however, the future proved to be "slightly" unstable as 1973 would show.

In the meantime Venezuela had secured a major increase in government take, mainly by means of a freight "adjustment" formula (46).

On the 12th of February 1973, the dollar was devalued by 10%. Although the Geneva-agreement had a formula for adjusting posted prices in case of currency shifts, OPEC wanted more and got it in the so-called Geneva II - agreement, signed in June, which increased postings 11.84% over their January 1st levels for the Persian Gulf and 12.5% for the short-haul crude (47). Also the currency adjustment formula was altered to the effect that two other currencies were added and that it would react to smaller currency changes (1% vs. 2% for the original Geneva-agreement) (48).

In the meantime Iran, which had not joined the participation talks, had secured an agreement through which it would take over all operations and facilities immediately. Of the produced oil a decreasing portion would be sold back to the companies at cost plus a fee (49). The effect of this agreement was the same as the participation agreements, which had been the intention (50).

Venezuela had also increased tax-reference-prices to eliminate the effect of the dollar devaluation (51). The soaring tanker-rates also added considerably to their government take because of the new freight adjustment rate (52). In August and September, after months of varying demands (53) and the nationalization of Bunker Hunt, the partner of the already nationalized BP (54), Libya again outdid all the others by nationalizing 51% of all oil operations within its border (effective date: September 1st) (55). The oil would be sold back to the companies at \$ 4.90/bbl, thereby sharply increasing government take per barrel. This price was considerably above all going prices (56).

This led in its turn to new demands by the other OPEC countries to reopen talks in October in order to improve government revenues per barrel due to the changing circumstances (57).

The circumstances are changing indeed and the long-awaited stability is not yet in sight.

Prices

As the integrated (!) profits per barrel were only slightly higher than the government take increases resulting from the Teheran and Tripoli agreements, the prices had to start rising (58). The methods for calculating fairly reliable crude prices described in the preceding chapter can hardly be applied for the period 1970-1973, due to the fact that the tanker-rates fluctuated too wildly to make reasonable netback calculations possible and that open market crude sales are still too

small in volume to use them for anything more than discerning a trend in oil prices. We will restrict ourselves, therefore, to the general remark that this trend is up, especially in 1973, and that the price-increases are fairly close to the tax-paid-cost-increases, although this can hardly be determined yet for 1973. This is confirmed by the First National City Bank reports (20), which show an almost constant company profit per barrel in current money for the years 1970 and 1971 (33-34 ¢/bbl). (The decline in profit/bbl in 1972 can probably not completely be attributed to non-compensated increases in payments to the governments, as it was a bad year for the companies in more respects). As a result of this constant company-profit and an ever-increasing government-take the company-government profit-split shifted further in favour of the governments, namely to about 20-80 in 1971 and 17-83 in 1972.

Summary: 1970-1973

In the years 1970-1973 a tremendous change in the relationship between producing countries and oil companies took place. The ever-increasing dependence of the oil-thirsty industrialized world on those countries started to pay off handsomely for the latter. They reached, with the first big posted price hikes in 1970/1971, the original goal of OPEC, i.e. to get government revenues per barrel back to the level of 1957/1958, even in constant money, although this is incorrectly denied by dr. Khene, Secretary General of OPEC (59).

After that they went on to ever larger revenues per barrel in years not quite so quiet as was the intention of the 1971-agreements.

APPENDIX I

Calculation of government revenue per barrel for different tax-regimes and posted prices 1960-1973 Arabian Light, 34° API

1. Pre-1964, 50 – 50 regime

\$ 1.800 posted price
\$.110 assumed production cost
\$.036 assumed 2% marketing allowance
\$ 1.654 tax base
\$.827 50% tax = government revenue per barrel.

2. 1964-1971, 50 – 50 regime with royalty expensing including decreasing discount allowances and increasing gravity-allowances.

1964: 8½% discount allowance, no gravity allowance.
\$ 1.800 posted price
\$.110 production cost
\$.225 12.5% royalty
\$.153 8.5% discount allowance
\$.005 marketing allowance

\$ 1.307 tax-base
\$.654 50% tax
\$.225 royalty
\$.879 government revenue per barrel.
1965: 7½% discount allowance plus gravity allowance.

\$ 1.800 posted price
\$.110 production cost
\$.225 12.5% royalty
\$.135 7.5% discount allowance
\$.009 gravity allowance
\$.005 marketing allowance
\$ 1.316 tax base
\$.658 50% tax
\$.225 royalty
\$.883 government revenue per barrel
For the years 1966, 1967, 1968, 1969 and 1970 similar calculations yield government revenues per barrel of \$.886, \$.886, \$.894, \$.901 and \$.908 respectively.

3. After Teheran, February 15th, 1971, 55% tax, no allowances.

\$ 2.180 posted price
\$.110 production cost
\$.272 12.5% royalty
\$ 1.798 tax base
\$.989 55% tax
\$.272 royalty
\$ 1.261 government revenue per barrel.

4. After Geneva I, January 20th, 1972.

\$ 2.479 posted price
\$ 1.442 government revenue per barrel, calculated as above

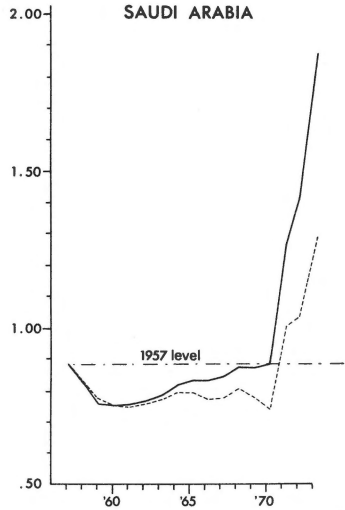
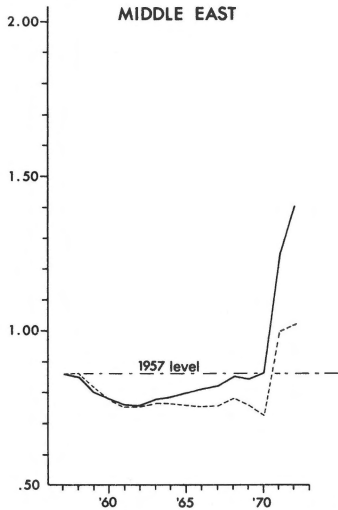
5. January 1st, 1973, with 25% participation (See note 44 on phase-in- and bridging oil)

Total exports divided as follows:
75% company share
25% Government share of which:
18.75% Sold back to companies as bridging oil
3.75% Sold back to companies as phase-in oil
2.5 % Sold directly by government
25 %

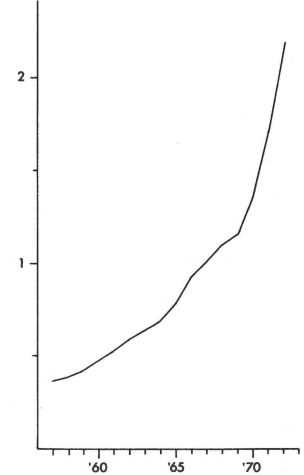
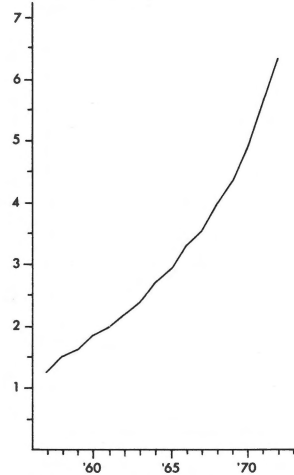
\$ 2.591 posted price
\$ 1.510 government revenue per barrel for company oil (75%), calculated as above (4)
Total government revenue per barrel thus becomes:

0.75 x \$ 1.510 = \$ 1.133 (company oil)
0.1875 x \$ 2.050 = \$.384 (bridging oil)
0.0375 x \$ 1.970 = \$.074 (phase-in oil)
0.0250 x \$ 2.15 = \$.054 (government oil, assumed market price)
\$ 1.645

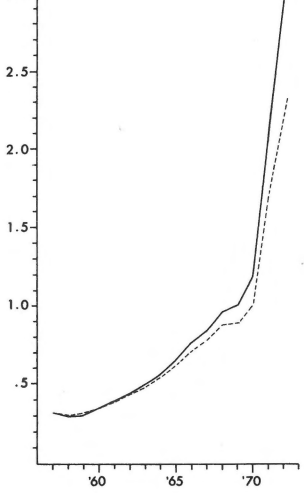
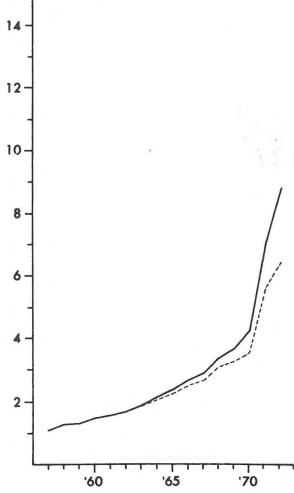
Government revenues per barrel of exports 1957-1973
in dollars per barrel.



Yearly exports of crude 1957-1972
in billion barrels.

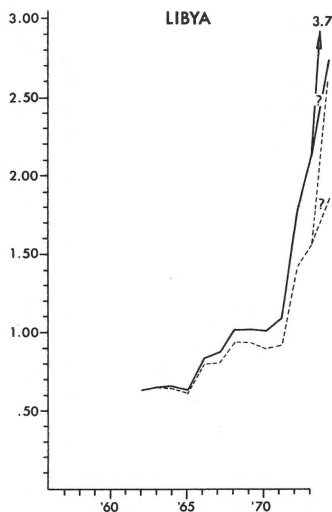
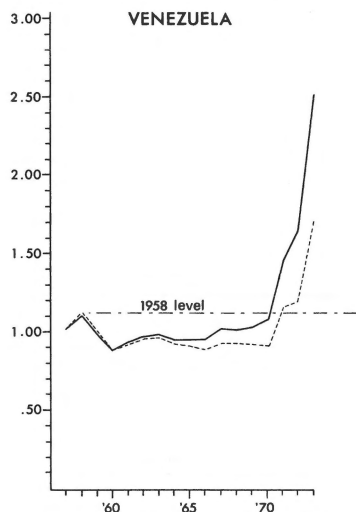


Yearly Government revenues 1957-1972
in billion dollars.

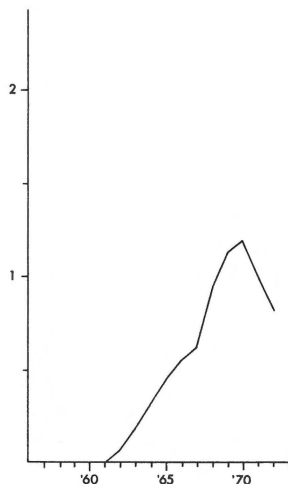
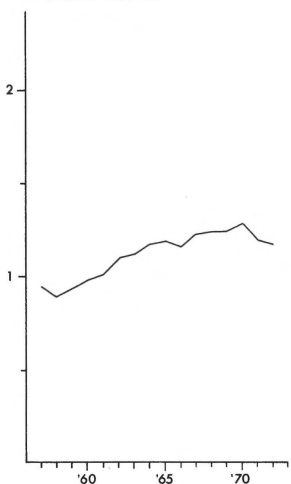


— current \$
- - - 1957 \$
Source: see tables

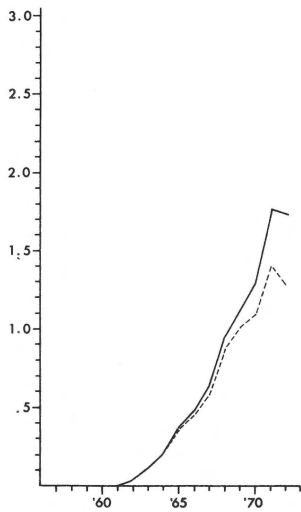
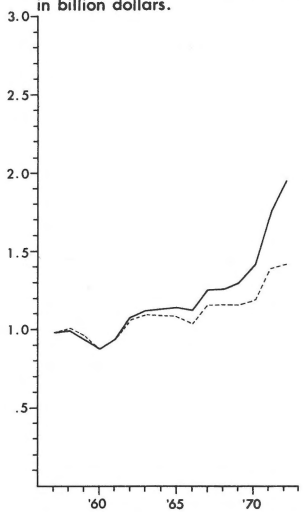
Government revenues per barrel of exports 1957-1973
in dollars per barrel.



Yearly exports of crude 1957-1972
in billion barrels.



Yearly Government revenues 1957-1972
in billion dollars.



— current \$
- - - 1957 \$
Source: see tables

August 1st, 1973, after Geneva II.

\$ 3.066 posted price
 \$ 1.798 government revenue per barrel for company
 oil (75%) calculated as above.
 \$ 1.349 company-oil (=0.75 x 1.798)
 \$.448 bridging-oil (= 0.1875 x \$ 2.388)
 \$.085 phase-in-oil (= 0.0375 x \$ 2.259)
 \$.064 state-oil (= 0.025 x 2.55, the assumed price)
 \$ 1.946 government revenue per barrel.

APPENDIX II

Calculation of August 1st, 1973 government revenues per barrel for Saudi Arabia, Libya and Venezuela

Assumption:

The production in 1973 of different crudes in each country is in the same ratio as in 1972. From this ratio, as derived from the International Petroleum Encyclopedia, 1973, a weighted average posted price is calculated. On the basis of this weighted average the government revenue per barrel is computed.

Saudi Arabia:

Posted prices according to PPS, August 1973.
 Weighted average posted price \$ 3.017/bbl.

\$ 3.017 posted price
 \$.110 production cost
 \$.377 12.5% royalty
 \$ 2.530 tax base

\$ 1.392 55% tax
 \$ 1.769 government revenue per barrel for company-oil
 \$ 1.326 company-oil (= 0.75 x \$ 1.769)
 \$.422 bridging oil (= 0.1875 x \$ 2.25) assumed
 \$.081 phase-in-oil (= 0.0375 x \$ 2.15) prices
 \$.059 state-oil (= 0.025 x \$ 2.35)
 \$ 1.888 government revenue per barrel

Venezuela:

Weighted average posted price \$ 3.779
 Freight premium \$ 0.535
 Total posted price \$ 4.314
 Assumed production cost \$.600
 16.66% royalty \$.719
 Tax base \$ 2.995
 60% tax \$ 1.797
 Government revenue per barrel \$ 2.516

Libya:

Weighted average posted price \$ 4.560
 Assumed production cost \$.300
 12.5% royalty \$.570
 Tax base \$ 3.690
 55% tax \$ 2.030
 Retro-active buy-out \$.104
 Government revenue per barrel \$ 2.704
 If the 51% nationalization takes place with a buyback price of \$ 4.90, the government revenue will be:
 0.49 x \$ 2.704 = \$ 1.325
 0.51 x \$ 4.900 = \$ 2.499
 Government revenue per barrel \$ 3.824

Government revenues in million \$, 1957-1972

	Middle East		Saudi Arabia		Venezuela		Libya		Index
	\$	1957 \$	\$	1957 \$	\$	1957 \$	\$	1957 \$	
1957	1.068	1.068	.323	.323	.968	.968	-	-	100
1958	1.278	1.291	.310	.313	.993	1.003	-	-	99
1959	1.294	1.320	.315	.321	.926	.945	-	-	98
1960	1.442	1.442	.355	.355	.877	.877	-	-	100
1961	1.502	1.487	.400	.396	.938	.929	3	3	101
1962	1.649	1.633	.451	.447	1.071	1.060	39	39	101
1963	1.861	1.825	.502	.492	1.106	1.084	.109	.107	102
1964	2.131	2.069	.561	.547	1.122	1.089	.197	.191	103
1965	2.342	2.230	.655	.624	1.135	1.081	.371	.353	105
1966	2.682	2.483	.777	.719	1.112	1.029	.476	.441	108
1967	2.898	2.659	.852	.782	1.254	1.150	.631	.579	109
1968	3.370	3.092	.966	.886	1.253	1.150	.952	.873	109
1969	3.666	3.273	1.008	.900	1.289	1.151	1.132	1.011	112
1970	4.214	3.541	1.200	1.008	1.406	1.182	1.295	1.088	119
1971	7.088	5.625	2.160	1.714	1.751	1.390	1.766	1.402	126
1972	8.827	6.443	3.113	2.272	1.941	1.417	1.728	1.261	138

Source: PPS, September, 1972

PIW, September 16th, 1968

Except:

1972: estimated by the author

Government revenues per barrel. 1957-1973

	Middle East		Saudi Arabia		Venezuela		Libya		Index
	\$	1957 \$	\$	1957 \$	\$	1957 \$	\$	1957 \$	
1957	.857	.857	.882	.882	1.030	1.030	—	—	100
1958	.848	.857	.817	.825	1.116	1.127	—	—	99
1959	.798	.814	.758	.773	.984	1.004	—	—	98
1960	.777	.777	.750	.750	.892	.892	—	—	100
1961	.758	.750	.755	.748	.929	.920	.627	.621	101
1962	.757	.750	.765	.757	.972	.962	.647	.641	101
1963	.777	.762	.787	.772	.986	.967	.651	.638	102
1964	.783	.760	.820	.796	.954	.926	.629	.611	103
1965	.795	.757	.832	.792	.956	.910	.838	.798	105
1966	.811	.751	.834	.772	.958	.887	.870	.806	108
1967	.822	.754	.848	.778	1.022	.938	1.016	.932	109
1968	.850	.780	.878	.806	1.014	.930	1.007	.924	109
1969	.843	.753	.871	.778	1.035	.924	1.000	.893	112
1970	.863	.725	.883	.742	1.092	.918	1.090	.916	119
1971	1.245	.988	1.266	1.005	1.462	1.116	1.786	1.417	126
1972	1.394	1.018	1.418	1.035	1.651	1.205	2.137	1.560	138
1973			1.888	1.284	2.516	1.712	2.704	1.839	147
							3.824	2.601	

Source: PPS, September 1972

PIW, September 16th, 1968

except:

1972: estimated by the author

1973: estimated by the author, see Appendix II. NOT a yearly average.

Yearly exports of crude 1957-1972
10⁹ bbl.

	Middle East	Saudi Arabia	Venezuela	Libya
1957	1.245	.366	.940	—
1958	1.508	.380	.890	—
1959	1.623	.416	.942	—
1960	1.860	.473	.983	—
1961	1.982	.530	1.010	5
1962	2.178	.589	1.102	60
1963	2.395	.638	1.122	167
1964	2.721	.685	1.176	314
1965	2.947	.787	1.187	443
1966	3.308	.932	1.161	547
1967	3.527	1.005	1.227	621
1968	3.973	1.099	1.235	945
1969	4.347	1.158	1.245	1.132
1970	4.884	1.359	1.288	1.188
1971	5.692	1.706	1.198	989
1972	6.332	2.195	1.176	809

Source: PPS, September 1972

PIW, September 16th, 1968

except:

1972: Production data from MEES, July 27th, 1973;

No compensation was made for domestic use.

LITERATURE

Fuad Rouhani (1971) — A history of O.P.E.C., Praeger Publishers, New York, Washington, London.

Zuhayr Mikdashi (1972) — The Community of Oil Exporting Countries, George Allen & Unwin Ltd., London.

M.A. Adelman (1972) — The World Petroleum Market, John Hopkins University Press, Baltimore and London.

J.L. Lafeber (1967) — The rise of Libya as an oil-producing country, University of Technology, Dept. of Mining Engineering, Delft, Netherlands, unpublished.

NOTES

Author's names refer to publications listed under Literature.

Abbreviations:

PPS : Petroleum Press Service

PIW : Petroleum Intelligence Weekly

MEES : Middle East Economic Survey

FNCB : First National City Bank.

(1) PPS, September 1973, pp. 345

(2) PPS, September 1962, and R o u h a n i, table 10, pp. 190

(3) Petroleum Times, June 29th, 1973

(4) R o u h a n i, pp. 79

(5) Energy Memo, FNCB, vol. IX no. 3, July 1973. See also note (20)

(6) Resolution IV. 32, published in PPS, August 1962.

See also speech delivered by Fuad Rouhani, then Secretary-General, at the 2nd Consultative Meeting of OPEC (Geneva, July 1st, 1963), as quoted by M i k d a s h i, p. 162

(7) V.N. Index of Exports of Manufactured Goods:

1957	100	1963	102	1969	112
1958	99	1964	103	1970	119
1959	98	1965	105	1971	126
1960	100	1966	108	1972	138
1961	101	1967	109	1973	147*
1962	101	1968	109		

All data from U.N. Statistical Yearbooks 1966 and 1971 and from U.N. Monthly Bulletin of Statistics, June 1973, except: * estimated by the author.

- (8) PPS, September 1966
 (9) M i k d a s h i, page 143
 (10) See Resolution IX.61, as reported in PPS, September 1965
 (11) M i k d a s h i, page 115, table 5.1
 (12) PIW, January 15th and 22nd, 1968:
 Marketing discount: 1967: 6½%; 1968: 5½%; 1969: 4½%;
 1970: 3½%; 1971: 2%; 1972 and thereafter: none.
 (13) PIW, January 15th, 1968
 (14) A d e l m a n, page 162 and table III-3
 (15) A d e l m a n, chapter IV
 (16) A d e l m a n, chapter IV(18)
 (17) A d e l m a n, page 191
 (18) A d e l m a n, page 183 and table VI-3
 (19) A d e l m a n, page 190 and table VI-6
 (20) Data from Energy Memo, FNCB, October 1969 and July 1973. 1957 data also from FNCB, as reported in PIW, November 11th, 1968.

These data refer to earnings and payments to governments by the seven major oil-companies in the total Eastern Hemisphere (excluding Communist Countries) and are therefore not specifically OPEC-oriented.

They are mentioned here only as an indication of the company-government profit-split.

	Take per barrel				Government
	Company				
	current \$	1957 \$	current \$	1957 \$	INDEX
1957	.771	.771	.781	.781	100
1958	.603	.609	.757	.765	99
1959	.584	.596	.765	.781	98
1960	.565	.565	.708	.708	100
1961	.543	.538	.700	.693	101
1962	.531	.526	.709	.702	101
1963	.563	.552	.751	.736	102
1964	.432	.419	.752	.730	103
1965	.418	.398	.764	.728	105
1966	.411	.381	.771	.714	108
1967	.370	.339	.799	.715	109
1968	.406	.372	.834	.765	109
1969	.362	.323	.839	.741	112
1970	.336	.282	.865	.727	119
1971	.341	.271	1.264	1.003	126
1972	.283	.205	1.341	.972	138

- (21) L a f e b e r
 (22) PIW, September 18th, 1972
 (23) L a f e b e r, pages 7 and 19
 (24) PIW, September 18th, 1972
 (25) M i k d a s h i, page 147
 (26) PIW, September 7th, 1970
 (27) PIW, October 12th, 1970
 (28) PIW, October 19th, 1970
 (29) PIW, August 27th, 1973, review of postings
 (30) PIW, December 14th, 1970
 (31) PIW, December 21 st, 1970
 (32) PIW, January 4th, 11th and 18th, 1971
 (33) PIW Supplement, February 22nd, 1971
 (34) PIW, February 22nd, 1971
 (35) PIW, April 12th, 1971 and J. Masseron in TOTAL Information, 1973, no. 54
 (36) PIW, May 3rd, 1971 and July 6th, 1971
 (37) Resolution 135, PIW, August 23rd, 1971
 (38) PIW, December 13th, 1971
 (39) PIW, December 27th, 1971

(40) PIW, January 31st, 1972. The countries are Belgium, France, Germany, Italy, Japan, Netherlands, Sweden, United Kingdom and Switzerland.

(41) PIW, January 1st, 1972

(42) PPS, February 1973

(43) PIW, December 25th, 1972 and January 1st, 1973. A rather complicated formula, the essence of which is the following:

The total expenditures in each year preceding the participation minus the tax-savings due to depreciation and amortization will be updated by means of a Middle East construction price index. The resulting amount times the participation percentage (0.25) will be paid by the governments within 30 days of the effective date. The amounts payable for each participation percentage increase will be calculated similarly and paid before December 31st preceding that increase.

(44) PIW, December 25th, 1972 and January 1st, 1973: Bridging oil:

first year: 75% of Basic Right (i.e. 25% of production)

second year: 50% of Basic Right

third year: 25% of Basic Right

Phase-in-oil:

quantities at request of the government, but not exceeding a certain stated percentage of the Basic Right for each year. For the first four years the countries have requested the maximum allowed percentage, i.e.

15% for the first year

30% for the second year

50% for the third year

70% for the fourth year

MEES, May 25th, 1973:

The price of the bridging oil is QWP plus a fixed amount per barrel, depending on the crude, QWP = quarterway price (i.e. quarter way between tax-paid-cost and posted price).

The price of phase-in-oil is tax-paid-cost plus a fixed amount per barrel, depending on the crude.

(45) Jamieson, Exxon's chairman, as quoted in PIW, November 20th, 1973. (The participation-agreement had been reached in principle already in New York at that time.)

(46) PIW, October 30th, 1972. This formula is based on tanker-rates for smaller ships (AFRA-LR 1) and increased progressively with higher freight-rates. This would especially become profitable for the government in 1973.

(47) PIW, June 11th, 1973

(48) PIW, June 11th, 1973. The currencies: Canadian and Australian

(49) PIW, March 5th, 1973; for official text, see PIW, July 23rd, 1973

(50) PIW, April 16th, 1973

(51) PIW, March 19th, 1973

(52) PIW, August 20th, 1973

(53) PIW, May 21st, 1973 and June 18th, 1973

(54) Intended as a "slap in the face" of the U.S.A. because of its support of Israël. PIW, June 18th, 1973

(55) PIW, August 13th and 20th, 1973, and September 10th, 1973

(56) For example, sale of "hot" (nationalized) Libyan Sarir crude at \$ 3.65/bbl, see PIW, August 27th, 1973

(57) PIW, September 17th, 1973

(58) Amongst others: Sir David Barran of Shell, as reported in PIW, February 22nd, 1971

(59) In an interview with Petroleum Times, June 29th, 1973 Dr. Khene stated:

"... I would stress that this level of taxation is still below of 1958, i.e. before the irresponsible cut-off in oil posted-prices..."

This statement is not true, even in constant money, unless a much faster climbing index is applied. Even the Middle East Construction Price Index used in the participation pacts, which

gives an index of 172 for 1972 as compared with 138 for the U.N. Index of Exports of Manufactured Goods (1957 = 100), shows a return in constant money to the 1957/58 high levels in

1972, after the Geneva I agreement, and an improvement on those levels afterwards.