LIBYA'S REVENUE FROM PETROLEUM*

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Today nearly everyone is aware that Libya is receiving substantial revenues from oil. However, the actual amounts, the revenue growth rate, the payments per barrel of oil and the manner in which company payments to the Government are calculated are not so widely known. In this paper I shall try to clarify these aspects of Libya's revenue from petroleum.

The Increase in Revenues

According to published information, total Government revenues from all sources and Government revenues from petroleum since 1955/56 have been as follows :

Government Fiscal Year	Total Revenue £L	Oil Revenue £L	Oil Revenue Percentage of Total
1955/56	13,331,000	51,000	. 4%
1956/57	18,126,000	62,000	.34%
1957/58	20,440,000	77,000	.37%
1958/59	16,952,000	91,000	.54%
1959/60	18,363,000	97,000	.53%
1960/61	22,356,000	115,000	.52%
1961/62	25,703,000	1,992,000	7.8 %
1962/63	36,027,000	7,190,000	20.0 %
1963/64	63,369,000	23,840,000	37.6 %
1964/65	86,020,000	54,719,000	63.6 %
1965/66	133,453,000	83,618,000	62.7 %
1966/67	190,926,000	141,861,000	74.3 %

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You will note that oil revenues were a negligible factor until the 1961/62 fiscal year. The seventeen-fold jump in oil revenues that year and the percentage increase from one half of one percent of total revenues to nearly 8% is explained, of course, by the beginning of Libyan production from Esso's Zelten field and exports from its terminal at Marsa el Brega which got under way in the fall of 1961.

The above chart brings into clear focus the importance of petroleum operations to the Libyan economy. If one also considers the fact that the amounts shown under "Oil Revenue" are limited to fees, rents, royalties, income tax and surtax paid by the companies operating in Libya under concession agreements, the percentage of Government revenues resulting from the petroleum sector of the economy can be seen to be even greater. This is true since general Government revenues have also soared because of company taxes paid by oil contracting and service companies and increased customs duties and employee income taxes paid by both concession holders and service companies. Thus, the overwhelming significance of oil is apparent.

For the purpose of this paper, I will limit my focus to the amounts paid to Government by concession holders in the form of rents, royalties, income taxes and surtax.

I would like to preface my remarks on the technical aspects of my subject by presenting another table of figures, the purpose of which is to show how Government's revenues have behaved as a function of each barrel of oil produced and exported. This is an important concept since it helps to filter out to a large degree the effects of increases in the volume of oil produced and exported and better illustrates the effect of the various changes which have occurred in the terms of the concession agreements between Government and the oil companies.

GOVERNMENT RECEIPTS

(in U.S. cents per barrel of exports)

Calendar Year	*Industry*
1962	64
1963	67
1964	64
1965	84
1966	90
1967	97 (est.)
*1968	101 (est.)

* for purposes of illustration, it is assumed that " OPEC allowances" continue to be completely eliminated for the entire year.

A quick glance at this receipts chart shows that, over a period of 6 years, Libya has increased its revenue per barrel of crude exported from 64 cents for 1962 to an estimated $ 1.01 in 1968, or over 55%. This is an industry average. Individual company's per barrel payments to government vary depending on costs, gravity of crude, etc. For example, Esso's per barrel payments to Government have consistently exceeded the industry average by 8 cents to 29 cents per barrel.

According to available statistics Libya's revenue per barrel of crude oil exported exceeds that of all the Middle East oil producing states. This is due mainly to its geographic advantage over Middle East crude relative to the European Market.

Sources of the Government's Oil Revenues

The oil companies operating in Libya do so under an agreement between themselves on the one hand and Government on the other. This agreement grants the companies the right to look for, drill, produce, transport, process, export and dispose of petroleum found in the Libyan subsoil within the concession area and further sets forth the rules under which operations are to be carried out and imposes certain obligations on the company.

One obligation specified in the granting clause is to pay Government certain specified sums of money under varying circumstances. For example, the first payment the company must make is a fee of £L 100 for each 100 square kilometers of the concession area. Thereafter, it must pay annual rentals, also measured by surface area. The rental increases with the passage of time.

When petroleum is found in commercial quantities the next logical move on the part of the company is of course to produce it, i.e. to drill oil wells and bring the hydrocarbons to the surface. When it does this it must pay a royalty to Government. What is a royalty ? Historically, the person who has wanted to explore for oil and who does not own the land under which he believes the oil exists has had to make a deal with the landowner, whether the landowner is a private citizen or a sovereign state. Under the deal he is given the right to look for and remove any oil he finds but, if he is lucky enough to find oil, he must pay the landowner a royalty. Theoretically, this is a portion of the oil produced—generally $\frac{1}{8}$ or $12\frac{1}{2}\%$. However, as a practical matter the landowner does not want the oil — he wants money. Thus, the oil producer in practice pays the landowner an agreed-upon amount of money for his $\frac{1}{8}$ of the oil. The landowner receives this amount without diminution by way of any costs. All costs are borne by the producer. The agreements between the oil companies and the Libyan Government follow this precedent. The Government has the right to take part or all of a $\frac{1}{8}$ portion of the oil produced in kind if it wishes. However, to date it has not seen fit to do so. Rather it receives revenues in the amount of $12\frac{1}{2}\%$ of the posted price of the crude oil produced less any oil used by the company in its operations.

Libya, however, is more than a landowner. It is also the political state within which the company performs its operations and, as such, it collects "tax" measured by the "profits" of the company. The oil companies in Libya actually pay two local taxes on profits. One is the ordinary income tax and the other is called a surtax. For simplicity, I will refer to both together as the "profits tax". This profits tax is the largest element of the total revenues received by Libya as a result of petroleum operations within its borders (amounting to some £L 125 million for calendar year 1966 operations).

Everyone is well aware of the term "income tax" or "profits tax". This is one of the main revenue raising measures employed by countries throughout the world. In its usually accepted definition, it is a percentage of the profits of a company. The company sells a product or a service for which it receives "gross revenue". From this it is permitted to deduct its operating costs plus an amount covering depreciation and amortization of capital expenditures. The resulting profit is subjected to a "tax rate" which varies from country to country. It could be 10%, 30%, 50%. The Government receives this tax without any obligation to bear any of the operating costs of the company or any of its capital expenditures. All risk is on the company. If the company its capital expenditures. All risk is on the company. If the company loses money in any year the Government does not receive a tax for that year but it does not have to bear any part of the loss either.

As previously mentioned, the agreements between the oil companies and the Libyan Government call for the companies to pay such a profits tax. The rate is 50%. Thus the familiar phrase "Fifty-fifty"—fifty percent to the Government, fifty percent to the oil company.

The Changes in Taxing Provisions

Now let us analyze some of the reasons why this combination of fees, rents, royalties and profits tax grew from 64 cents a barrel in 1962 to an estimated $1.01 per barrel in 1968.

When the Libyan petroleum law was issued in April of 1955, it followed the general pattern I previously described. It embodied provisions the purpose of which was to encourage companies to apply for oil concessions in Libya. It was obviously successful since 47 concessions were granted in late 1955 and early 1956 (grants since 1956 have increased the number to 125).

The fiscal provisions of the 1955 concession agreements were relatively liberal. The fee for each concession was a flat £L 500. Surface rents were relatively inconsequential for the first 15 years and, during the entire life of the concession, never rose above £L. 2,500 per 100 square kilometers. Royalty of $12^1/_2\%$ was calculated on a market value of the oil at the wellhead (there was no provision for a "posted price" in the law). Fees, rents, royalties and taxes were a direct offset against the 50% profits tax. In computing the profits tax the company's gross income was equal to whatever it sold its oil for. Deductions from gross income to arrive at taxable profits were :

a. operating expenses and losses ;

b. amortization of capital expenditure on physical assets at any rate not exceeding 20% per annum where the expenditure was incurred prior to commencement of commercial exports and 10% if incurred thereafter; and

c. a "depletion" allowance equal to 25% of the gross income from sales of petroleum less handling charges and transportation costs from the well to the terminal; or in lieu, amortization of all capital expenditures on other than physical assets at the rate of 20% per annum where the expenditure was incurred prior to commencement of commercial exports and 5% if incurred thereafter.

Elections or choices available to the company to treat specific expenditures as capital or as current expenses were not binding in future years, i.e. the company could capitalize an expenditure in 1955 and expense a similar expenditure incurred in 1956. If the company's operations produced a net loss, this could be carried forward and deducted against profits of subsequent years up to a maximum of 10 years regardless of whether the loss occurred before or after commencement of commercial exports.

I believe that Esso is the only company which commenced commercial exports under the 1955 law. While we started exporting in

September 1961, our concession agreements were amended with effect from July 7, 1962. The 1962 amendments removed or reduced the benefits of many of the above provisions. Surface rents were increased from the 16th year onward.

In 1970, the rentals on the first concessions granted will increase to £L 3,500 per 100 square kilometers and in 1975 to £L 5,000 per 100 square kilometers. These amounts can be significant when viewed in terms of non-productive concessions. Rents are not terribly significant in relation to producing concessions since any rent paid merely reduces the royalty. This is in accord with prevailing practice; the landowner receives rental up to the time of production and royalty thereafter. Royalty is not added to rentals.

In 1962, the posted price concept was introduced into the concession agreements. Historically, this was a price "posted" or "published" by a refiner at which he agreed to purchase crude oil offered to him by producers. In the Middle East it became the price at which a producer offered to sell his crude oil to purchasers. Generally the term is defined in the agreements between the companies and the government.

As introduced into the agreements "posted price" had two important effects. First, it became the value upon which royalty was to be calculated. Second, the concept of posted price was introduced into the profits tax provisions of the law. Previously, gross income was defined as the "income of the company." After the 1961 amendments, for crude oil export purposes, it was defined as "posted price... less marketing expenses". Discounts off posted price were common, because of the highly competitive nature of the oil industry and the inability of the exporting companies to sell crude oil for the posted price. These discounts were described as "marketing expenses" and the gross income of the companies was calculated after giving effect to them.

The immediate impact of the 1962 amendments occured in the following areas :

1. the depletion allowance was eliminated ;
2. losses and expenses incurred prior to the commencement of commercial exports could not be carried forward against profits of the available year but were to be recouped over 10 or 20 years depending on the nature of the expenditure;
3. depreciation and amortization rates were established at 10% and 5% whether or not the applicable expenditures occurred before or after commencement of commercial exports;
4. Only operating expenses and overheads as defined in petroleum regulations were deductible ;
5. only direct taxes were creditable against profits taxes (direct taxes as defined in petroleum regulations are taxes imposed on the income, properties or operations of the company which are paid by and borne by the company);
6. elections to expense or capitalize certain costs, once made by the company, would be binding for future years;
7. certain items were specifically declared to be non-deductible such as foreign taxes, specified penalties, interest and organization expenditures.

Although the 1955 provisions were never effectively applied it would be interesting to pose a hypothetical case to see what effect the 1962 amendments would have had on per barrel Government revenues.

Let us assume the oil is 40° A.P.I with a posted price of \$ 2.23 per barrel and which in fact cannot be sold in the export market for more than \$ 1.75 per barrel. Handling and transportation costs from well to terminal are 5 U.S. cents per barrel. Operating costs and depreciation amount to 50 cents per barrel. (for simplicity, no effect has been given to any reduction in the depreciation rate.)

We will eliminate any effect of the 1955 loss carry-forward provisions, but we should remember that these could have eliminated profits for a few years after commencement of commercial exports.

Comparative Government Per Barrel Revenues In U.S. Dollars and Cents for 1955 and 1962

	1955	1962
Posted price	—	2.23
Prevailing Discounts or Marketing expenses	—	.48
Sales realizations	1.75	1.75
Less :		
Depletion (see below)	.43	—
Operating costs + depreciation	.50	.50
	.82	1.25
50% Tax	.41	.625
Less :		
Royalty already paid	.21	.280
Profit tax	.20	.345
Total Government revenue (royalty plus profits tax)	.41	.625

Depletion calculation :	
Sales proceeds	1.75
Transportation and handling costs	.05
	1.70
25% Thereof	.425

Thus it can be seen from the example in the above chart that the Government per barrel revenues in 1962 are about 50% greater than they would have been under the provisions of the original 1955 law.

In 1965 significant amendments to the concession agreements were introduced. These amendments provided for :

1. expensing "royalties" on exported crude oil, and

2. changing the profits tax base from actual sales realizations to a minimum receipts obligation.

We can recall from the previous example that after computing 50% of net profits we subtracted the royalty, which amounted to 28 U.S. Cents in 1962 ($12\frac{1}{2}$% of the posted price of \$ 2.23). This is what we mean when we refer to "crediting" the royalty.

Commencing in 1956, however, the agreement with the government required that an amount similar to royalty not be "credited" but be deducted from income to arrive at profits — thus the "royalty" is "expensed". The effect is to increase profits taxes by 50% of such "royalty" or, in our example, about 14 cents per barrel.

A further effect in Libya of applying the 1965 amendments was opposite to the effect of their application in the Middle East countries. There the companies had been traditionally paying taxes on posted price. You will recall that this was not the case in Libya where the companies were reporting posted price less marketing expenses including discounts or rebates. When the Middle East governments urged royalty expensing, the companies operating there agreed to it, provided some recognition was given to the level of prevailing discounts. This was done by the introduction of the so-called OPEC formula and therefore in the Middle East, while there was an increase in Government revenue because of royalty expensing, it was partially offset because lower gross income was reported for tax purposes. In Libya, however, companies granting substantial discounts were compelled by their acceptance of the formula to increase the amount reported as gross income for tax purposes, which therefore acted cumulatively with "royalty" expensing to increase Libyan Government income.

How does the formula contained in the 1965 amendments work in Libya ? Under the Petroleum Law the companies would not fall below an established floor.

Here is how it operates. The company's receipts for each barrel of crude exported must, by agreement, be not less than the applicable posted prices less

i. a marketing allowance of $^{1}/_{2}$ U.S. cent and

ii. an "allowance".

The maximum "allowance" for 1965 was $7\frac{1}{2}\%$ of posted price plus a gravity differential equal to .13235 U.S. Cents multiplied by the number of degrees of API gravity by which the crude oil exceeds 27° API. (Esso's crude exports usually average 40° API. Thus, our oil exceeds 27° API by 13°.) For 1966 the maximum allowance was reduced to 6 $^{1}/_{2}\%$ of posted price plus .26470 U.S. Cents multiplied by, in Esso's case, 13. In 1966 Esso's allowance was approximately 17.9 cents per barrel and our minimum receipts obligation was, therefore, $ 2.046 per barrel ($ 2.23 posted price less the 17.9 cents allowance and the $^{1}/_{2}$ cent marketing allowance.)

According to the concession agreements any reduction in the rate of the allowance for a year, or years, after 1966 is to be made in the light of the competitive, economic and market situation of Libyan crude oil expected to prevail during the then reasonably foreseeable future as compared with the competitive, economic and market situation of such crude in the year the concession agreement was amended. The companies agreed to eliminate the allowance when and if such action is justified by changes in the competitive, economic and marketing conditions. The authority to make this decision rests with the companies. Let us now compare the result in our prior example with the result in 1966 using the same assumptions.

Comparative Government Per Barrel Revenues
In U.S. Dollars and Cents for 1962 and 1966.

	1962	1966
Posted price	2.23	2.23
Percentage allowance	—	.179
Marketing allowance	—	.005
Prevailing discounts or Marketing expenses	.48	—
Realized price or OPEC minimum receipt	1.75	2.046
Less :		
Operating costs & depreciation (.50) +	.50	.50
"royalty" expensed (.28)	—	.28
Taxable Profit	1.25	1.26
50% Tax	.625	.633
Royalty credited	.28	—
	.345	.633
Total Government revenue		
Royalty	.28	.28
Profits tax	.345	.633
Net per barrel	.625	.913

From the foregoing it can be seen that a significant result of the 1965 agreement was to greatly increase the percentage of net profits going to the Government. Although the financial arrangement is still commonly referred to as the 50/50 formula, the Government actually receives between 55 and 60, calculated on the basis of the minimum receipts obligation. The companies' actual net profit is even further reduced to the extent that its oil cannot be sold in the export market for a price as high as the minimum receipts obligation.

The latest chapter in our story was written in November 1967 when the companies, commencing with effect from July 4, 1967, temporarily eliminated the percentage allowance in its entirety in light of the extraordinary circumstances following the June crisis. This action was taken by the companies within the framework of the existing concession agreements and resulted in an increase in Government revenues of about 9 cents per barrel as follows :

Posted price	2.23
Percentage Allowance	—
1/2 cent Marketing Allowance	.005
OPEC minimum receipt	2.225
Operating costs and depreciation	.50
"Royalty"	.28
Taxable Profit	1.445
50% Tax	.722
Royalty	.28
Total Government revenue	1.002

Conclusion :

The above is a brief resume of the historical development of petroleum revenues in Libya. It has been a remarkable history. In six years gross petroleum revenues have grown from virtually nothing to hundreds of millions of pounds, due mostly to dramatic increases in crude oil production and exports. At the same time, and contributing to the whole, there has been an increase in per barrel revenues of U.S. cents 37,9 ; this is, of course, attributable to the temporary elimination of the percentage allowance presently in effect. At a production rate of 2.3 million barrels a day, or 840 million barrels a year, this amounts to over £L. 100 million per year.

What the future holds is difficult to foretell. While at first glance it would appear in the interests of Government to increase its receipts per barrel, we should all be mindful that the largest part of the past growth has come from increases in crude oil production and exports. The companies have been and continue to be spurred to vigorous exploration and production activity because the investment opportunities in Libya have been favorable when compared to opportunities elsewhere. The problem we will all be concerned with in the future is to ensure a tax rate which provides the Government with its fair share of the profits per barrel of oil, and continues to make the return on capital attractive to the investor, for investment capital will always gravitate to areas where the return is attractive when viewed in relation to the risks assumed.