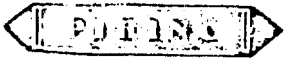

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CHANGING STRUCTURES IN THE WORLD OIL MARKET

by

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The assigned subject of my talk is the changing structure of the world oil industry. The problem with this subject is its scope. For, as we all know, the world oil industry has been undergoing a continuous series of radical transformations ever since the beginning of the OPEC revolution in October 1973, and there is no sign yet that they have come to an end. Radical changes are of course the essence of successful revolutions. In the OPEC revolution one of the aims was a transfer of power from the major international oil companies to the governments of the producing countries. A large part of this transfer was successfully accomplished in what might be called the first phase of the OPEC revolution which ended in December 1978. During that period most of the decision-making power which foreign companies had exercised over the oil production of OPEC members since before World War II was taken from them by one means or another. The most radical was of course full scale nationalization which completely ended the role of the concessionaire companies. Five of OPEC's 13 members (Iran, Iraq, Kuwait, Algeria and Venezuela) chose this route.

In those OPEC countries where the majors, as well as other foreign companies, still operate they have lost the power to post prices, to set production levels, to determine productive capacity and to decide when and where to engage in exploration activities. By the mid-1970's all of these functions had been transferred to the countries' national oil companies or some other state agency. The international oil companies thus took on the new, unaccustomed role of oil offtakers, contractors and technical consultants, in

one form or another, in most OPEC countries including those that had nationalized their oil industry.

The majors adapted surprisingly well to these new functions which were so different from the traditional, if grossly distorted, image of the all-powerful multinational corporation which dictated its host country's oil policy and made the decisions stick.

The reason for this ready adaptation was of course that the majors needed continuing access to OPEC oil and were willing to accept OPEC's terms if they had to. The OPEC nations, on their part, were willing to continue to dispose of the bulk of their oil for the time being through the majors because they were not yet ready to face the rough competitive winds of the international oil business without secure market outlets, particularly in the 1974-78 period which was characterized by an almost continuous world oil surplus, i.e. more oil was available than was required, with the OPEC nations carrying the excess capacity.

There is no doubt that all OPEC nations believed then, as they do now, that gaining control over their oil production required an expansion of direct sales and a reduction of sales to their erstwhile concessionaires. But market conditions apparently restrained their ambitions in this regard. Consequently the 7 major international oil companies' access to OPEC crude oil was reduced much less than their role in producing it. Thus, in 1978 they still took about 55% of OPEC's total oil output, most of it on a preferential contractual basis. This was a significant drop--nearly 5.5 million B/D--

from the 70% share these companies had in 1973 and a clear indication of OPEC's intentions. Nevertheless, 5 years after the OPEC revolution, one of whose principal aims was to reduce reliance and dependence on the majors, they were still by far the largest offtakers and distributors of OPEC oil.

Despite outstanding success in bringing on new production in Alaska and the North Sea during this period (1973-78), the 7 majors were not able to offset the loss in access to OPEC crude, largely because most of them had declining production in the U.S. "lower 48" states. Thus, the 7 companies' collective access to total non-communist world production dropped steadily since 1974:

	GROSS OIL AVAILABILITY, 7 INTERNATIONAL MAJORS	NON-COMMUNIST WORLD CRUDE OIL PRODUCTION	RATIO
	(1)	(2)	(1)/(2)
	(Million B/D)		
1973	30.9	48.2	64%
1974	30.4	47.6	64
1975	24.9	43.8	57
1976	25.7	47.4	54
1977	25.2	49.4	51
1978	24.2	48.9	49
1979	23.3	50.6	46

A consequence of this decline in crude oil availability even prior to 1979 has been the reduction in the group's oil self-sufficiency ratio, that is the relationship between the volume of oil they run through their integrated refineries and the volume they have access to through controlled production plus contract and spot market purchases. Obviously, as I have defined it, this ratio can never fall below one, since the companies will always have access to at least as much oil as they actually run in their refineries.

But historically their collective ratio has substantially exceeded one, because their access to oil has been well above their own integrated crude requirements, as the following figures show:

SEVEN MAJOR INTERNATIONAL OIL COMPANIES

	PERCENTAGE OF AVAILABLE OIL ABOVE INTEGRATED REFINERY REQUIREMENTS (%)
1973	33
1974	42
1975	32
1976	33
1977	29
1978	24
1979	18

It was this excess over internal oil requirements which put the international majors into their unique position of third-party crude suppliers to the rest of the world oil industry. This was an important function and responsibility under the pre-1974 ancien régime and though the volume available for this purpose has declined since 1974, even in 1978 the group still had access to nearly 5 million B/D more oil than its integrated requirements.

Now let us look at the events since 1978. There is no need at this point to go into the reasons for the world oil shortage which occurred in 1979 and kept pushing up spot prices throughout the year and contract prices beyond it into 1980. Obviously, the OPEC nations saw the abrupt turnaround in the supply situation between 1978 and 1979 as an opportunity to advance their aim to futher

curtail the role of the majors by increasing OPEC's direct sales. Consequently, throughout the year the majors had their access to OPEC oil supplies reduced. By the fourth quarter of 1979 it was down to 40-45%, compared to 55% in 1978, and by April 1980 it probably was no more than one-third of OPEC's output. Most of the decline came in the form of reduced contract volumes. One--BP's loss of all Nigerian crude--was a political action which was, however, probably related to the extraordinary upward push in the demand for African sweet crude at the time. Altogether, the majors lost access to an estimated 6-7 million B/D of OPEC crude between 1978 and now.

The logical consequence of this development was that all international majors have either reduced or ended their third-party crude oil sales, causing supply dislocations throughout the world oil industry. Indeed, the continuation of last year's supply crisis well after Iranian oil exports had returned to a substantial level was in part due to this dislocation. It greatly increased the number of companies competing for oil from the same suppliers, thereby driving prices up further. It also caused many of the former third-party buyers to try to increase their inventory reserves, since their formerly secure suppliers--multinational companies with widely dispersed crude oil sources--had suddenly been replaced by unfamiliar, new sources, perceived as far less secure, whose contracts, if any, were not legally enforceable because of the sovereign status of the contracting party. Thus, an important

operating factor in last year's violent world oil market upheaval was the forced, drastic reduction in the international majors' third party sales which until then had been considered a solid rock in the international oil business.

Though several of the majors were able to increase production outside OPEC, in no case was this enough to offset their loss of OPEC oil. Currently, only two of the seven companies still have any significant excess crude oil supplies at their disposal. A sign of the magnitude of this development is that BP, whose worldwide crude oil surplus historically was the largest of the seven, now has a 19% crude oil deficit which it must meet through open market purchases, according to a recent estimate in Petroleum Intelligence Weekly. Another sign is that the share of Japan's crude oil imports traditionally supplied by major oil companies has dropped from about half of the total in the 1976-78 period to 10 percent in the last quarter of 1979 and can be expected to drop further in 1980, according to an industry study.

Where did the OPEC oil lost by the majors go? It was largely sold by OPEC state oil companies to foreign customers either directly or within the framework of bilateral agreements between OPEC countries and consuming countries. Both these types of sales have increased rapidly in the last several years. According to one recent study, world-wide bilateral government oil sales agreements and sales by government oil companies to commercial buyers amounted

each to somewhat less than 1.5 million B/D in 1975. By the last quarter of last year the first of these categories had grown to 5 million B/D and the second to nearly 8 million B/D. Of course, this includes not only OPEC but also other oil exporters including Mexico, a newcomer to oil exports all of whose sales are made by a government company.

So far, I have treated all 7 major internationals as one homogenous group. While this was reasonable historically, it is no longer so. Today these companies fall into two groups: the 4 Aramco shareholders and the 3 others. The difference was not significant as long as the 3 others had full access to oil in Iran, Iraq, Kuwait, Venezuela, Nigeria, etc. and as long as OPEC prices were more or less in line with those for Saudi Arabian crude. Both of these conditions have ceased to exist since 1979. While Saudi Arabia has apparently somewhat reduced the amount of oil made available to Aramco shareholders, they still have access to about 7 million B/D of Saudi oil (nearly a quarter of OPEC's total production) at official sales prices which have been well below those of all other OPEC members since mid-1979. There is no question that this has been of great benefit to the Aramco shareholders for whom, collectively, Saudi Arabia provided some 60% of their total non-U.S. oil supplies last year. It has significantly contributed to the shareholders' earnings and has enabled them to sell their products at relatively lower prices, to the benefit of consumers and

the dismay of competitors, particularly since the reappearance of an oil surplus at the beginning of 1980.

However, the general trend towards bypassing the majors by increasing direct sales by the government oil agency is clearly evident in Saudi Arabia, too. Petromin's crude oil export commitments have, in fact, soared during 1979 and are currently 1.5-1.8 million B/D, compared to 0.5-0.7 million B/D in 1978. In addition, domestic demand in Saudi Arabia is also increasing sharply. Part of Petromin's increased requirements is coming out of incremental production and part out of reductions in Aramco's share. The price differential between Saudi and other OPEC crude is unlikely to be maintained much longer, since it makes no economic or political sense for the Saudis to underprice other OPEC members on a long term basis. Thus, the Aramco shareholders' price advantage is probably short-lived. But long term availability of large volumes of Saudi oil to Aramco seems much more secure than most other OPEC supplies to the international majors.

In conclusion I would like to say that the restructuring of the world oil industry is by no means complete. But the direction it will take is now evident. The share of oil sold directly by state oil companies will continue to increase throughout the world while the access of international oil companies to oil supplies over and above their integrated needs will decline. In fact, most of the internationals will have become net oil buyers within the next couple

of years. Thus, the role of the state companies will expand at the expense of the seven majors, as has been the case for the last 6 years.

However, the majors will still be around and strong by the end of this century. They will continue to process a substantial share of the non-communist world's crude oil (last year they accounted for 40% of total world refining capacity) and distribute the products. They will also be in the forefront of new oil discoveries outside of OPEC. But the rising star in the world oil market is now the national oil company and most crude oil buyers will have to look to it, and accept its terms, to obtain future supplies.

These terms are likely to include more than just cash payments. In Saudi Arabia, for instance, the Aramco shareholders as well as new entrants are endeavoring to obtain additional crude oil in return for constructing and operating oil refining and petrochemical plants for the export market in partnership with the Saudi government. In Algeria, the government is asking a $3/bbl premium on its official oil export price which, however, can be applied against investment in local exploration activities. Libya, too, has made it known that a foreign company's access to additional crude oil may depend on its willingness to engage in exploration. Venezuela seems to be interested in procuring steady outlets for the very heavy crudes from its existing production and, even more, from the potentially gigantic Orinoco Oil Belt. Mexico also can be expected to show a growing interest in

disposing of its heavy oil, as the share of this type of crude in total Mexican production increases.

Thus, willingness and ability to pay OPEC's prices may no longer be enough to obtain its crudes on a secure basis. Future crude buyers will increasingly have to contribute to the producing country's real or perceived long-term interests to have access to its oil. For most non-major oil companies this will be a basic change from the past.