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THE OUTLOOK FOR PETROLEUM TO 1980

Comments Presented To

THE NATIONAL INDUSTRIAL CONFERENCE BOARD'S

CONFERENCE ON ENERGY OUTLOOK: THE NEXT TWO YEARS

by

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December 7,1977

Although the theme of this conference is the next two years, I am stretching my presentation a bit to include the year 1980. Throughout this period our attitude towards oil will be determined both by the forecast shortage of supply and by the existing surplus. We have lived with this dichotomy between the evidence of the present and the projection of the future since the end of the Arab oil boycott in the spring of 1974. It has not made life easy for the shortage forecasters but it has, of course, not disproved their predictions about the mid or late 1980's or the early 1990's. However, the forecasts of 2 or 3 years ago that a world oil shortage might appear by 1980 or shortly thereafter can now be dismissed as at least premature.

Naturally, the surplus could turn into a shortage at any moment as a result of a major political or military supply interruption. In the present precarious Middle East situation this is obviously a real possibility. But for the purpose of our economic analysis we have assumed that no such extraneous event will affect oil supplies in the next three years.

Since I have mentioned a continuing world oil surplus during this period, let me start my analysis by defining the term surplus: It is simply the volume of oil above actual needs which is readily available and obtainable at prevailing prices. Most of the existing surplus is of course in the hands of OPEC members. Currently it amounts to some 6-7 million b/d, depending on the assumption of maximum allowable or

feasible production in the various OPEC members. This would be equal to 20-23% of OPEC's average crude production in 1977, or 13-15% of total non-Communist world production this year.

As I said before, I do not believe this surplus will be substantially reduced over the next three years. The reasons are to be found on the supply and the demand side. So, let us look at both, first in the U.S. and then in the rest of the world, for this period.

U.S. oil demand this year will have risen by about 7%. This follows an increase of nearly that much in 1976. These increases may give the impression of a profligate, wasteful public using oil unconcerned about the finite nature of the product. The impression may be true. There is no indication that the American public is buying less oil than it can afford at present prices, out of concern over future resource shortage. However, the reason for this year's sharp increase in demand is not an ever increasing oil thirst by the American public but the need for fuel to run the American industrial establishment. Accordingly, the increase in total oil demand was accounted for primarily by residual fuel oil and distillate fuel oil, mostly for industrial and commercial purposes. Demand for these two products will have risen by about 12 percent this year. By contrast, gasoline demand will have risen by only about 3%.

The reason for the high increases in the industrial demand for oil lies partly in our relatively high GNP growth rate this year, but more importantly in the continuing decline in the current and projected availability of natural gas to industrial users, causing a switch of major proportions from gas to oil in the industrial and electric utility

fuel markets. Thus, if oil demand this year had risen at a significantly lower rate than it did, our GNP would have had to be reduced accordingly. Incidentally, this relationship between the GNP growth rate and oil demand will be one of the key problems facing the Administration in implementing its new energy policy.

Over the next three years we expect gasoline demand to rise at a still slower annual rate than this year's 3%. This will of course be due primarily to the more efficient fuel utilization in new automobiles -- partly mandated and partly for competitive reasons. The result is likely to be a gasoline demand of about 7.5 million b/d in 1980, compared to this year's 7.2 million b/d, an increase of only about 4% over the three year period.

Distillate and residual fuel oil, by contrast, will increase substantially faster during this period, by about ~~7.5%~~ 15.0% from 1977 to 1980. This is of course much less than this year's growth of ~~12%~~ 10.5%, reflecting both a likely slower general economic growth rate in the next three years and an expected slowing down in the switch from gas to oil in the industrial and utility markets. It is interesting to point out in this connection that after three years of uninterrupted decline, U.S. gas production this year will be about even with last year's while gas imports will be somewhat higher, increasing total gas supplies by about 1%. This does not mean a turn-around in the U.S. gas situation, but with growing volumes of imports, the rate of the decline could be quite moderate in the next few years. Much will of course depend on the action, or lack of action, by Congress and the Administration on the gas price issue. If no legislation is passed and the price for new gas remains at its current level of $1.46/Mcf, domestic production will decline quite

rapidly in the near term future. If on the other hand a true compromise can be reached on new gas, which would require a price above $2.00/Mcf, producers are likely to make a maximum effort to bring on new gas from known and prospective strutures. This, together with increased gas imports, could maintain U.S. gas supplies near last year's level for the next two or three years.

Returning to the question of U.S. oil demand by 1980, we see a demand level of 20.0-20.2 million b/d, compared to this year's level of 18.5 MM b/d. This would mean an 8-9% increase in the next three years. By way of comparison, in the three year period ending this year, the increase in oil demand was about 11.5%.

There is sufficient U.S. refining capacity to meet this demand but it will require a very high level of capacity utilization from next year on. By 1980 utilization could be at 95-96% of input capacity, compared to 91% this year. Even with this high utilization rate, imports of residual fuel oil are likely to increase significantly but imports of other products should do so only slightly, at least through 1979.

Total U.S. oil imports, that is crude oil and products, will increase only moderately from this year's level of 8.6 MM b/d. By 1980 they may be 8-10% higher, or 9.3-9.5 MM b/d. By comparison, this year's imports will be 18-19% above last year's. It should be pointed out that our 1980 estimate applies only to imports for consumption. An additional 300,000-400,000 b/d are scheduled to be imported in that year to fill our Strategic Petroleum Reserve to its targeted level of 500 million barrels. In 1978 the volume could be as high as 650,000 b/d to meet the year-end target of 250 million barrels.

The reason for the projected slow-down in the growth in oil imports for consumption lies not only in the expected slower demand growth but also in the reversal of the seven year decline in domestic production, starting late this year. This is of course due to the onset of production in Northern Alaska which will rise from this year's average level of 300,000 b/d to 1.1 million next year and 1.5-1.6 million b/d in 1980. Over the next three years this will more than offset the expected production decline of 600,000-700,000 b/d in the lower 48 states.

Now for a quick look abroad to see whether an import level of 9.5-10.0 MM b/d would be available from foreign sources. European oil demand this year will be about flat or at the most 1%-1.5% above a year ago. The reason lies partly in Europe's continued slow economic activity and partly in the increase of natural gas supplies, particularly in the U.K. where gas supplies this year will have increased by over 5%, compared to an increase of less than 2% in total energy demand. Gas imports from the Soviet Union and Algeria into Western Europe are also on the rise. Thus, at the moment European oil demand is influenced by the opposite set of factors than those affecting U.S. demand. While our GNP has been rising rapidly and our gas supplies have been declining, in Europe just the reverse is true.

With Japan's oil demand expected to rise by less than 5%, total non-Communist world oil demand this year will grow by about 4%, which would be substantially below last year's growth. Next year, with U.S. demand rising at only about half of this year's rate and European demand showing little change from this year's, and for the same reasons, world

oil demand may grow by only about 3.5% and by 1980 the growth rate may be down to 3%, as gas, nuclear power and coal continue to grow more rapidly than total energy demand, thereby reducing oil's share in the energy mix.

On the oil supply side the next three years will show a sharp increase in non-OPEC oil, particularly from Alaska, already mentioned, as well as the North Sea and Mexico. Thus, nearly 70% of the increase in world oil demand will be supplied from non-OPEC sources during this period. The demand for OPEC oil will increase by only 1.6-1.8 million b/d, or about 7%. Consequently, OPEC's surplus producing capacity will be only slightly reduced from its present level by 1980. However, OPEC's principal producer, Saudi Arabia, may be required to produce somewhat more than the 8.5* million b/d ceiling it had adopted prior to 1977 and which, according to some reports, it may want to reinstate. By 1980, requirements for Saudi Arabian oil may be about 9 million b/d. However, since this is no more than is actually being produced this year, the Saudis may not oppose such a level three years from now, if it is required.

On the international price front, every one is of course eagerly awaiting the outcome of the Caracas Conference which is supposed to open on December 20. Trying to best-guess OPEC can be an ungrateful task, as those who have tried it have learned. The most that can be said is that, on the basis of the best available information it appears, as of now, that the official price for Saudi Arabian light crude, OPEC's marker crude, is likely to be increased only modestly, if at all, in

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* Excluding NGL's and its share in the neutral zone.

Caracas. A two-step increase or a postponement of any increase to a later date is also possible. In real terms, considering both the world inflation rate and the decline of the dollar in 1977, the OPEC marker price is likely to drop somewhat in 1978, since a price increase of at least 8.5% would be required to offset these two factors. A decision for a price freeze, or only a very modest increase, could possibly recreate disunity within OPEC, since all members other than Saudi Arabia, Iran, Qatar and the United Arab Emirates seem opposed to it. As a compromise, Saudi Arabia may, formally or informally, agree on a temporary production ceiling to help contain the surplus and the resulting price discounts. There is some feeling among OPEC watchers that the Shah of Iran's support of Saudi Arabia's opposition to any price increase in 1978 is partly based on this assumption. The African members of OPEC may also <u>try</u> to agree on some form of joint production control to avoid underselling each other and driving their already weakened prices for low sulfur crude down further.

Thus, looking at the U.S. and the global oil picture over the next three years, the growth in oil demand will slow down while oil supplies outside OPEC will rise sharply and OPEC itself will continue to have substantial excess producing capacity, resulting in a real price decline at least next year. Obviously, none of these prospects are cause for great anxiety. The question is whether these three years are the calm before the storm or the onset of a new climate that will render the storm unlikely. The Shah is reportedly convinced of the former. He sees

market forces pushing world oil prices up much faster from 1980 on than OPEC would be able to do on its own. Energy Secretary Schlessinger sees a similar scenario occurring only two or three years later. A few of the international majors, however, are beginning to reflect in their latest projections the possibility that the present slow growth in world oil demand may continue, or even accelerate, into the 1980's, thus once again postponing the heralded date of the world oil shortage.