



Telephone: (212) 867-0052

Petroleum Industry Research Foundation, Inc.

122 EAST 42nd STREET

New York, N. Y. 10168

FREE MARKET VS. OPEC

**Some Key Factors in the
Near-Term U.S. and World Petroleum Outlook**

**Statement before the
Committee on Energy and Natural Resources**

of the

United States Senate

by

**John H. Lichtblau
President**

March 14, 1986

If the effectiveness of a cartel can be measured by the difference between the cartel price and the market price for the commodity the cartel controls, OPEC was a rousing success until last December when it effectively ended its control by a de facto suspension of its production ceiling in the face of declining demand. But the \$12-13/Bbl price drop between the last quarter of last year and the first quarter of this year reflects the shift in price determination from cartel administration to market forces. The drop occurred despite the fact that the operation of market forces is still constrained by the continued self-imposed output restrictions of several major OPEC producers. About 8-9 million B/D of ready excess producing capacity is still intentionally kept off the market, half of it in Saudi Arabia. This surplus oil could be produced at substantially lower cost than most flowing non-OPEC oil. Thus, if the market were completely free of any OPEC intervention, current prices would be still lower.

But even under this less than completely free market, we have witnessed a price drop of truly historic proportions. It has by now completely wiped out all the increases of the 1979/80 OPEC price explosion plus about half the increases of the first OPEC price explosion in 1973/74. Since it was clear in 1973 that prices had to rise substantially in real terms to restore a viable long-term supply/demand balance, the current oil price is probably broadly in line with the level that would have prevailed if market forces, instead of the cartel, had shaped the price trend over the last 13 years.

The key question for the near term, that is the next 3 to 4 years, is whether the market will determine prices, perhaps even more so than now, or whether OPEC, possibly with the support of some other exporters, will make an effective comeback. Rather than trying to provide a very speculative answer to this question, I would like to discuss briefly a) what it would take for OPEC to make an effective comeback, and b) what we might see in the next few years if market forces prevail.

Given OPEC's historical success in providing incremental revenue to all its members, the economic rationale for reviving it would seem to be obvious and the technique of doing so relatively simple. But the non-economic, and perhaps non-rational, factors potentially blocking such action are also quite considerable. There is no doubt that in 1985, OPEC's worst revenue year since 1980, every member still earned substantially more oil revenue than it will this year if prices remain anywhere near their present levels. This applies even to Saudi Arabia, OPEC's largest producer, which triggered OPEC's downfall but was not the cause of it. In 1985 Saudi Arabia exported about 2.5 million B/D at \$26. This year, if it continues to stick to its 4.3 million B/D OPEC quota, it will export 3.5 million B/D at less than \$15/Bbl, if present prices prevail. True, Saudi Arabia's decision to end its swing producer role, move up to its full OPEC production quota and sell its crude oil on a net-back formula tied directly to the market prices of refined products was not based on last year's average output, but on the need to counteract the untenably low export level imposed on it last summer by other OPEC members.

Nevertheless, if an administered reduction in OPEC exports were to cause a disproportionate increase in prices, Saudi Arabia would benefit from this action along with every other OPEC member. Such a relationship between volume and price is quite likely. OPEC is apparently producing about 17 million B/D of crude oil in the first quarter. If it were to reduce this volume by 9% to 15.5 million B/D, available supplies would probably become sufficiently reduced to cause oil prices to rise by a multiple of 9%. A relatively simple step for OPEC and basically in line with its successful previous strategy.

Perhaps the group will actually move in that direction at its extraordinary ministerial meeting next week in Geneva. But there is a strong possibility that it will not move far enough, for a number of reasons. One is the persistent insistence of Saudi Arabia, backed by Kuwait and the other oil producing sheikhdoms (but opposed by several other OPEC members) that unless non-OPEC exporters share in the burden of carrying excess producing capacity OPEC will not reduce its output at all. Perhaps even more thorny is the problem of allocating any OPEC output reduction among its members. Iraq's insistence on maintaining its substantial recent increase and Iran's equally insistent opposition to it are a case in point. The allocation problem is rendered still more complicated by the fact that any reduction would probably have to be made not from the current actual production level of 17 million B/D but from the various members' announced production targets which add up to a total of 18.5 million B/D. Finally, there is the familiar problem of

maintaining intra-OPEC pricing or production discipline for any extended period of time. Thus, an apparent agreement to share output reductions may not mean that it will actually be implemented on an ongoing basis.

Over time OPEC's internal problems may well be worked out and direct support from some non-OPEC exporters in the form of production curtailments may well be forthcoming, given the indisputable fact all oil exporters would receive higher revenues from a revival of the cartel. How much would prices rise under this scenario? Probably nowhere near last year's level. There are indications that Saudi Arabia and the Gulf sheikhdoms would actively oppose an increase of that magnitude because it conflicts with their long term interests as the world's lowest cost oil suppliers. A recent French press interview with the Kuwaiti oil minister is interesting in this connection. He predicted that the world price of oil would stay around \$18 for the next 3-4 years.

Now to my second point, the price of oil under free market conditions. Here we must differentiate between short-term and long-term equilibrium prices. The first is the price necessary to bring forth all required production from existing oil deposits. The second includes the replacement cost of oil, i.e. the cost of replacing depleting reserves. There is generally a very substantial difference between these two types of prices, reflecting the vastly different cost factors.

In the U.S. the so-called "surrogate" finding cost of oil and gas, compiled annually by the well known accounting firm of Arthur Andersen & Co., averaged \$10.40/Bbl of oil and gas

equivalent (with the gas converted to barrels of oil equivalent--BOE--on a Btu basis) for the period 1980-84. Production costs on the same basis may have amounted to about \$3-4/BOE, excluding all taxes. These are very rough approximations. For example, both finding and lifting costs differ for oil versus gas, and of course among regions and structures. But the figures indicate that the current wellhead price of about \$15 is probably below the price required to replace depleting reserves since it includes neither profit nor allowances for severance tax payments. On the other hand, the current price is high enough to permit continued production at an operating profit from most existing oil and gas deposits. In fact, the short term equilibrium price could drop substantially more before significant volumes of flowing domestic crude oil production would be shut in. Most flowing foreign oil could also be produced at much lower prices.

We are already seeing the result of the price decline so far in the form of the very substantial reductions in exploration and development expenditures announced by most U.S. oil companies this year. This is hardly surprising. With a \$10/BB1 average drop in wellhead revenue (and a somewhat smaller drop in gas prices), gross production revenues will fall by more than \$50 billion over the next twelve months, or by 40% from last year's total.

In the period 1974-79, when oil prices were much higher in real terms than they are now, oil drilling was insufficient to prevent an average annual decline in "lower-48" production of

nearly 300,000 b/d. In the period 1980-85 the production trend stabilized, as the 1979/80 price increases brought about a higher drilling rate. If market prices prevail we are likely to return to the year-after-year decline of the second half of the 1970's, but at a more rapid rate.

On the demand side, the lower market prices are increasing consumption, both because of the resulting general increase in economic activity, requiring more energy and, hence, more oil, and because of fuel switching from coal and gas to oil which is already underway. In the electric power sector, unused oil burning capacity in existing operating facilities is sufficient to triple last year's oil consumption of 430,000 B/D. This is a theoretical maximum number which will not be reached. But if residual fuel oil prices go below \$12, fuel switching from coal and gas to oil in the electric power sector would become quite substantial. In the industrial interstate gas market nearly 1 tcf is consumed in units with dual firing facilities. This is equal to about 450,000 B/D of fuel oil and represents the theoretical maximum switchable capacity in this market. Of course any gain by oil in either of these markets is reversible. Thus, if oil prices rise due to fuel switching and other factors, some or all of the gains in this market may be lost again.

Our scenarios indicate that whether OPEC gets together again or whether market forces prevail, the price of oil during the next several years is likely to be substantially below that of the last several years. The resulting increase in demand and decrease in production will inevitably raise our import levels. Last year net oil imports amounted to 4.1 million B/D, and would

have been slightly higher absent last year's substantial inventory reduction. By 1990 net imports could well be in the area of 7.5 million B/D, even if prices do not go to the lowest level discussed here.

Higher oil imports at declining prices are not per se against the national interest. On the contrary, by reducing all energy costs they stimulate economic growth. However, the other side of the coin is the unavoidable negative impact of the lower prices on all domestic energy revenue and production as well as the ensuing higher dependency on foreign supplies and the negative impact on our trade balance. The new energy debate will once again revolve around the question: at what point, if any, do the negative aspects of higher imports outweigh the positive aspects and what, if anything, should be done about it. Some of us have been there before!