THE FIRST OIL PRICE EXPLOSION 1971-1974

M. A. Adelman

MIT-CEPR 90-013WP
May 1990

M. A. Adelman
Department of Economics and
Energy Laboratory
Massachusetts Institute of Technology
Cambridge, Massachusetts 02139
ABSTRACT

The 1970 price of Saudi Light crude was $1.21, of which 89 cents was excise tax. By end-1974, the price was about $11, of which 30-50 cents was a fee paid to the former owners, now operators.

The detailed history of the change does not support any model of resource scarcity, nor of an over- and under-investment cycle, nor any transient shortage. What happened was learning by doing. A nascent cartel gained experience and confidence by repeated success in raising prices.

Despite excess supply (deficient demand) in 1971 and 1972, repeated excise tax increases raised the price. The expectation of continued tax/price increases, plus the threats of Saudi cutbacks, account for most of the excess demand in the first nine months of 1973, when the tax was raised to $3.

The Arab producers' cutbacks in October 1973 amounted to roughly 340 million barrels, 9 percent of world non-Communist consumption during November/December. The momentary explosion in spot prices was made permanent by a ratchet: OPEC increasing the excise from $3 to $7.

The "embargo" was a non-event. All consuming countries suffered about the same loss of supply. "Access" to oil, and good or bad relations with the producing nations, were irrelevant.

The 1974 tax/price increase, of roughly 50 percent, was achieved in spite of deficient demand, overflowing storage, much discounting, and a buildup of excess producing capacity to over 10 million barrels daily, a third of output. Saudi Arabia was a price "moderate" in words, in fact a leader.

[The research for this paper has been supported by the National Science Foundation, grant #SES-8412971, and by the M.I.T. Center for Energy Policy Research. Michael C. Lynch made many useful suggestions. But any opinions, findings, conclusions or recommendations expressed herein are those of the author, and do not necessarily reflect the views of the NSF or of any other person or group.]
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INTRODUCTION

This paper is one in a series which aims to explain how the world oil price, which had slowly declined in real terms by about 85 percent from 1945 to 1970, exploded upward and then fluctuated drastically in the next 20 years. In previous papers we explored the period before 1970, then the price turnabout of 1970-71. [Adelman 1988a, 1988b] In this paper, we try to explain changes in the price of Persian Gulf crude oil during the four years 1971-74. February 1971 is the date of the five-year Tehran agreements between the oil companies and the Persian Gulf host governments. After repeated violations they were finally repudiated in August 1973, (below, p. 38). There followed more drastic price increases, the war and Arab production cutback, the unprecedented price increases on January 1, 1974, then additional increases.

Broadly speaking, at least three explanations for the change have been offered:

(1) There was increasing scarcity of the limited non-renewable resource. As growing demand strained limited supply, new reserves became ever more expensive to find and develop. (For references, see [Adelman 1986], pp. 387-88)

(2) Oil prices are governed by a cycle of over- and under-investment. [Hogan 1989][World Bank 1988] A long period of unduly low prices discourages drilling and provokes a scarcity which must be relieved by higher prices. But the increase overshoots, inducing excessive drilling and supply and eventually lower prices, as in the 1980s, which provoke a new scarcity, and so on.

(3) There was no change in scarcity of either type, but rather a change from a mostly
competitive market to control by a small group.

These explanations all assume wealth-maximizing, but under changing conditions. A fourth argument, that governments are not wealth-maximizers, but instead follow non-economic goals, is confusion. Any government seeks first to survive, then to cultivate its garden, or spread the true faith, or bash its neighbors, etc. But whatever the objective, the more wealth the better to attain it. Preferences or non-economic objectives govern their spending: our subject is their conduct in acquiring the means to spend. The government-owners, like private firms, seek to maximize by trial and error, especially error. But there is an important difference. Small Less Developed Countries (LDCs) are sovereign parties, free of legal restraint. There is no law to keep them from doing anything they wish. Hence they are a better fit to the abstract model of a cartel.

We stay therefore with these hypotheses, and we first summarize briefly the developments before 1971.

Growing tensions 1945-1970 After World War II, the oil fraction of worldwide energy use increased greatly. There was less competition from non-oil sources. And a rising fraction of the oil originated in a small group of countries with low-cost deposits. Thus the potential oil price which a monopoly could charge kept rising. But the

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1 In a private company, numerous stockholders with varying tastes are all best served by maximum present value. See [Brealey & Myers 1984, p. 20]

2 A journalist who was on a first-name basis with Secretary Kissinger, writes: "Nixon gave the Shah carte blanche to purchase any amount of military equipment short of nuclear weapons. This...led [him] to instigate the steep rise in the price of oil in 1973 to make it possible for him to finance his purchases." [Brandon 1988, p. 354] So, if the Shah could not have weapons, he had no wish for more revenues. That is not credible.
companies who produced and sold the oil did not dare to collaborate. Moreover, company concentration decreased. The market price declined slowly, in the direction of the long run competitive level, but it never reached it.

The 1970 above-competitive price  The Persian Gulf price reached an all-time low of $1.21 per barrel in 1970. One often reads that it was unsustainably low (e.g. [World Bank 1988]) In fact it was unsustainably high in a competitive market.

Lifting costs were about 5 cents per barrel. Development investment to maintain and expand reserves and output, at a 20 percent rate of return, amounted to another 4 cents. The resource rent (user cost) of the "limited non-reproducible" asset, oil in the ground, was more than allowed for by assuming accelerated growth in demand and zero new field discoveries; this would have raised development cost by another 4 cents [Adelman 1966]. As Figure 1 shows, the assumptions were wildly pessimistic. Reserves and capacity were highly expansible.3 (In 1990, they still are.)

[FIGURE 1 HERE, bound at end of text]

There is also an independent estimate of resource rent. In 1976, Saudi Arabia agreed to pay the Aramco companies 6 cents for every newly discovered barrel, as

---

3 The expansibility of existing reservoirs had been pointed out by [Adelman 1966]. It was recognized in practice, but not in formal statements. The exploration manager of BP estimated end-1972 Middle East reserves at 340 billion barrels, with another 129 billion "possible," total 469 billion. [PPS 10-73:369] During 1973-1989 inclusive, Middle East cumulative production was 110 billion, hence end-1989 reserves should at most have been 359 billion. In fact, they were 660 billion. [OG]: WWO 12-31-89] The unlooked-for 300 billion were added despite very little exploration. At end-1984, the U.S. Geological Survey team [Masters et al. 1987] estimated only a 5 percent probability that as many as 199 billion remained to be discovered, over an unlimited time period. In fact, the gross increase in only five years, by end-1989, was 389 billion.
produced. Suppose 100 new-found barrels could be developed overnight, and production started tomorrow. We assume the average depletion rate of Saudi production, which was 2 percent. Hence production would be 2 barrels the first year, 1.96 barrels the second, etc. The discovery fee on 100 barrels is 12 cents the first year, 11.76 cents the second year, etc. If one assumes an interest rate of ten percent, the present value of those 100 newfound barrels is just one dollar ($1.00), or one cent per barrel. (It would take a 4 percent discount rate to make it worth two cents.) At 1970 prices, it was of course much less, but such adjustments flog a dead horse.

For those who knew the data best, the "limited irreplaceable resources" whose looming exhaustion supposedly promised a world "energy crisis"—soon—were worth one cent per barrel.  

All other available indications before mid-1970 also pointed to a disequilibrium market, with price above the long-run competitive level. Reserve values in the USA were stable to declining. Long term contract sales and offers were below current prices. Internal oil company documents saw no solution to the urgent problem: host governments wanted them to produce more than could be sold at prevailing prices. (It is a potent legend, that governments really preferred to keep oil in the ground.)

The advent of OPEC and the excise tax  In 1945, when a host government

---

4 A discovery fee of only 6 cents, when the market price was over $12, is merely a special case of marginal revenue being a tiny fraction of the price. With reserves superabundant, the value of an additional unit was close to zero.

This extraordinary gap in asset values is a symptom of the unbalanced world oil market, where low-cost reserves were (and are) kept out of production to maintain the price.
OPEC was formed that year, and its first great achievement was to transform the income tax into an excise tax. The "posted price", previously an approximate market price subject to change, became permanently fixed. Thereby the tax also became a fixed amount per unit produced, and it stayed constant despite the attrition of prices in the 1960s.

By 1970, profit sharing was no longer at issue. The governments could take it all, and were getting nearly 90 percent. Instead of negotiating over how much the companies were to pay, the governments had to determine how much to pay the companies, who needed an inducement to invest to maintain and expand operations.

Table I.
The excise tax structure, 1970

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Posted price</td>
<td>$1.80</td>
</tr>
<tr>
<td>2</td>
<td>less various discounts</td>
<td>.141</td>
</tr>
<tr>
<td>3</td>
<td>royalty @ .125</td>
<td>.225</td>
</tr>
<tr>
<td>4</td>
<td>accounting cost</td>
<td>.10</td>
</tr>
<tr>
<td>5</td>
<td>&quot;Profit&quot; (line 1 less sum of lines 2-4)</td>
<td>1.334</td>
</tr>
<tr>
<td>6</td>
<td>Income tax @ .50</td>
<td>.667</td>
</tr>
<tr>
<td>7</td>
<td>Government take (lines 3+6)</td>
<td>.892</td>
</tr>
</tbody>
</table>

NB: Market price was about $1.21
(Source: Adelman 1972, p. 209)

The new system was recognized quickly in the trade press. An excise tax plainly labelled as such would not have been deductible from U.S. income tax, only from taxable income. True, the U.S. Internal Revenue Service soon raised the question with various oil companies. But there was no litigation, and therefore no
court records for the historian to examine.

Take might be increased by raising the posted price, or by reducing discounts, or by raising the "income tax" rate. There were minor changes during 1960-1970, and then many more, often with mind-numbing complexity. But the only place that mattered was the bottom line, e.g. line 7 in Table I.

**Challenge and response**  Although the price declined markedly in 1960-70, the excise tax actually increased OPEC per-barrel revenues, and of course total revenues rose greatly.

[FIGURE 2 HERE, bound at end of text]

But by 1970, the situation was becoming untenable. Another five to six years of declining prices would have inflicted losses on the companies, and made it impossible for them to continue operations. The ball was in the government's court: if they could not raise prices, they must reduce excise taxes.

In 1970-71, the governments had by concerted action imposed or "negotiated" a tax increase, which companies could pass along in price with no collusion. The agreements with the producing companies in the OPEC nations provided for escalation of tax over a five-year period. Price expectations were turned around.
Table II.

PRICE INCREASES SCHEDULED UNDER TEHRAN AGREEMENT

Saudi Light 34° API ($/barrel)

<table>
<thead>
<tr>
<th>Date</th>
<th>&quot;Posted Price&quot;</th>
<th>&quot;Government Take&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-14-70</td>
<td>1.80</td>
<td>0.908</td>
</tr>
<tr>
<td>2-14-71</td>
<td>1.80</td>
<td>0.989</td>
</tr>
<tr>
<td>5-31-71</td>
<td>2.180</td>
<td>1.261</td>
</tr>
<tr>
<td>12-31-72</td>
<td>2.285</td>
<td>1.321</td>
</tr>
<tr>
<td>12-31-73</td>
<td>2.392</td>
<td>1.390</td>
</tr>
<tr>
<td>12-31-74</td>
<td>2.502</td>
<td>1.456</td>
</tr>
<tr>
<td>12-31-75</td>
<td>2.615</td>
<td>1.525</td>
</tr>
</tbody>
</table>


[FIGURES 3, 4 HERE, bound at end of text]

PRICE AND EXCISE TAX ("TAKE") 1971-1974

We now turn to the developments after January-February 1971, the signing of the Tehran agreements. As Figure 3 shows, both government take and arms-length prices increased over the period. The two stayed in tandem until the start of 1973, when prices began increasing more rapidly. In October 1973, prices rose considerably, but take was doubled, closing the gap. In November and December, prices can no longer be observed. At the end of the month, government take was put to $7 effective January 1, 1974. Figure 4 overlaps the end of Figure 3, and shows only the excise tax for 1974.
### Table III.

**Market Economies’ Oil Production & Consumption—Percent Annual Increase**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption</td>
<td>8.3</td>
<td>8.1</td>
<td>5.2</td>
<td>7.2</td>
<td>7.4</td>
<td>-2.8</td>
</tr>
<tr>
<td>Production</td>
<td>8.8</td>
<td>9.9</td>
<td>5.4</td>
<td>5.2</td>
<td>8.8</td>
<td>-1.4</td>
</tr>
<tr>
<td>including:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Venezuela</td>
<td>1.3</td>
<td>3.0</td>
<td>-4.0</td>
<td>-9.0</td>
<td>4.2</td>
<td>-11.6</td>
</tr>
<tr>
<td>Algeria</td>
<td>12.3</td>
<td>7.5</td>
<td>-26.0</td>
<td>42.5</td>
<td>1.8</td>
<td>-5.3</td>
</tr>
<tr>
<td>Libya</td>
<td>22.0</td>
<td>6.8</td>
<td>-16.8</td>
<td>-19.8</td>
<td>-2.9</td>
<td>-29.9</td>
</tr>
<tr>
<td>Nigeria</td>
<td>31.3</td>
<td>100.2</td>
<td>40.2</td>
<td>18.9</td>
<td>12.6</td>
<td>13.3</td>
</tr>
<tr>
<td>Persian Gulf</td>
<td>10.8</td>
<td>11.8</td>
<td>16.9</td>
<td>11.2</td>
<td>16.8</td>
<td>2.9</td>
</tr>
</tbody>
</table>


Possibly the pressure of excess demand raised the market price, and tax take followed as the governments tried to capture the rents. Or perhaps the governments raised taxes and prices followed. Possibly there was a mixture of the two. Our task is to see which hypothesis best fits the facts.

**Competitive Supply/Demand: Possible Strain on Capacity**

Our guiding concept is that of slack or strain in capacity, i.e. excess supply or excess demand. Slack means that additional output can be produced at a cost below the current price; strain means that additional output would impose a unit cost above the price. In a slack market, prices are under downward pressure, as the amount offered exceeds the amount demanded, while prices are under upward pressure in a tight or strained...
Slack and strain may refer either to the short run, with output available only from current equipment, or to the long run, given additional investment. The previous analysis was long run: with more investment, much more could have been produced, at a cost far below price.

In the rest of this paper, we will be concerned with the short run in 1971-74, reckoning only the capacity already in place or so close to completion that its output entered into current negotiations.

Before 1971 excess capacity outside North America was small and fleeting. This is contrary to widespread opinion, which confuses (a) capacity available for sustained higher output, which bears on prices, with (b) the small amount of spare capacity needed either to offset downtime (the conventional figure is 1-2 weeks annually, or 2-4 percent), or as cheaper insurance against irregular and seasonal peaks than building storage would be. Substantial excess capacity was impossible because with the Persian Gulf production growth rate around 10.5 percent, even 20 percent excess would be liquidated in 20 months. In 1963, the chairman of BP had blamed the price pressure on the industry’s ability to expand "enormously" in 12 to 18 months. During the 1967 Arab "embargo," when Iranian and Venezuelan output was at a premium, output increased in those countries by only 5.7 and 5.9 percent respectively. [Adelman 1972, p. 163-164]

The greater the absolute increase in production/consumption, the more likely a strain on capacity. But the greater is existing capacity, the less the effect of any
given absolute increase. Hence we would look to percentage increases, as suggesting but not proving the likelihood of strain.

[FIGURES 5, 6 HERE, bound at end of text]

Table III and Figures 5 and 6 show the source of possible strain on capacity: absolute and relative growth rates in Market Economies (non-Communist world) consumption, and in Persian Gulf production. During the 1960s, after four erratic years (which I believe are artifacts), the rate of world growth had increased from about 1 3/4 mbd to about 2 2/3 mbd, then turned down. Persian Gulf expansion had increased steadily through 1971, then paused. The relative consumption growth rate had been quite steady at just under 8 percent per year, then declined through 1971, and never regained the 1969 peak. The 1973 production increase exceeds consumption because of inventory buildup. Consumption itself is overstated because there is no allowance for the buildup of consumers' stocks of refined products. We cannot measure it, but existing storage capacity was substantial. [Burton 1982] Even the high growth rates of the 1960s had not strained capacity, since investment requirement had declined. There is no indication after 1969 of any strain on the system, or difficulty in expanding enough to meet indicated demand.

In summary: growth indicators give no hint of any strain on capacity throughout the period, to the eve of the Arab oil embargo in October 1973.

**Changes in government take as cause of price change** We look now at effect of changes in government take. To the operator it was like labor, supplies, or any
other short-run variable cost, except that it was more easily calculated.  

[FIGURE 7 HERE, bound at end of text]

The lowest curve in Figure 7 is the short run supply curve SS. At capacity, SS goes vertical; no more can be produced at any price. D1 is the initial short run demand curve. CP is the competitive price. Let the governments now impose Excise 1. For the private companies who produce and sell, their new supply curve is S+Excise 1, and the price rises to P2. If the governments again raise the excise tax in concert, the price can rise by very nearly the amount of the tax, to P2, with no collusion among the companies. Higher or lower demand will have some effect on the price, but it is small compared to the effect of the tax.

Now let panic shift the demand curve so far to the right that it intersects the vertical section of the supply curve, at price P. But as panic subsides, demand soon shifts leftward back to D1 or even D2. The higher price P cannot remain long, unless there is another concerted increase in the excise tax. The supply curve is now

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5 Sheik Yamani clearly stated the importance of the excise tax, in a statement whose provenance is lost, but must have been made around this time.

Realized (actual market) prices had only "the near cost of production" as the price floor. "However, working on the basis of the posted price, say $1.80 a barrel, the situation is very different. The company then pays the government half the difference between the cost of production (20c) and the posted price ($1.80) that is to say 80c. This means that the company has a minimum tax paid cost of $1 per barrel which sets an absolute floor to its price. It cannot go out into the market and dump its oil; it will have to sell at a price considerably above $1 in order to make a decent profit. This is why posted prices are absolutely vital for the producer governments."

In the same vein, he stated at a symposium in 1969: "In case of nationalization, the national oil companies of the producing countries will enter into competition on the world market and prices will fall to $1 per barrel in the Gulf." [recalled in OGJ 2-17-75:55]
S+Excise 3. From now on, even a drastic shift leftward in the demand curve, or a drastic shift rightward in the supply curve will have only a minor effect on the price. The process is then a ratchet: market forces raise the price temporarily to $P_x$, but the excise tax keeps it permanently at $P_3$.

**EXCESS SUPPLY, BUT RISING "TAKE" 1971-72**

From early 1971 to nearly the end of 1972, prices increased despite continuing substantial excess capacity.

**Mediterranean discounting** In March 1971, a Libyan shutdown was feared because of new demands, which the companies rebuffed; but the industry expected no reduction in supplies for Europe. [PIW 3-22-71:3] Late in 1971, the *Oil & Gas Journal* noted "bulging crude stocks in Europe, low tanker rates, and an oversupply of crude in world markets" [OGJ 11-1-71:40] The Venezuelan Ambassador to the United States called for a hemispheric energy policy. His request for preferential access to the US market only made sense because of excess supply:

"Our normal production is 3.5 - 3.6 million barrels daily, a level to which we must return by 1972 if we are to achieve rational goals conforming to our rate of economic development." [OGJ 12-6-71:46]

At the year's end, Venezuela increased taxes and imposed penalties for under-production. They required that producing companies deposit increasing sums of money to offset the deterioration of producing properties in anticipation of their reversion to the State in 1984. [PIW 12-27-71:2] Later they assessed "stiff" penalties for under-production. [PIW 4-12-72:4]

In November 1971 Iran seized two small islands in the Persian Gulf from the
local emirate. Libya blamed Britain for this "anti-Arab" measure and "retaliated" by seizing BP's share of the Libyan Sarir field, which was then producing 441 tbd. [OGJ 12-13-71:41] The Sarir shutdown

"was a dud as far as making any impact on surplus world oil supplies or even BP's own position. It didn't even cause a ripple in the tanker market -- usually so sensitive to any shutdown of 'short-haul' oil." [PIW 12-13-71:1] [In fact, the Sarir shutdown was very welcome.] "Companies have been anxious to reduce production in Libya but 'no company had the courage to do it and now Libya is making BP do it 100 percent', one observer said." [PONS 12-9-71:1]

Algeria and Libya were both discounting prices in early 1972. [PPS 2-72:53,64] The second quarter of 1972 was worse. Persian Gulf output actually declined, Iraq's output the most. Their exports from the Eastern Mediterranean were overpriced in comparison with Persian Gulf loadings, because of the low tanker rates [PPS/PE 2-72:46]. They were being "increasingly priced out of a competitive market by their high tax burdens." [PIW 5-22-72:3]

The short-term down-swing was the mirror image of the up-swing of two years earlier, when the State Department called Libyan demands "reasonable." By that criterion, they should have called for a reduction in Libyan and Iraqi take.

Iraq expropriation The drop in Iraq exports was the last straw, or the last chapter in the 45-year history of mutual mistrust, a vicious cycle of government threats and Iraq Petroleum Company (IPC) under-investment.6 The government

6 In 1988, I heard a high State Department official blame the 1972 Iraq nationalization on resentment at the Six-Day War in 1967. There is no evidence for this proposition. Moreover, it ignores the situation in 1972, with the government demanding guaranteed higher output. It also ignores government-company relations in Iraq over nearly half a century.
demanded that output be restored, and also that IPC commit to expand by 10 percent per year. [NYT 5-18-72:67] IPC refused, and Iraq seized about 62 percent of their production on June 1. [PPS 7-72:238] The rest served as a hostage, for only a short time.  

Iraq was not expected to have any difficulties operating the fields, since there had been only about two dozen expatriates left there. But marketing was a problem. [PPS 7-72:238] Iraq offered to sell "at reduced and competitive prices" at spot or by long term contract. [WSJ 6-6-72:6] Other Arab OPEC nations promptly loaned them enough money to tide them over the period of low production after the exit of IPC. "Behind the Arab nations' action...lies an offer by Iraq to sell its newly nationalized oil at a cut rate, which would have driven down the revenues received by the other countries for their oil." [NYT 6-10-72:37] [NYT 6-12-72:6]

Possibly the fear of provoking price cutting also explains why the IPC did not try to blacklist Iraq oil.

**Deficient demand** Mr. McFadzean, the managing director of Shell, said in a speech in May 1972 that the industry was suffering "from having provided the facilities for an increase in trade which did not materialize." [See also PPS 6-72:222] In May, President Nixon visited Iran; the Shah unsuccessfully tried to get special access to the American market. [Kissinger 1982, p. 868] In August, Sheik Yamani expressed his concern with falling prices. [IHT 8-22-72]. Later, an oil executive

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7 There had been three companies, with identical ownership. Their respective production in millions of barrels daily in 1971 is shown in parentheses: Iraq Petroleum Company (1.02), Mosul Petroleum Company (.025) and Basrah Petroleum Company (.601). Iraq Petroleum Company was nationalized on June 1.
resumed the familiar theme that crude would remain in temporary surplus "for at least the next few years." [OGJ 10-2-72:38] Somewhat later, another Shell executive wrote: "The underlying situation of supply and demand remains one of potential surplus. Yet the producing countries manage to reap the rewards of a sellers' market by creating a producers' monopoly." [Chandler 1973]

As late as November 1, 1972, the suggestion that the Aramco output increase be accelerated was questioned, but on two quite different grounds. One was cost: haste makes waste, and the current expansion program was putting a strain on the company. But also:

"[I]t would appear that an incremental cost of about 4 cents per barrel...would be easily justified provided the crude can be sold...Not only do we still have substantial surpluses of Arabian Light yet to be sold in 1974, but...we are experiencing considerable difficulty in selling availabilities of Arabian Heavy and Arabian Mediums." [7 Church 487]

Yet despite the excess supply, the governments' tax take kept rising. Saudi take had started in January 1971 at 99 cents, up by 10 cents over 1970. In the next two years it was raised to $1.55. Where the companies had not even been able to hold the price line, the governments could actually advance it.
Table IV.  
F.O.B. Prices: Arab Light Crude 1960-1974
(Chevron Third-Party Sales)

<table>
<thead>
<tr>
<th>Year:Mo</th>
<th>Min</th>
<th>Max</th>
<th>(PIW) Average</th>
<th>Saudi Gov't Take</th>
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<td>1960</td>
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<td>1.63</td>
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<td>3.41</td>
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Crude 1960-1974 (P1W) Average
Table IV Sources:  1960-70: prices from PIW, take from PPS[PE]
Monthly average prices, from PIW 12-25-72 and 6-4-73.
Because of rapidly increasing take in 1973, no record can be wholly accurate. An approximate check is provided by Saudi annual average Saudi take per barrel, which was respectively 1.26, 1.44, and 1.57 for 1971-73. Source: PPS [PE] 11-73:416 and 9-76:338.

Violations of Tehran and rising take  In August 1971, the Persian Gulf OPEC nations demanded increases additional to those in the Tehran agreement, to be secured by higher posted prices. The ostensible basis was the devaluation of the dollar. In fact, the Tehran and Tripoli agreements had both provided for escalation to offset worldwide inflation, of which the devaluation was only an incident. [Tehran agreement paragraph 3 (c) (2)] Moreover, much of the Persian Gulf revenues were in sterling not dollars. The Tehran agreement, written for five years, had lasted for about six months. Well might Mr. Kissinger write-- a decade later--that it set a world record "in the scale and speech of its violation." [Kissinger 1982, p. 865]

The president of Exxon said that the new demands violated the Tehran agreement, but "the industry will solve these problems just as our differences with them were reconciled earlier this year and before." This was precisely correct, both as to substance and as to ritual. The companies made an offer. The governments

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8 He had not been Secretary when the agreements were made, and took no part in the State Department's promotion of them.
refused it and broke off the talks. The companies made a better offer, taxes were raised again, and crude oil prices with them. [WSJ 10-8-71:7; 11-5-71:16; NYT, 11-3-71:14; WSJ 11-9-71:2; 11-11-71:6; 1-12-72:7; NYT 1-14-72:4; PIW 1-31-72:1, 2-7-72:3]

But the producing nations had already made an additional demand, for 20 percent "participation." The companies said they were distressed that the agreements "have not led to the long peace...that they had anticipated", and they would resist the demands as a violation of the agreement. Exxon President Jamieson, who a year earlier had rebuffed Occidental and helped blast open the door, called the new demands contrary to the 1971 agreements, which the OPEC countries specifically agreed satisfied all previous OPEC claims and resolutions.

The governments responded that "they would take part in a 'combined action' if they didn't receive 'satisfaction'", and the companies agreed to negotiate. In December, OPEC set January 10, 1972 as the date to "finalize" the currency issue; January 20 to "negotiate" participation. [PIW 12-13-71:5] King Faisal warned that he and other Gulf countries would legislate if the companies failed to grant participation. [NYT 2-19-72:41] In March, the Aramco companies conceded participation "in principle." [NYT 11-3-71:4; WSJ 12-7-71:19; WSJ 1-24-72:5; PIW 9-13-71:4, 3-20-72:4]

At this stage, "participation" was a misnomer. It did not mean that the governments (excepting Iraq) would actually produce or sell or transfer downstream. As will shortly be seen, selling oil was precisely what they were warned not to do, and did not intend to do. "Participation" was simply a means of increasing
government take.

As of March 1972, 20 percent "participation" would have meant 9 cents more per barrel. Negotiations dragged through the year, and terms were generally agreed by October. [PPS 11-72:398] Compensation totalled less than $1 billion. [PIW 10-30-72:5] At the beginning of 1973, additional payments amounted to between 9 and 18 cents per barrel. "These costs will rise in future years as prices escalate under the Tehran agreements." [PPS 2-73:44] Moreover, there was even some talk, admittedly vague, of the governments ultimately doing some of their own marketing. To Yamani, this was a worry. He had been warning that participation must provide the right kind of marketing operations. [Mikdashi Cleland & Seymour 1970]

SUPPLY-DEMAND AND CARTEL TAX INCREASES IN 1973

By the beginning of 1973, excess supply had disappeared from the Persian Gulf. Worldwide, consumption and production were increasing at a rate comparable to (but less than) earlier periods. Moreover, Libya and Algeria had priced themselves out of much of the market, increasing the demand for Persian Gulf oil. (Above, Table III.) Chevron and Exxon had expected Libya to produce over 4 million barrels daily [7 Church 332, 339]; production was only 2 mbd in 1973.

But as the picture improved, it became more complex:

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9 PPS 4-72:118 The company and government needed to set four items. (a) Government owes company a certain sum per year to cover the amortized cost of the equity share it is obtaining. (b) Government loses the taxes formerly due on the share it now owns. (c) Company owes government the "price" of the oil which government now owns and "sells" to company. (d) Company owes government its pro-rata share of the year's profits. The subject of the negotiations was: by what amount (c+d) shall exceed (a+b).
[Reported sales and negotiations indicate supply and demand alone will add 3 cents to 7 cents a barrel to price rises of about 7 cents for Tehran-Geneva, and probably at least another 7 cents for participation costs. ...Exact impact of supply and demand is difficult to pin down, however, since many suppliers have recently been reluctant to sell crude, due either to their own internal needs or to awaiting a clear determination of participation costs." [PIW 12-25-72:3]]

This shows the double effect of taxes in short-run price determination. Taxes were due to increase, irrespective of supply and demand, by 14 or more cents. Supply-demand would have added another 3 to 7 cents. But some of what looked like higher demand was really inventory accretion, in anticipation of the higher taxes.

The anticipation effect makes analysis difficult, especially econometrics. Clearly deficient demand in 1971-72 would have lowered price, had it not been for the higher excise tax. But when taxes and prices are expected to keep increasing regardless of consumer demand, the demand for inventory rises before the date of the tax hike. There is no down-side risk in ordering too much. Buyers demand additional amounts at the current prices, sellers offer less in order to hold for the higher prices. The effect precedes the cause: the market price rises before the expected tax increase takes effect. In 1973, the higher excise taxes drove prices up directly. Expectation of still-higher taxes and prices fueled higher demand and drove prices up indirectly.

As Table IV showed (above, p. 17), the 1973 increase in worldwide non-Communist production was again 8.8 percent, the same as in 1965-1970. But consumption was up only 7.4 percent and the decade so far was below previous rates of increase. To understand what was happening, we must return to early 1971 and the beginnings of what became known as "the energy crisis."
THE "ENERGY CRISIS"

As just seen, supply was excessive in 1971-72, as had been the case for over a quarter-century. But there was a mounting preoccupation with what became known as "the energy crisis." The puzzle is what "crisis" means, then and now.

The most influential version was that the increased consumption would dry up reserves. The world was running out of minerals, especially fossil fuels, with an ever-enlarging "gap" between supply and demand. The director of the US Bureau of Mines said that by the end of the century

"We will be competing for those foreign mineral products with other mineral-hungry nations all over the world. The situation could lead to a global minerals shortage that would make our current energy crisis look like the good old days by comparison." [PIW 9-10-73:10]

More rationally, Secretary of State Kissinger announced later in the year that the "crisis" was "the inevitable consequence of the explosive growth of world-wide demand outrunning the incentives for supply." [PIW 9-17-73:3] This is at least an appeal to the facts.

Early in the year, Aramco had announced a massive capacity expansion over five years, costing $147 per daily barrel. If Aramco netted 30 cents per barrel, "$2.2 billion would be recovered in about 16 months--a payout that can only be considered fantastic." [WO 4-73:15] But this takes account only of Aramco's share of the proceeds. The total return per barrel, net of operating cost, was $2.20 in April, so
payout was actually 67 days, and the flow would continue many years.\(^{10}\)

If this was an insufficient "incentive for supply," what would be sufficient?

**Natural gas in the USA** In the United States, "the gap" was all the more plausible because natural gas prices were held by regulation below the market-clearing level, and there was excess demand. The Federal Power Commission was forced to allocate gas, first shutting off less "urgent" customers, then juggling regional requirements and availabilities, leaving many unsatisfied demanders.

Thereby a general model was fixed in the public consciousness. Higher prices were ruled out, and would not do much good anyway, since gas resources were assumed to be dwindling. [FPC 1972] (Some economists were found to echo this, and to argue that public policy should consider only income distribution. [Dirlam and Kahn 1958])

Imports were perceived to be badly needed and the world was impressed by American pipeline executives traveling about in search of Algerian and Soviet gas supplies. The Secretary of Commerce made a trip to Moscow to discuss imports of Soviet gas. [OGJ 12-6-71:121] This marked "the frantic search for supplementary supplies of natural gas to meet the threatened 'energy crisis'." [NYT 12-2-71:1] Gas imports were vital because the "energy crunch" was coming in three to eight years, according to the director of the Office of Emergency Preparedness. [WSJ 12-10-71:5] The Federal Power Commission predicted a gas deficit of 9 trillion cubic feet (tcf) by

\(^{10}\) But in August Aramco announced that from 1972 through 1980, it would spend $500 million annually, or $4 billion in all, to increase output from 8 to 20 mbd, or $333 per incremental daily barrel [NYT 8-9-73:57]. Payout would then be 151 days.
1980 and 17 tcf by 1990. [NYT 2-26-72:46] By late 1972, subsidies were being granted to build LNG tankers to bring gas from Algeria, at considerably higher prices than would have been needed to evoke domestic supply.

The Federal Power Commission permitted the prices of these additional supplies to be "rolled into" or averaged with natural gas prices for resale. Thus pipeline companies could make large profits buying gas for more than what they would receive for it. Naturally they were ready to buy at very high prices. By mid-1973, "US firms begin hard bargaining for Soviet gas supplies", after a protocol signed during the Nixon-Brezhnev summit. The Nixon Administration was committed to subsidize transport cost, but not committed on the amount. The principal sticking-points were prices and interest rates. [PIW 6-4-72:6; 6-18-73:6; 7-9-72:6]

The oil industry on the "crisis"  Oil and gas were considered still plentiful, but costs had to keep rising as the search went farther and deeper. The exactions of producing-country governments were merely an additional cost. There was also much concern with rising imports, which were stimulated by the temporary price ceilings beginning in 1971, which were to last ten years. There were hearings before Congress, and "a proliferation of energy committees in the United States government." [Kissinger 1982 p. 869]

The Tehran agreements, and the many threats to cut off supply, were cited:

"the recent history of sky-rocketing price hikes and threatened cutoffs of foreign oil. The OPEC cartel has shown it can make this oil both expensive and scarce." [OG] 11-1-71:19] "The threat of a massive production shutdown used very effectively during last winter's negotiations still hangs over OPEC crude."[OG] 11-15-71:121]
This was heard with increasing frequency in 1971-73.

**The State Department Contribution** The Department had predicted in February 1971 that following the Tehran agreement (for which it claimed credit), "the previously turbulent oil market would now settle down." In May 1972, Undersecretary Irwin warned at an OECD meeting of a worldwide shortage of 20 million barrels daily by 1980, because of rising consumption. [NYT 5-27-72:35] Iraqi sources referred to this soon afterward, explaining the seizure of IPC. [OGJ 6-12-72:75] [NYT 6-16-72:65]

In May, James Akins\(^{11}\) said that the sellers' market had arrived in June 1967 (the Six-Day War). In fact, the price had continued declining for years. "By 1976 our position could be nothing short of desperate." He expected Persian Gulf reserves to decline after 1980. [OGJ 5-15-72:50] No support was given for either proposition.

His predictions of an oil price of $5 per barrel [NYT 6-20-72:51] was the official view. (Below, p. 29) In April 1973, he was warning of "chronic shortages" and was forecasting $10. [NYT 4-16-73:29]

In other speeches:

\(^{11}\) James E. Akins was "Mr. Oil in the State Department for quite a long span of years." [5 Church 127] After heading the Office of Fuels and Energy, he was loaned to the White House and drafted the energy portion of the President's State of the Union Address in 1973. He became U. S. Ambassador to Saudi Arabia in September 1973, but was dismissed in August 1975. He was later an adviser to President Carter, and his unofficial representative to Saudi Arabia; he attended the happening at Camp David in July 1979.

Because Mr. Akins is very articulate, he is a valuable resource to the historian, especially given the skimpy documentary record.
It is not in the Arabs' interests to allow the companies to continue expansion of production at will, and the producing countries, most notably Saudi Arabia, must follow Libya's and Kuwait's leads in imposing production limitations." [OGJ 6-12-72:66] [Iran had desired higher production] "until fairly recently" but not any more; "Venezuela has restricted production"; "Saudi Arabia has shown some indications that it may not increase production to the extent that the world will require." [OGJ 9-25-72:70]

None of this was true. While Kuwait had restricted output to 3 million bd because of groundless fears that reserves were overstated, [PPS 4-72:131, and 5-72:180] "few are likely to follow Kuwait's lead." [PPS 6-72:215] Iran in March had rejected output restriction [PPS 6072:215], and had announced it expected output to double under a new agreement with the companies, which was in even greater disregard of the Tehran agreements [PIW 7-3-72:6][PPS 8-72:283].

Actions spoke even louder than words. For the whole Middle East, 1972 drilling was expected to rise by 74 percent. [World Oil 2-15-72:62] The actual increase was "only" 53 percent, but Saudi well completions nearly tripled. [World Oil 8-15-73:65] Saudi Arabia was engaged in a record expansion aimed at 20 mbd capacity by 1980 [PIW 10-9-72:3], and the Aramco board chairman had congratulated its personnel for meeting the challenge of a huge construction program during 1971. [Aramco Review, 1972, p. 1] We have already seen that Iraq and Libyan oil went unsold only because they were overpriced and that Iraq expelled IPC for producing too little. As for Venezuela, they had decreed "stiff" penalties for exporting too little. [PIW 4-15-72:4] The Government's chief expert was apparently unaware of all this.

Akins feared a world shortage because "the Arabs would find it difficult or impossible to raise the enormous sums of capital" needed for production. [OGJ 6-12-
A week later, however, he asserted that some producing countries were unable to spend as much money as they received. [NYT 6-20-72:51]12

The worldwide scare: pre-empting supply In October 1972 Sheik Yamani visited Washington to propose an agreement which would give Saudi oil a "special place" in the U.S. market. (The Shah had already proposed one in April--above, p. 14) This "would practically [sic] guarantee its continuous flow to these markets." With no "special place", no guarantee.

The proposal drew much attention, "coming as it does amidst awakening fear of an energy supply shortage." [PIW 10-9-72:3] The State Department was "enthusiastic" [OGJ 10-9-72:35,39]. They must have known the agreement was illegal under the General Agreement on Tariffs and Trade (GATT). Later State said that it wanted no formal agreement, informal arrangements would suffice. [OGJ 12-11-72:53] But the proposal certainly scared Europe and Asia. In early November:

"Fears of Europe and Japan that Middle East oil they were counting on to cover their needs will be diverted by the United States for its own use in a few years weren't dispersed by the recent explanations of [Undersecretary Irwin to an OECD meeting]. If anything they're now even more worried because the U.S. clearly warned them that nothing will stop it from importing the oil it needs." [To counter the "threat"] France may try to do something ... when ... King Faisal makes a state visit next year." [PIW 11-6-72:1]13

12 In 1970 and 1971, total capital expenditures for producing oil and gas in the Middle East were $725 millions. [CMB 1971] Government revenues were $10.8 billion, fifteen times as great. [PPS 11-73:416] Of course the ratio was even higher in 1972.

13 Yet we read that Mr. Irwin was trying "to create a united front among the consuming nations."[Goodwin et al 1981, p.446] As the author says 80 pages later: "In the absence of documents,...judgments about the origin of, and motives governing, State Department actions must be regarded as 'conjectural history' at best." [Ibid, p.526 n.96] True, but hardly an excuse for ignoring the public record of what the State Department did.
The next month, Prince Saud al-Faisal, deputy Oil Minister and the King's son, stated in an interview that "just opening the U.S. market for large volumes of Saudi oil would mean a shortage for Europe and Japan." [PIW 11-20-72:7]

Thus the message was driven home, that consumers should fear pre-emption, and should try to carve out a "special relationship" for "access" to adequate supply. The overtures of the French (recently kicked out of Algeria) toward Iraq allegedly "assured" and "guaranteed" a continuing supply of Iraq oil. [NYT 6-14-72:65][WSJ 6-12-72:9; 6-19-72:7]. In December, the Japanese government committed $780 million for a 22.5 percent interest in Abu Dhabi offshore, for which BP had declined to pay $200 million. [NYT, WSJ 12-11-72] The Ministry of International Trade and Industry called for

"an international conference on energy resources...producing countries, the consuming countries, and the international oil companies....to arrive at an agreed policy on the regulated flow of energy, and to permit its eventual control by a new and permanent international agency on the lines of GATT or the International Monetary fund." [PPS 2-73:74]

**OFFICIAL TRUTH IN 1973**

**Adequate oil supply requires foreign-policy change**

President Nixon, newly re-elected, prepared to issue a special message in the spring. He asked Kissinger, Secretary of the Treasury Shultz, and John Erlichman "to study the relationship between energy policies and foreign and security concerns. [Kissinger 1982 p. 870] Accordingly, Akins was loaned to the White House staff in January. He invited an Aramco employee to visit him at home so that Akins might

"... tell him something that was not known to the State Department and known to very few in the White House. The President's chief domestic aide, Erlichman, was
Akins wanted Ameen to tell Yamani it was very important that he, Yamani, take Erlichman under his wing and see to it that Erlichman was given the message we Saudis love you people but your American [Middle East] policy is hurting us. [Aramco cable, quoted at 7 Church 423]

A government official was using a private person and a foreign minister to change his own government's policy. (See also below, page 40.) Soon Yamani threatened that any attempt by consumer nations to ward off OPEC price increases would mean "war....their industries and civilization would collapse.... [T]hey are prepared to do everything for the sake of the continuation of the flow of oil." [PONS 2-22-73] He hinted darkly: "Many secret developments will be revealed within the coming months..." [OGJ 3-5-73:49]. He repeated the threat of economic collapse in March. [OGJ 3-26-73:42]

One began to read articles like: "Oil Diplomacy: shortages of energy may spur US foreign policy shift." [WSJ 1-30-73:18] In the Nixon administration, some saw oil as a bilateral problem with the Saudis. "More and more experts were arguing that the level of Saudi oil production would be heavily influenced by our attitude toward Israel." [Kissinger 1982,p 871] A special story in the London Economist said the Akins views "are apparently the model" for oil executives' speeches and reports, which "have heavily influenced public comment." [Economist 7-7-73:Survey:11]

**Saudis allegedly sacrifice by producing more**  During the year, repeated Aramco briefings to visitors and representations to the government voiced the same line: there was an "energy crisis", U.S. imports would grow very rapidly, and the only country that could supply them was Saudi Arabia. It was not in their economic interest to expand. Therefore it was necessary to offer them a special inducement, to
insure that their "pro-U.S. policy" of higher output would continue:

What incentives does [Saudi Arabia] have even to let its production remain at the present level? It certainly doesn't need the money...Production of only 5.5 MBD would give the country all the income it needs, with a comfortable margin for reserves. In other words, there is no economic incentive to let production continue growing...

Contrary to what some people have implied, Saudi Arabia has no moral or legal obligation to help us meet our energy needs at the expense of its own future generations by producing and exporting oil that might better be left in the ground. It has no obligation to deplete its own resources in order to provide another country with cheap energy or to bail out those who have failed to plan effectively for their own needs." [Briefing document reproduced at 7 Church 517ff., quotations from 527-528; 534-536]

Saudi Arabia was said to be sacrificing its economic interests by expanding output. Hence, we owed them for producing more. The United States was at fault for not being more self-sufficient. These were the main themes of President Nixon's April message (summarized in [PPS 5-73:164]), but there was no clear indication of how they were to be translated into policies.

**Natural price is monopoly price** Akins' *Foreign Affairs* article in April 1973 [Akins 1973] supplied what he explicitly called the State Department rationale of higher prices. The price "would rise by 1980 to a level equal to the cost of alternate sources of energy" (464).¹⁴

Now, such a level assumes monopoly control. For only when there was no

---

¹⁴ "It is a truism that the upper limit on the price of OPEC conventional oil will be determined by the cost of producing alternatives, that is, synthetic liquid hydrocarbons from heavy oils, tar sands, shale, and coal." [Akins 1982b, p. 9]
longer oil-on-oil competition could its price rise to equal the nearest alternative.\textsuperscript{15} That the U.S. Government expected and in word and deed welcomed the monopoly result had to encourage any would-be monopolists.

It did not occur to any of them that the price of alternative energy may not be relevant even for a monopolist. Consumer response may be a closer constraint.

[FIGURE 8 HERE, bound at end of text]

In Figure 8, the "current price" and quantity are at the lower right. We set cost to zero for simplicity. If the demand curve is as shown by the dotted line at the right, "Supposed Demand", the monopoly price, which maximizes revenue, is very high up. But at some lower price, alternative energy sources are available in very large amounts. They are shown by the horizontal line "Cost of alternatives." A price above that line would simply lose the market. Therefore the whole supposed demand curve is the heavy line with the abrupt bend. The flat portion is the best monopoly price and the State Department's target price.

But suppose that demand is much more price-responsive, as shown by the dashed line "true demand." The true monopoly ceiling may turn out to be below the cost of alternatives. If so, raising the price to that level would be a costly mistake.

Years later, the cartel did make that mistake. But that is not our concern now. What does matter: policy was based on an assumption of which the policy makers were simply unaware. Nobody advising them knew enough basic economics to raise

\textsuperscript{15} Conversely, the pricing of natural gas in the U.S. at less than the cost of alternatives was proof that it was determined by competition. [Adelman 1962]
the issue.

**The potent myth: selective embargo** Akins thought "only partly with tongue in cheek" that the Tehran agreements had been "both successful and stable" (Akins 1973, p. 475). But his most important thesis was that the Arabs might institute a selective embargo (or boycott), starving the United States while supplying friendly nations. (Pages 467-468)

In fact, it was impossible to boycott only one or two countries, while keeping the rest supplied. The world market, like the world ocean, is one great pool. Ships could be diverted from their nominal destinations. Crude oil would be charged into a refinery which commingled crude oil from various sources, and shipped them to various places. Most important: if the target area was under-supplied, prices there would rise and the non-boycotters would have an incentive to ship there, foregoing less remunerative sales. The end result would be a customer swap.16

The then-secretary general of OPEC, Francisco Parra, in remarking the failure of the 1967 embargo, had pointed out that a selective boycott could not work. Akins

16 My own opinion was given in a lecture in April 1973:

"If the Arabs ever attempted to cut off the United States for political reasons, the non-Arab members of OPEC would simply divert shipments from non-American customers to American. Not for love and not for fun (though they would enjoy spiting the Arabs), but for money. Whereupon the Arabs would ship more to Europe and Asia, and the net result would be simply a big confusing costly annoying swap of customers and no harm otherwise. If this is common sense, it is also the lesson of experience. In 1967 a boycott of the United States and also of Great Britain and Germany, whose dependence on imported oil was greater than the United States will ever be, failed miserably." This passage was quoted in the London *Economist* 7-7:73:Survey:12
said that (p. 468) it was "lifted through the efforts of Saudi Arabia." In fact:

...Yamani [said] that non-Arab producing areas are realizing 'undreamed of profits' in supplying oil to 'those we consider to be our enemies.'[sic]" [PIW 7-31-67:8](See also PPS 9-67:343)

In its submittal to the Shultz task force, the State Department had recognized the impossibility of a selective boycott. "Thus to have a problem one must postulate something approaching a total denial to all markets of all or most Arab oil." [Shultz 1970, pars. 215b, 413-415] Yet Akins' assertion was now official truth.

It is sometimes claimed that the article only stated the personal views of the author. [Skeet 1988, p. 84] In fact, it stated the view of those in authority. (1) It codified what Akins had said many times, without rebuke or counter-statement. (2) His superior in rank, Undersecretary Irwin, had echoed his views. (3) His "loan" to the White House was a stamp of approval. (4) Secretary Kissinger believed in the reality of a selective boycott, and acted on his belief, to his eventual discomfiture. (Below, p. 52)

The London Economist summed up:

"Many Americans ...think that the OPEC countries should be granted substantial increases. The most forthright spokesman among them has been Mr. James E. Akins. They maintain that only steep increases will spur America and other industrialized countries to start a crash program to develop alternative sources of energy [which]. . .are needed, they argue, if the world is going to avoid an energy crisis in the 1980s or 1990s when oil production, even assuming perfect cooperation from the Arabs, may not be able to keep pace with world demand. . .Price increases hurt competitors, Europe and Japan, much more than they will hurt America." [Economist 11-26-73; see also their Supplement "Depending on the Arabs", by Dan Smith, 7-7-73, which also emphasizes Akins' role in shaping opinion.]

So certain was an energy crisis in the next decade, or the next, that they thought it urgent to take drastic action, now. And PPS, which had itself spoken more
discreetly, later complained:

"In the past year or so, exaggerated talk of an energy crisis—in effect, anticipating problems that may not become pressing for another decade or so—has greatly strengthened the bargaining power of the Arab states." [PPS 11-73:404]

MOUNTING TENSION IN 1973

There was increasing reason for the market to be nervous as 1973 wore on. Producer-country demands were accelerating. On December 14, 1972, Saudi Arabia had demanded an increase in the price Aramco would pay them on "participation" oil sold back to Aramco. "Yamani has made the decision to break the agreement [of June 1972]." [Church Report 136] He had already made the threats about "collapse."

In January 1973, the Shah of Iran told the Consortium he would observe the June 1972 agreement only until 1979, and only if they increased production from the current 4.5 mbd to 8 mbd.

"The widespread talk of a world energy crisis, and particularly the shortage predicted for the United States, have convinced him that in a sellers' market Iran can go it alone, with or without the cooperation of the Consortium companies." [PPS 2-73:47]

---

17 In the summer of 1973, the writer spent six weeks in Europe interviewing officials in seven European countries, as I had done the previous year in Japan. I asked: what in their view was the problem of oil supply security, and what measures were proposed to deal with it? The report, completed in September, was not published, because an accurate summary of 40 pages would be: "Nothing will come of nothing."

18 The correspondence quoted in the Report is cited to volume 9 of the Hearings. I have been unable to find it, and believe it is from a cable which, like several others, was retained in the sub-committee's files and quoted directly.
In March the Consortium agreed to stay as a service company, and to give up all producing, refining, and export facilities "in return for a guaranteed [sic] long-term supply of crude..." [PPS 4-73:145]

In March, Iraq finished expropriating the IPC companies, without compensation. [PPS 4-73:124] Then they seized a Kuwaiti border post and claimed two Kuwaiti islands. They had already claimed all Kuwait. However, they did nothing to enforce the claim.

In May, the Japanese Minister of Trade and Industry (and future Prime Minister) Nakasone, after a visit to the Persian Gulf, declared the need for "strong and continuous petroleum diplomacy....Japan [is] a major consuming nation with clean hands in Mideast oil...Japan will not take part in any consortium of consuming nations..."[PIW 5-14-73:5]

U.S. Senator Fulbright warned that our Middle East policy "could well lead to a selective boycott of the United States, coupled with the establishment of exclusive political and business arrangements with Europe and Japan." [PIW 5-28-73:6] [The United States] "could virtually assure access to Middle East oil by changing its policy." [OGJ 6-4-73:37]

Controversy on what Middle East policy ought to be solidified the illusion that there was in fact an "energy crisis," or an "access problem," or that there could be a "selective boycott." In mid-April, Akins proposed a world commodity agreement to set oil prices and ensure availability. [NYT 4-16-73:29]

During the Spring and Summer, King Faisal sent messages through diplomatic channels and through Aramco, warning that oil production might be reduced or at least not expanded if the US did not modify its Middle East policy. [7 Church 504ff.; PIW 7-16-73:5] He also gave a television interview on August 9, as did Yamani on
September 2.\textsuperscript{19}

In July, Kuwait repudiated an agreement signed in January but not ratified, for 25 percent participation, rising to 51 percent in 1982.

"Action was inspired by Iran's getting 100 percent control and Libya's demand for the same...Thus the participation agreements in the four countries [Abu Dhabi, Qatar, Saudi Arabia, Kuwait], only 6 months old, already seem doomed. They were the result of nearly a year's negotiations, led by Saudi oil minister Yamani, and they provided the pattern for a similar agreement in Nigeria." [OGJ 7-16-73:64]

President Nixon in July asked for a cabinet-level Department of Energy, and named a national energy policy coordinator, former Governor of Colorado, who argued that no revenues were high enough to induce the Saudis to agree to big production increases; something extra must be done for them. [WSJ 8-15-73].

"There are sound economic reasons for the Saudis to say oil is better in the ground....[W]e have to take a closer look at what we can do to make it to their advantage to export oil to us." [OGJ 9-10-73:41] [We are] "taking steps to consult with the major oil-producing nations to develop the cooperative arrangements needed to ensure adequate and stable sources of oil in the future." [PIW 7-9-73:5]

This was a self-fulfilling prophecy. For if we believed it and were willing to do something extra for the Saudis, they would be glad to demand it. The buyer is asking to be had who tells a seller, "I know you don't want any more sales, but please just to do me a favor, won't you sell me something?" There are few such buyers because they don't stay in business very long. Not so in government.

During the summer, National Security Council memoranda "called for more

\begin{footnotesize}
\begin{itemize}
  \item But "each time King Faisal made some reference to the use of oil as a weapon against the West, however, one of his aides would hasten to inform United States officials that this was meant only for domestic Arab consumption." [Quandt 1977, p. 160n.]
\end{itemize}
\end{footnotesize}
distance between the U.S. and Israel." [Spiegel 1985, p. 243] At the end of August, Akins was appointed ambassador to Saudi Arabia, and Saudi officials "expressed satisfaction with the Akins appointment." [PIW 9-3-73:10] We cannot tell how they interpreted it.

On September 4, the State Department revealed:

"The Saudis...have been threatening to slow their expansion of production unless Washington modifies its support for Israel. [State] had made a discreet effort to nudge Israel toward rethinking her position....A number of department officials feel that this effort should be continued and intensified because of the United States' growing requirements for Saudi oil...There is a growing recognition in all circles here that some accommodation has to be reached', one official said. 'It will be a settlement less attractive than Israel could have had last month.'" [NYT 9-5-73:1]

The confident tone in the last sentence seemed to presage immediate pressure upon Israel. And the next day, September 5, the President blamed both Israel and the Arab states, and stressed this country's dependence on Middle East oil. [PIW 9-10-73:1]

The pattern of price increases Prices kept rising through September, for the reasons stated earlier: the higher excise tax (government take), and excess demand, which even at the start of the year was mostly the anticipation of the higher tax. (Above, page 20) As fears increased, following Saudi threats, so did demand for hoarding. Worldwide non-Communist crude oil inventories increased by 419 million barrels through end-1973. [IPA 1976, p. 23] But the increase through September must have been much larger. Stocks of nine large OECD countries, excluding Italy, were reduced by 133 million from end-September through end-January. [CIA-IESR 1978] The worldwide drawdown must have been greater. Inventory buildup January-
September, 273 days, must have exceeded 552 million barrels, or 2 million barrels daily. In addition, there must have been substantial buildup of products by consumers; we only know that there was substantial storage capacity. [Burton 1982]

At this time, the great bulk of crude oil moved under long-term contract at previously fixed prices. The excess demand was focused upon only the narrow segment going through open spot markets, and the impact was thus greatly amplified.

Because the concession-holding companies feared they would lose some of their output to "participation" oil, and knew prices were rising, they ceased to sell crude oil to third parties. The latter were forced to go to the governments and bid for the "participation" oil. In May, June, and July, various governments sold to independents at prices in the range $2.39-$2.60 [PIW 6-25-73:1; 7-30-73:1; 8-6-73:Supp.:1]. In a competitive market, volatility up is matched by later volatility down. But the OPEC countries were vigilant to ratchet their take upward to prevent the relapse and make the higher prices permanent. (Below, Figure 6.) The more they did so, the greater the fear and the greater the price increases.

In June, an oilman summed up yet another "supplemental" agreement to increase the take:

"Sometimes I wish we would straightforwardly pay the host governments more money outright, and stop trying to find excuses, principles, and rationales to justify increased payout." [PIW 6-11-73:2]

This bit of common sense is the key to the new developments. At end-July, Iran announced the details of the new agreement with the Iranian Consortium
(above, p. 34). One important feature will prove useful in following developments in 1974: the "balancing margin." Iran was to receive "total financial benefits and advantages...no less favorable than those applicable (at present or in the future) to other countries in the Persian Gulf." [PIW 7-23-73:1]

By mid-August, PIW noted, prices were becoming "unprintable", i.e. so surrounded with special and surreptitious terms as to make even experienced observers unable to compare one with another. [PIW 8-13-73:3] As some in the trade already knew, Yamani had warned Aramco on August 4 that "the next change will be a very large one and not a real negotiation... The companies will have no choice."

[Cable cited in Church Report 148] Soon other countries notified the companies that Tehran was no longer binding. [NYT 8-24-73:1] When on September 6, Yamani announced that the agreement was "dead," the news was already a month old. His views had been coordinated with the other Persian Gulf producers. [NYT 9-8-73:39]

They proposed now to raise government take by changing the schedule of posted prices. Venezuela, Indonesia, Libya, and Nigeria already did so without agreements. But the system shown in Table I remained in place. Nationalization was specifically repudiated by Yamani. [PIW 9-10-73:9]

A special OPEC meeting on September 15-16 fixed October 8 for a meeting with the oil companies to set new price schedules. [NYT 9-16-73:18; 9-17-73:1] But they had not yet agreed "on the precise formula and mechanism." [PIW 9-24-73:2] Before the end of the month, Aramco and Saudi Arabia had already agreed on "a substantial increase" in take per barrel and a speedup in participation, which had
been set to increase gradually to reach 51 percent ownership in 1982. [PIW 10-8-73:1]

Two days before the October 8 meeting, Egypt and Syria attacked Israel. Days later, in the spot markets "one would hardly know there was a war going on." The tone of the Gulf OPEC meeting may have been affected, but the proposals had been prepared beforehand. [PIW 10-15-73:1] Government take on Arab Light was raised from $1.77 to $3.04. (See Table IV.) As one oilman said: "they are no longer even going through the charade of negotiations." [NYT 10-19-73:61] The war put every formal price action on hold until end-December.

THE PRODUCTION CUTBACKS

Threats of cutbacks and embargoes had been voiced repeatedly since the Irwin visit preceding the January 1971 capitulation. On October 16, the Gulf OAPEC (Organization of Arab Petroleum Exporting Countries) nations agreed on an immediate 5 percent production cut per month,

"until the Israeli withdrawal is completed from the whole Arab territories occupied in June 1967, particularly Jerusalem, and the legal rights of the Palestinian people restored." [NYT 10-18-73:1; on Jerusalem, see also [PIW 11-12-73:5]]

A few days later, Saudi Arabia and Kuwait cut production much more sharply [PIW 11-12-73:1]. They were "entirely aware that this program would be very difficult to administer but they are looking to Aramco to police it." They also began classifying consumer countries by degree of friendliness [Aramco cable 10-21-73, 7 Church 515] On October 21, Ambassador Akins addressed Aramco:

"Akins urged that industry leaders use their contacts at highest level of USG [United States Government] to hammer home point that oil restrictions are not going to be
lifted unless political struggle is settled in manner satisfactory to Arabs." [Aramco cable 10-26-73, 7 Church 517]

As in January (above, p.28) the Ambassador was appealing to private parties to change his own government's policy. These two examples are from a very sparse documentary record; we can not tell how many more times he did so. More important, the Ambassador must have informed his own government that the Arabs would not desist until given satisfaction.\textsuperscript{20} This prediction soon proved to be badly wrong. Presumably he had told the Saudis that all or most of their demands would be met. Their expectations were disappointed, and his also. This would account for his later anger at Kissinger. (See Appendix)

The cutbacks were increased in November and consuming countries divided into what eventually became four categories: (1) "Most preferred" (Britain and France) with no set limits, (2) "preferred" with 100 percent of September shipments, (3) "neutral" with reduced shipments, and (4) the USA and the Netherlands remained under "embargo."

\textsuperscript{20} Later in November, King Faisal elaborated a little. "The objectives are complete Israeli withdrawal from all occupied Arab territories, granting of the right of self-determination to the Palestinian people, and affirmation of the Arabism of Jerusalem. ‘Saudi Arabia will not change its attitude of suspending oil exports to some countries and cutting back quantities to other countries except after the fulfillment of these points collectively and in a manner acceptable all Arabs--\textit{no matter how long it takes.}’" [NYT 11-23-73:1, emphasis added]
### Table V.
**Arab Oil Producers' Output Cuts After September 1973**

**Production in Million Barrels Daily**

<table>
<thead>
<tr>
<th>MONTH</th>
<th>SAUDI ARABIA</th>
<th>KUWAIT</th>
<th>OMAN</th>
<th>IRAQ</th>
<th>QATAR</th>
<th>DHABI</th>
<th>LIBYA</th>
<th>ALGERIA</th>
<th>TOT</th>
<th>PCT CUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEPT</td>
<td>8.29</td>
<td>3.24</td>
<td>0.30</td>
<td>0.78</td>
<td>0.62</td>
<td>1.36</td>
<td>2.25</td>
<td>1.12</td>
<td>17.96</td>
<td>0</td>
</tr>
<tr>
<td>OCT</td>
<td>7.72</td>
<td>2.82</td>
<td>0.30</td>
<td>0.78</td>
<td>0.57</td>
<td>1.36</td>
<td>2.46</td>
<td>1.09</td>
<td>17.11</td>
<td>0.05</td>
</tr>
<tr>
<td>NOV</td>
<td>5.89</td>
<td>2.37</td>
<td>0.30</td>
<td>0.80</td>
<td>0.48</td>
<td>1.17</td>
<td>1.77</td>
<td>0.95</td>
<td>13.72</td>
<td>0.23</td>
</tr>
<tr>
<td>DEC</td>
<td>6.40</td>
<td>2.34</td>
<td>0.30</td>
<td>0.81</td>
<td>0.46</td>
<td>1.03</td>
<td>1.77</td>
<td>0.91</td>
<td>14.01</td>
<td>0.21</td>
</tr>
<tr>
<td>JAN</td>
<td>7.26</td>
<td>2.58</td>
<td>0.30</td>
<td>0.81</td>
<td>0.52</td>
<td>1.22</td>
<td>2.03</td>
<td>1.14</td>
<td>15.87</td>
<td>0.11</td>
</tr>
</tbody>
</table>

**MIN PROD (PCT)**

<table>
<thead>
<tr>
<th>SAUDI</th>
<th>KUWAIT</th>
<th>OMAN</th>
<th>IRAQ</th>
<th>QATAR</th>
<th>DHABI</th>
<th>LIBYA</th>
<th>ALGERIA</th>
<th>TOT</th>
<th>PCT CUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.71</td>
<td>0.72</td>
<td>1.00</td>
<td>1.03</td>
<td>0.75</td>
<td>0.76</td>
<td>0.78</td>
<td>0.81</td>
<td>0.78</td>
<td></td>
</tr>
</tbody>
</table>

**SOURCE:** Petroleum Press Service, December 1974
World Consumption taken as 46.4 mbd

**Extent and Impact of Production Cuts**

In Table V, the lowest line shows the minimum production, or maximum percent cutback: Saudi Arabia and Kuwait by 29 and 28 percent; others from 19 to 25 percent. Oman and "radical" Iraq did not cut. By January, production was increasing and indeed January was not a month of cutback, since production was how limited by demand.

To judge the effect of the production cut on the market, the far-right columns are a starting point. The OPEC producers cut by nearly a fourth over the two months November-December. Total lost output was about 340 million barrels. As a foreseeable one-time loss, it was small, easily covered from the inventories already built up (above, p. 37), and from some increased output elsewhere. It was damaging because nobody knew how long it would last, and the Arab producers had scheduled additional reductions, month by month.
Had prices been allowed to rise, perhaps with rent collected by emergency taxes; or had consumption been restricted from the start, the world economy would have suffered from a reduction of between 2 and 9 percent. But prices were largely contractual or controlled, and the force of excess demand was focused on the small proportion of oil which was freely traded. Every buyer and seller at the much lower "mainstream prices" knew that if the cuts continued, those prices would also rise. In addition, OPEC had raised taxes sharply in October, and could be counted on to do so again.

Oil could be hoarded with little downside price risk, and hoarding increased demand all the more. Those with stocks sold as little as possible. Some sought to buy for an immediate black-market gain, others to hold for higher prices soon. Refiners and consumers, who would otherwise need to shut down entirely for lack of fuel, were prepared to pay outlandish prices for oil they did not need. They were seeking assurance they would not soon run dry. Thus the effects were out of all proportion to a loss of at most 9 percent for a short time.21

This lesson too was ignored. The International Energy Agency, set up to

21 [Verleger 1982] has pioneered the analysis of short-term price changes, and the effects of inventory buildup and drawdown, combining rigor with detail. His causal scheme is correct, in my opinion: supply change—spot price change—OPEC price change. But spot price changes reflected the expectation of crude price changes, as well as fear of dearth and of additional output reduction. Hence he has not been able, and it may be impossible, to incorporate them in any causal relation. But this limitation does not affect his policy proposals, which should have been adopted long ago. His demonstration that price changes in the 1970s could not be explained by changes in capacity utilization (pp. 39-45) did not prevent DOE and others from treating it as a basic relation.
mitigate or prevent another such disaster, set up a threshold of 7 percent for declaring an emergency, below which nothing needed to be done. When IEA was in place, the 1979 cutback had the same results as six years earlier. Debate today continues to be in terms of how great the reduction need be to trigger a ponderous machinery whose slow motion will permit the same damage a third time.

The "Embargo" Charade The production cuts were real, and raised prices spectacularly. In the United States, the "embargo" or "crisis" endures as a folk memory: mile-long gasoline lines. But these shortages were entirely made in the USA, by price controls and allocations. The selective "embargo" never happened.

The reality of a selective boycott was questioned from the start. [NYT 10-18-73:1] [LM 10-19-73] But the Times editorial [10-18-73] did not take its reporter's hint. The Wall Street Journal was properly skeptical. [Editorial 10-19-73] But the selective boycott was official truth in the State Department, and Secretary Kissinger, as he later admitted, spent time and political capital in the pointless effort to get the Arabs to withdraw it. (Below, p. 61)

As predicted (above, p. 31) non-Arab producers did well by doing good, diverting oil to "embargoed" countries. The international oil companies deserve much credit for doing the complex logistics of swapping customers [FEA/Church 1975], thereby reducing transaction costs, but not for the inevitable result: everybody suffering roughly the same reduction.

Comparisons cannot be precise, but we can use two independent measures. One is to compare January-April consumption, 1973 and 1974. The United States lost
7 percent, Japan, guilty of "odious neutrality," and not called "friendly" until December, actually gained 1 percent, Western Europe lost 11 percent. [FEA/Church 1975, p. 8] Another measure is the draw-down of crude oil and product inventories in nine large consuming countries, from end-September 1973 to end-March 1974. The reduction in the USA was four percent. Three countries, including Japan, drew down less; five drew down more, including Britain (11 percent) and France (12 percent). [CIA-IESR 1977, p. 20] Since the "most preferred" French and British did worst, perhaps that proves it does not pay to be taken for granted. But the simplest and best theory is that everyone suffered about equally from the production cutback, and that the variations are only the noise in the statistics.

Years later, Yamani said that the embargo "did not really imply that we could reduce imports of oil to the United States... The world is really just one market. So the embargo was more symbolic than anything else." A former United Arab Emirates ambassador to Britain said: "There was no embargo.... It was a lie we wanted you to believe." [Robinson 1988, p. 96] Many still believe it.

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22 It may be more accurate to calculate as follows, defining expected 1974 consumption as January-April 1973 increased by the average rate of increase during the previous five years:

<table>
<thead>
<tr>
<th>Area</th>
<th>Actual/Expected Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>93/105 = .886</td>
</tr>
<tr>
<td>Japan</td>
<td>101/113 = .894</td>
</tr>
<tr>
<td>Western Europe</td>
<td>89/108 = .824</td>
</tr>
</tbody>
</table>

23 "Much more likely [than an indefinite Arab shutdown] would be a gradual resumption of exports to friendly countries in return for a supply of essential commodities." [Akins 1982b, p. 6]
The Frightened Consuming Nations

The consuming countries obviously believed that "access" and "good relations" were all important, and tried to make friends with the tiger so he would go eat someone else.

"Arabs don’t have to police their own boycotts. Sycophant nations are doing it for them." [WSJ 11-6-73:14] "Aramco acts as cutting edge in Saudi Arabians’ U.S. embargo", [NYT 11-4-73:C1] The EEC nations violated their constitution, the Treaty of Rome, which forbids barriers to the movement of goods.

"The French and the British feel they have a privileged position in the Arab world and ... they fear the Arabs would interpret European cooperation as confrontation." [NYT 11-5-73:61]

Hence they opposed any joint action by the EEC or by the OECD. [NYT 11-5-73:61] The British Secretary for Trade and Industry said there was no need for rationing because he had "assurances from Arab states." [NYT 11-6-73:49]

Shortly thereafter, "the French were shaken" when Algeria announced a cut in deliveries, while "in Britain the government was slowly beginning to admit that the oil crisis was real and that it can’t be ignored simply because of Arab ‘assurances’." [OGJ 11-12-73:91] The cut in British deliveries embarrassed the government, "which ... had received assurances from Arab countries." [POPS 11-20-73] The oil companies informed the French government of a 10-15 percent cut in oil deliveries.

"This comes as an embarrassment to the French government. [Oil was going] "to other countries in short supply, where, as a result, prices are higher. The Netherlands, for instance, ...is getting more non-Arab oil, some of which could have been destined for France." [NYT 11-22-73:61; and P. Simmonot in LM, same date.] "But official France has been pleased with what it calls its ‘privileged position’ in the Arab world, and has taken the lead in persuading other European countries to endorse pro-Arab diplomacy as the best defense against the ‘oil weapon’." [NYT 11-24-73:1]
The French government was "convinced that its special ties with the Arabs should protect it from shortages imposed on "neutral" countries." [PIW 11-26-73:7] There was also the hope that the "special ties" would procure for them a disproportionate share of export and contract business. President Pompidou appeared to have talked of little else but French exports during a meeting with King Faisal in May 1973 [LM 5-15-73], but professed to be "shocked" that anyone would think exports had much to do with his Middle East policy. [LM 11-19-73] At the end of December, "French report big deal for Saudi Arabian oil." [NYT 12-25-73:37]

On November 19, at a new EEC meeting, "Dutch appeal for help, but the reply is silence." [NYT 11-20-73:9] The next day, the Dutch warned they might restrict natural gas exports "unless oil moved freely within the Common Market", and they "emerged apparently satisfied." [NYT 11-21-73:12]

As for the United States, Yamani waited for the cold:

"This winter, when there is a shortage of fuel in the United States and your people begin to suffer—the change will begin. Americans are not used to be uncomfortable." [NYT 11-7-73:11]

Three days later, Ambassador Akins

"indicated that fuel supplies to the East Coast of the United States would become critically short this winter if Arab oil supplies were not increased 'in a matter of days'." [NYT 11-10-73:12]

This was far-fetched. Nothing could take effect within days. A voyage from the Persian Gulf to the U.S. East Coast takes 30 days. Moreover, electric power companies held about 58 days' supply of fuel oil at end-1973 [DOE: MER, 8-89:81]. If their supply were cut by e. g. one fifth (twice the actual case), stocks would last 288
days, not to mention the possibility of switching to coal, or of buying power from coal- or gas-burning utilities.

Moreover, product shipments like heavy fuel oil were not controlled like crude. Hence, the Arab exporters resolved at a secret meeting in late November to cut off shipment to the Caribbean and other trans-shipments points. Only later did this action become a matter of public record [OGJ 12-10-73:48], but it was known earlier to insiders.

In raising the false alarm of supplies "critically short...in a matter of days" the Ambassador doubtless had no intent to deceive. But nobody in the U.S. government ever called him to account for a statement so wildly untrue. They were concerned with something they thought more important:

"[A] very high official who is a policy maker in this area [said] ... he feels King Faisal...at the last minute would prevent any serious economic harm from being done to this country because he is at heart a friend of the United States." [MP, 11-25-73]

In Japan, the charge of "odious neutrality", must have struck MITI Minister Nakasone very hard in view of his past disengagement from any common front of consumers (above, pp. 34, 44), and also because Japan had for years openly cooperated in the Arab boycott of Israel. [NYT 4-21-68:20] But they now refused to break diplomatic relations with Israel, or cease trade, or extend military aid to the Arabs "in return for a stable oil supply." In making these demands, the Arabs "appear to have been influenced by their success in recent years in enforcing a boycott [by Japan against Israel]." [NYT 11-9-73:13]

Perhaps a few Japanese began to see that those who try hard to please will be
told to try harder, that "it is very easy to apply pressure to and manipulate Japan."

24 [Kimura 1986, p. 75] In fact, by March, when the Arab producers classified Japan as "friendly", provided they continued current policy, the "embargo" and the production cutback were both gone. The EEC (except Holland) had been accepted as "friendly" five weeks earlier.

During December, Yamani and the Algerian minister Abdesalam toured Europe like visiting royalty, and conferred with EEC representatives in Copenhagen. At a special meeting with Dutch representatives, they asked for adherence to their previous demands plus "a special gesture", both of which the Dutch refused. [NYT 12-2-73:12] They held a press conference which "reeked with ridicule and defiance of Europe" [OGJ 12-24-73:22], drew much attention, and embroiled the EEC. The British and French proposed resolutions which the West Germans and Dutch opposed. [LM 12-18-73] The small powers regarded Pompidou and Heath as not "good Europeans", and were "convinced that M. Pompidou had underhandedly rigged [manigancé] the Copenhagen meeting in order to force their hand." [LM, "Les Malaises de l'Europe", 12-18-73]

24 History repeats itself. See item "Japan placed in a dilemma by an offer from Saudis to guarantee oil supplies" [WSJ:A, 8-28-88:10] which has an uncanny resemblance to the offers made to the USA in 1972 (above, page 26), offering to guarantee supplies to the USA.

In 1988, "Foreign Minister Yoshihoro Nakayama said oil importing countries must begin preparing now for a crude oil crisis. Japan, which imports 99.7% of its oil is consolidating its foreign relations to secure future oil supplies..." [WO 11-88:13]

In 1990, the "Institute of Middle Eastern Economics, a Japanese think tank, called on Japan's government to take legislative steps to extend official development assistance to Persian Gulf nations. It urged the government to follow its own policy in securing Middle Eastern oil supplies as non-OPEC supplies are exhausted early next century." [OGJ 2-19-90:35]
Italy kept quiet throughout. By end-December, Italians were publicly asking why they were not recognized as friends "although [Italy] had been trying so hard to earn that accolade....[with] 'a new foreign policy' favoring the Arab countries in the interest of undiminished fuel supplies." [NYT 12-31-73:3]

The end of the production cutbacks As early as November 9, despite the acceleration scheduled for December, there were reports "that the present cutbacks in oil output are the limit." [NYT 11-10-73:14] On November 11, Yamani sent a message to Kissinger which was "not official in nature", asking for a commitment to restoration of the 1967 boundaries. On November 17, King Faisal demanded a denial of Israeli sovereignty over Jerusalem. On November 18, a Saudi aide told Kissinger the Saudis would modify the embargo if there was at least some significant Israeli withdrawal. [Kissinger 1982, p. 878] On November 22, the Saudi Foreign Minister told Ambassador Akins that the production cuts and embargoes were really meant to be helpful to the United States, in making it easier to get concessions from Israel.

Aramco had refused to supply American armed forces. [7 Church 514][Church Report 150][NYT 12-18-73:5]

"Akins suggested [to the Saudis] that we might be mollified if oil deliveries to the Sixth Fleet were resumed and the next 5 percent production cut abandoned." [Kissinger 1982, p. 880]

A Kissinger cable stopped this. On November 25, President Nixon

"was leaning toward the idea of sending a personal emissary to Riyadh to urge a lifting of the embargo and give assurances as to our conduct at the upcoming Geneva conference." [Kissinger opposed the idea, and it was dropped.] [Kissinger 1982, p. 880]
A last demand for at least the start of "total withdrawal" was made by the Arab oil ministers on December 8. This was the last of the "plethora of statements."

[Kissinger 1982, p. 883]

As for cutbacks: on December 4, the Saudis canceled the additional 5 percent reduction scheduled for December. [WSJ 12-5-73:3] No reason was given. Perhaps it was continued high-level production by Iraq, as well as by Iran, which had rebuffed Arab demands both for lower production and for expulsion of Iranian Jews. [NYT 12-18-73:61]

It was becoming clear that the shortages were not nearly as acute as feared. West German inventories actually increased during the first half of December, and a survey of LeHavre, Rotterdam, the Thames estuary, Milford Haven, Genoa, Hamburg, and Wilhelmshafen, showed that unloading in European ports also increased. It was said that the crisis had been exaggerated "by companies looking for high price levels."

"Information about actual flow of oil is a tightly guarded secret of the multinational oil corporations. These have managed to install a de facto system of oil sharing, which governments themselves have not been able to agree to, insuring that countries such as the Netherlands, on the Arabs’ total embargo list, continue to get adequate supplies." [NYT 12-22-73:73]

By the end of the month, the diversion to the Netherlands was clear. Only the information blackout had delayed general recognition. [NYT 12-31-73:27] In the United States, "Tankers line up off East Coast, seeking dock space to unload." [NYT 12-29-73:1] But there was no support for the story that the oil companies had kept tankers on the high seas, waiting for the expected price rise.
In Washington, Yamani said production would be increased "step by step" with Israeli withdrawal from occupied Arab territory. [NYT 12-6-73:9] Shortly thereafter, he was on NBC's "Meet the Press." His most important statement was:

"We were producing at a much higher rate than what we should for our economy. And that was a sacrifice on our part. This sacrifice should be appreciated by the whole international community so we can continue sacrificing, continue accumulating a surplus and losing money. We are depleting our natural resources...If we have to produce more, then this is because of you, because we have to please you and help your economy." [PIW 12-17-73:1]

In other words, Saudi Arabia was subsidizing the world economy, and was owed something in return. He said this without a smile, and knew he would be believed, because he had often heard it from Americans.

On December 25, the Arab oil ministers met in Kuwait. As noted earlier, they had on December 4 canceled the additional 5 percent December cutback. For January, they now ordered instead a 10 percent increase. This would still have been about 3 mbd or 15 percent below the September peak. But more important: "they decided to export to friendly countries according to their actual needs, even though this is more than the level of September 1973." Japan and Belgium were added to the "friendly" list. [Text of statement in NYT 12-26-73:65] This meant an unlimited increase, which leakage and diversion of non-Arab oil would spread to all.

That ended the production cuts. There was no reference to the original demands of withdrawal and Palestinian rights. Indeed, after the first week in December one cannot find any in our periodical sources (London Economist, New York Times, Oil & Gas Journal, Petroleum Intelligence Weekly, Wall Street Journal). They could not point to anything accomplished.
Yamani had said that "the embargo would be lifted when ... the United States guaranteed Israel's acceptance [of] the principle of withdrawal from Arab lands...[and] that production would be increased in steps parallel to the actual Israeli withdrawal. In fact, Israel has not accepted the principle... Why then today's announcement?" [NYT 12-26-73:1]

The Arabs' political demands had had an effective life of about two months, from October 16 to mid December. As for the embargo, Secretary Kissinger was to write, years later:

"The structure of the oil market was so little understood that the embargo became the principal focus of concern. Lifting it turned almost into an obsession for the next five months, partly because Nixon thought that it lent itself to a spectacular that would overcome Watergate. In fact, the Arab embargo was a symbolic gesture of limited practical importance...[Kissinger 1982, p. 873, emphasis added]

"So little understood"—by whom? In theory, a selective embargo could not work. A former OPEC Secretary-General, not to mention less important folk, had publicly said so. The 1967 attempt had been such a notorious failure that to explain it one needed a myth of Saudi benevolence. (Above, p. 32) But for nearly three months after the end of the cutbacks, which had done the damage, and for two subsequent months of excess supply, the U.S. Government still worked hard to cajole the Arab nations to stop the "embargo."

**PRICES DURING THE "EMBARGO"**

The price evolution and the new price floor The October 16 schedule of government take at $3.05 set the price floor, irrespective of changes in supply and demand. The market process could only affect the margin over (excise tax + cost). It is impossible to give any coherent account of the margin after October 16.

The less important reason is the extreme thin-ness of the market under very
disturbed conditions. The great bulk of the oil moved under long-term contracts, and all of the excess demand was focussed upon a small part of supply. The resulting price is valid, but not reliable as a statistic. In such disorder as existed in late 1973 and early 1974, the dispersion makes it incoherent.

The more basic reason is the one PIW noted at the start of 1973 (above, p. 20) and which became much stronger as tension built up. In general, the anticipation of higher price floors and prices creates a speculative demand for oil, over and above demand for refining and consumption. As the floor is raised again and again, the next increase seems increasingly likely, and the downside risk in overbuying becomes very small. The prophecy is self-fulfilling, and because of expectation, the price effect arrives before the cause.

This happens of course in any market, but any change which exceeds what the supply-demand balance requires is reversed, usually in a short time. Indeed, the most important skill in playing any market is being able to tell how soon the reversal is coming. But the concern of the OPEC nations (Arab and non-Arab alike) was to ratchet up the floor to assure that price increases would not be transitory.

[The first effect of the October 16 increases was that] "the spot market dropped dead last week...as sellers decided to hang on to every barrel they could." [PIW 10-22-73:3] Oil companies faced "an endless ratchet....A full pass-along of the recent cost [i.e. tax] increases would boost market prices to a new plateau, presumably touching off another round of posting hikes--and so on." [PIW 10-29-73:7]

The trade complained that "spot oil markets distort Europe's true pricing picture...Refiners have avoided buying spot products because of high prices, and don't want to sell product because of the crude shortage." [PIW 12-3-73:5] In mid-
December, Iran auctioned some crude oil at more than $17 per barrel. This came after reports, which were well founded, that there would soon be an unprecedented jump in government take. [PIW 12-17-73:1]

"Secretary Kissinger sent messages on December 22 to all OPEC governments "warning strongly against another rise in prices." 25 The next day, December 23, the Persian Gulf OPEC nations announced that Saudi Light of 34° would be the official benchmark or "marker" crude oil, and that the take would rise from $3.04 to $7.01. The meeting "focused this time not on posted prices...but on the actual governmental "take" (taxes and royalties)." From the $7 tax was derived a posted price of $11.65. [PIW 12-31-73:1] "Participation" was not mentioned, but had already been demanded in mid-November [PIW 11-19-73:1] Perhaps that was why the Kuwaiti minister predicted even higher prices in the Spring. [NYT 12-23-73:31]

There was shocked surprise in the consuming countries.

"We felt misled by weeks of exchanges with various Arab leaders. The huge rise in prices was made doubly wounding by being so totally unexpected ... Yamani, in conversations with Akins, predictably blamed Kuwait, Abu Dhabi, and Iraq..., as he had previously blamed Iran. [Nixon sent Faisal]...an unusually stiff message." [Kissinger 1982, p. 890]

On January 2, Kissinger said no countermeasures were planned "at this moment." On January 7, Secretary of Defense Schlesinger warned of the possibility of reprisals, producing "a storm in the Arab world." [Ibid.] Many more such warnings would be made, none taken seriously. [Below, p. 85]
Years later, Kissinger would be scornful in calling both Iran and Saudi Arabia "specially dexterous. Whoever we approached made a convincing case that the other was the culprit...One was left wondering how prices could ever rise in the face of so much reluctance." [Kissinger 1982, p. 888; and also 865]

But the Shah had talked himself into legend as the price hawk. His "new concept," that the price of oil should be equated to the cost of competing forms of energy [NYT 12-25-73:31] [PIW 12-31-73:3], was not so new: the State Department was a year ahead of him. [Akins 1973, p. 464] But had this idea - of a rational monopoly price - been taken up, debated, and purged of its error (above, p. 30 and Figure 8) both the cartel and its customers might have been better off.

**TAXES OVERRIDE SUPPLY-DEMAND: FIRST HALF 1974**

As noted above, when the Arab producers lifted all limits on exports to "friendly" nations, they ended the production cut which had starved the market and caused prices to explode. We now try to trace the course of prices in 1974, by the same sequence as earlier. First, we examine the balance of supply and demand to see whether prices would, under competition, be rising or falling. Second, we try to make out the actual sequence of prices, above all the prices on term contracts.

**Supply/Demand** By the third week in January, "there are unmistakable signs that some buyers are getting increasingly wary...particularly where prices are fixed beyond the immediate future." [PIW 1-21-74:3] In late January, spot prices "suddenly nosedive[d] around the world...Tremendous quantities of oil suddenly have come into the market place -oil we didn't even know existed 10 days ago." [PIW 2-4-74:1]
February OPEC production was down by 9 percent [PE 11-74]. By March, when OAPEC officially made West Germany and Italy "friendly" nations, and then rescinded the "embargo," the OPEC producing nations were openly worried about excess supply, and agreed to study the Algerian proposal to prorate output. [PIW 3-25-74:3] By April 15, Saudi Arabia revealed it had 700,000 daily barrels of excess capacity. [PIW 4-15-74:1] Total OPEC shut-in capacity that month was later estimated at 4.5 million barrels. [PIW 7-8-74:1]. By August, according to a study made by Chase Manhattan for the Federal Energy Administration, OPEC capacity was 37.1 mbd, production only 30.8, so the apparent surplus had widen to 6.3 mbd. [PIW 10-14-74:7] In June, markets for Middle East and African crude were "oversupplied" [PIW 6-17-74:2] and "crude goes begging in world markets as oversupply persists." [PIW 6-24-74:1] By late August, it was expected that production had to decline even more, because the storage system was full. A production control program would solve the problem, "but deep concern is expressed over OPEC's flexibility in 'fine tuning' output in line with seasonal demand variations." [PIW 8-26-74:1] In the years since, the problem has never been solved.

The course of taxes and prices If prices had been ruled by supply and demand, there would have been a spectacular price collapse in early 1974, and the price would have continued tumbling. Nothing of the kind happened. Admittedly, it is difficult even to discern what the price was. One catches only brief distorted snapshots. Not until early May could PIW report that "crude prices drop as the spot market comes alive again." [PIW 5-6-74:1]
In 1973, the model of market behavior had been a ratchet: create a temporary shortage to drive up spot prices, and then hold that level when the shortage ends. In 1974, however, despite the huge surplus, prices were not held but actually raised. This became evident early on. Under "participation" agreements, the governments were entitled to 25 percent of the oil, but they took only small amounts. The great bulk was sold back to the companies, at a price which was some fraction of the posted price. This added more parameters to the scheme, but did not dictate the result. Let us restate Table I under the new conditions:
Table VI.
EXCISE TAX ("GOVERNMENT TAKE") ON SAUDI LIGHT 34°, 1973-74

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>Government Equity Share</td>
<td>0.25</td>
<td>0.60</td>
<td>0.60</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>Posted Price</td>
<td>3.01</td>
<td>5.12</td>
<td>11.65</td>
<td>11.65</td>
<td>11.65</td>
<td>11.25</td>
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<tr>
<td>R</td>
<td>Royalty rate (% PP)</td>
<td>0.125</td>
<td>0.125</td>
<td>0.125</td>
<td>0.125</td>
<td>0.125</td>
<td>0.2</td>
</tr>
<tr>
<td>T</td>
<td>&quot;Income tax&quot; rate</td>
<td>0.55</td>
<td>0.55</td>
<td>0.55</td>
<td>0.55</td>
<td>0.55</td>
<td>0.87</td>
</tr>
<tr>
<td>C</td>
<td>Accounting cost</td>
<td>0.10</td>
<td>0.10</td>
<td>0.12</td>
<td>0.12</td>
<td>0.12</td>
<td>0.17</td>
</tr>
<tr>
<td>B</td>
<td>Buy-back price</td>
<td>10.83</td>
<td>10.83</td>
<td>10.66</td>
<td>10.66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>Government take, $/barrel</td>
<td>=[(1-E)(P(R+T-RT)-TC)+EB]</td>
<td>1.77</td>
<td>3.05</td>
<td>7.00</td>
<td>7.9</td>
<td>9.30</td>
</tr>
</tbody>
</table>


By changing lines E, P, R, T, C, or B, the final X could be increased to any desired number. The price history of 1974 is the gradual change in each of the six parameters to raise the final weighted take to about $10.66. An increase of 50 percent, in a glutted market, is a memorable achievement, more impressive even than $4 by the 1973 ratchet.

Further increases begin The agreement between Iran and the Consortium bypassed the clutter of Table VI, and provided simply a government take figure, with a "balancing margin" to bring it up to whatever was being achieved on the western shore of the Gulf. The Iranian Finance Minister Amouzegar proposed a simple price structure: government take of $7 plus 12 cents cost plus a 50 cent company margin. Then $7.62 would be the Gulf fob price for the basic 34° crude oil. But some of the other Gulf governments
were proposing an increase by way of participation, and the apparent $7 might turn out to be $7.60. [PIW 1-7-74:6] The price would then have been $8.10.

By the end of the month, some indicators of price trends began to appear. A large barter deal for Iranian oil was at only $7.45. But commercial crude buyers were "getting walloped with massive increases" imposed by the multinational companies, to around $8.32 on Arab Light, with "... virtually no explanation from major suppliers" as to the government take and company markup composing the price. [PIW 1-21-74:7] But the companies professed to be baffled.

"'We simply don't know what to charge our customers because we don’t know what we’re expected to pay the governments. ... So we have to guess at a price.' [PIW 2-4-74:1] 'The companies have sold literally hundreds of millions of barrels of Middle East oil since October 16 without knowing to this day what margin of profit in the fourth quarter of last year.' [Id., p. 10]

Kuwait held auctions for small amounts of participation oil which it had taken in kind. At first, prices ranged up to $20. But by the second week in February, only 25 percent of the oil offered was spoken for, bids were between $8.50 and $10.00, and all bids were finally rejected. [WSJ 2-14-74:2; 2-22-74:2; PIW 3-4-74:3] Disregarding the auction, Kuwait fixed their contract price on sales to Gulf and BP, (Table VI, line B) at a level which increased the take, we do not know quite how much. But it must have been at least appreciable, because it raised the balancing margin and total take in Iran. [PIW 3-11-74:1,3] At about this time, Saudi Arabia was reported requiring 93 percent of posted price for buy-back oil, as assumed in Line B above. [NYT 2-25-74:39]

In late February, Secretary Kissinger left on his fourth Middle East trip in as many months, and was well received.
"Even King Faisal...has treated Mr Kissinger well...As a gesture to Mr. Kissinger, Saudi officials waived their normal visa requirements ... allowing Jewish newsmen in the party into the country. [They had refused to do this for a French group with Foreign Minister Jobert.] [NYT 2-25-74:1]

It is clear in all these reports that the "embargo" was still atop the agenda, and the good will to the Secretary stopped short of giving him what he wanted most: its revocation.

**Government take rises to near $8, prices to $9** Since late January, the Saudis had been saying that the price was too high, and should be reduced. In Japan, Yamani said that King Faisal "will take very important steps" toward reducing the price. [NYT 1-28-74:1]

The very important steps were to send all Persian Gulf producers personal letters to persuade them to cut oil prices.[NYT 1-30-74:18]

In early March, Yamani expressed "the hope that he may win support within OPEC for his desired reduction in the price of crude", while the Shah of Iran insisted that the price would rise. [PIW 3-4-74:4] "[S]peaking for King Faisal, [Yamani said] that prices are now too high for the good of the oil producers, as well as for the health of the world economy." [NYT 3-5-74:43]

In early March, the level of government take was still mentioned as $7 by Kuwait oil officials. [NYT 3-5-74:43] By the end of the month, transfer prices for Arab Light had moved up to $9.25 - $9.30. [PIW 3-25-74:5]. Some oral accounts to the writer put government take at this time at $8. The OPEC Secretary-General said it was "$7.50 or so" [WSJ 3-28-74:13].

In February, Secretary Kissinger convened a meeting of producer and consumer states. He "insisted that the object of the conference was to promote long-term price and supply
agreements...that meet interests of both buyers and sellers. ...The oil nations would permit some payments [for oil] to be deferred in return for agreement by consuming nations to long term purchase contracts with guaranteed price minimums that would give them high incomes 10 or 15 years hence." [WSJ 2-8-74:1]

Long term agreements for "access" and fair prices have been a perennial wish ever since, to close "the gap": "Decades of inaction brought energy gap." [Headline NYT 2-10-74:1]

A week later, the U.S. and Saudi governments announced a program of economic cooperation and weapons supply. [NYT 4-6-74:1]

"It appears precisely tailored to Saudi Arabia's position...: [meeting] increases in world demand, beyond its own financial absorptive capacity, will depend on its ability to industrialize and diversify its economy." [PIW 4-15-74: 1]

The rationale was clear: only with special incentives, would the Saudis expand output. Then at the UN Secretary Kissinger "warned commodity producers against banding together to raises prices" and called for cooperation. "To maintain stable prices for raw materials...an international group of experts [should] work with the United Nations in surveying resources and developing an early-warning system for scarcities and surpluses." [NYT 4-16-74:1] The world needed "an expanding supply of energy at an equitable price." [WSJ 4-16-74:3] Actually under way was a flow of arms and goods to the oil producers. [NYT 4-25-74:1]

RISING TAXES OVERRIDE MASSIVE SURPLUS

In April, markets continued weak [PIW 4-22-74:5, 7], but only in early May could it be said that "crude prices drop as spot markets come alive again." [PIW 5-6-74:1, emphasis added] It is easily forgotten, but up to this time there was no set of crude oil prices which one could point to as prevailing or normal or as equating demand and supply even for the moment. A contract price for Arab Light 34° was at $9.50, not much increased over late
March.

Late in May there were rumors of a Saudi crude oil auction in the summer. [PIW 5-27-74:1] Soon thereafter another Kuwait auction was another dramatic failure: Kuwait warned buyers that failure to bid would shut them out in the future. [PIW 6-10-74:5] Not dismayed by weak demand, the OPEC nations were now discussing a proposal to jump the 55% tax rate to 87 or even 95 percent. It was expected to add another $1 to the price, and Europe was "gravely concerned." But Saudi Arabia "won't support any tax increases—at least not at this time." [Id: 2]

The June boost in Saudi take In early June, Yamani called for a producer-consumer "practical dialogue' on energy, raw materials and technology." [NYT 6-4-74:47] Shortly thereafter, "Milestone Pact is Signed by U.S. and Saudi Arabia", setting up a joint economic commission and one on Saudi military needs, which American officials "hoped...would provide Saudi Arabia with incentives to increase her oil production, and serve as a model for economic cooperation between Washington and other Arab nations. American officials... have made no secret of their hope that Saudi Arabia will take the lead in increasing production of oil...and that way help bring about a drop in the world price." [NYT 6-9-74:1]

In an interview, Prince (later King) Fahd said "We wish the price of oil to go down."

"The atmosphere among the Arabs at the Saudi Embassy was close to euphoria last weekend....There was a great throng of top American Government officials...together with many private American industrialists and bankers. Said one American banker: 'Fantastic--imagine it, the great of the world coming to kowtow to the Arabs." [NYT 6-10-74:47]

The kowtow, knocking one's head on the floor before the Presence, must be accompanied by rich gifts. The Saudis assured it two days later, announcing that their share of ownership of Aramco would rise from 25 to 60 percent, which had the immediate effect of raising the take by substituting participation oil for equity oil. [NYT 6-13-74:65]
Thanks to the "balancing margin" clause of its July 1973 agreement, Iran's increase "immediately followed the Saudi Arabia-Aramco interim agreement on 60% participation." At this point, spot prices were at the year's low--so far.

The next OPEC meeting followed, at Quito, in mid-June. There was "a frosty reaction" to an EEC message asking for cooperation, and for no more tax/price increases. Yamani said: "We won't join them in increasing prices or taxes." The Saudis "disassociated" themselves from the meeting's increase of 2 percent in the royalty rate, and let it be known that "the long-anticipated auction offering of a large volume of state oil" would be held before September. [NYT 6-18-74:1] They wished that the United States would "do more than it has until now to persuade Iran, an ally of the United States, to accept price restraint." [NYT 6-19-74:1]

By the next week, the meaning of the Saudi participation had begun to be understood.

"What's disturbing Washington and other western circles is that...the net result could be another increase in world crude oil costs....'It's strange indeed', notes one Washington energy official, 'that of all countries Saudi Arabia, which has been advocating a cut in world crude prices...should now be the one to propose an approach that would have the net effect of increasing oil costs further, even though not designed for that purpose." [PIW 7-1-74:1]

The new participation steps also bothered the Aramco companies. They had not been disturbed about 100% Saudi ownership because they did not believe legends about Saudi desire for lower output, and expected a big Aramco expansion, requiring their investment and profit. [PIW 6-17-74:1] "They would at least get the one thing that concerned them most: privileged access to long term crude supplies at special prices." But if they were to
buy at government prices, there was nothing in it for them. [PIW 7-1-74:1]

The negotiations would drag on for years. Saudi Arabia could dismiss the Aramco companies, and replace them with others. But because the Saudis expected to expand output, the loss of trained experienced personnel, and of corporate memory would involve higher costs. That was the companies' bargaining asset. In contrast, Kuwait expected only to maintain production at the two operating fields, and was therefore willing to allow BP and Gulf much less.

At mid-year, excess capacity (not surplus production) was 4 million barrels daily. Undersecretary of the Treasury Bennett so testified before the House Banking and Currency Committee, in explaining why prices were under pressure. Some in the producing countries were urging new sharp cutbacks, which should "clearly be regarded by the United States and by all other consuming countries as an unfriendly act." At someone's urging, he later changed the last phrase to "a counterproductive measure." [NYT 7-10-74:47] Actual production was estimated by oil companies at 2 to 3 million barrels daily more than consumption [NYT 7-1-74:45]; by an Arab oil exporter at up to 4 mbd. [NYT 7-16-74:45].

A long summary of the mid-year situation appeared in a Wall Street Journal report. [WSJ 7-8-74:1] To the consuming nations, the Saudis were seen as the good guys, the lonely fighters for lower prices.

"But a different picture emerges from conversations with sources close to the cartel and with key OPEC insiders. The cartel is banking on Saudi Arabia to prop up petroleum prices, not bring them down...[T]heir concern about the world's economies hasn't overridden their desire for oil revenues...OPEC's major problem right now [is]...how to keep oil prices from crumbling...

There was a surplus before the Arab oil embargo of last October-March; ...The surplus is even greater today....
When Saudi Arabia takes over Aramco] Sheikh Yamani has confided to others in OPEC that he will seek $10.83 a barrel...The average cost of Aramco crude is $9.35... The Saudi settlement will quickly become the pattern for other Persian Gulf producers and, eventually, most other OPEC member nations....

Some observers doubt that he can swing so high a price as $10.83 on such large volumes of oil. But who knows?...In any case, other OPEC officials wish Sheikh Yamani luck, for they expect that whatever price he negotiates will become the new benchmark--and floor--for new "market" prices established by the other OPEC countries.

What isn’t generally understood is the fact that, in a time of oil surplus, the cartel was able to make the increases stick only because of an artificial shortage created by Saudi Arabia’s orchestration of the Arab oil embargo...Saudi Arabia, the public advocate of lower oil prices, could singlehandedly bring down oil prices by stepping up production...by at least 800,000 barrels a day."

But official opinion was unchanged. In mid-July, Treasury Secretary Simon was convinced:

"that oil prices will come down [because of] the decision by Saudi authorities announced during the Simon visit to Jiddah to auction off state-owned oil next month for the first time." [NYT 7-15-74:43]

The Saudi crude oil auction While waiting for the auction, various OPEC members were reported increasing royalty rates. [PIW 7-15-74:2] Kuwait had been disappointed with an auction held in early July. [NYT 7-4-74:25] So had other producers. [OGJ 7-15-74:28]

[PPS 8-74:293] Kuwait put it to their local producers Gulf and BP: although prevailing term contract prices were $9.50 to $10, they must pay $10.95 for participation crude (Table VI, line B), or be cut off entirely. [WSJ 7-19-74:3]

The State Department scolded Gulf for giving in. [NYT 7-19-74:47] But Saudi Arabia, where the weighted average take had been around $9.27, was preparing to demand a single flat price, and hinting it might go as high as $11.05. The expected increase would be matched automatically in Iran through the "balancing margin" clause. [PIW 7-22-74:1] In
any case, "the question of which way oil prices will go will not really be determined until Saudi Arabia disposes of its participation oil." [NYT 7-20-74:41]

At end-July, "Saudi Arabia's big crude oil auction [is] now expected soon...[It] will be a real auction, without specifying any minimum price." [PIW 7-29-74:1] The offer would be 1.5 mbd, for at least 4 and possibly as long as 16 months. [PIW 8-5-74:1] The strategy sketched in the Wall St. Journal report seemed clear: if the auction price exceeded the current buy-back price (Table VI, line B), it would become the official price for all oil sold when Aramco was taken over 100 percent. "The scenario could actually lead to sharply higher prices for oil." [NYT 7-30-74:43]

Most of August was quiet, revealing more about attitudes than about the market. Japan advanced Iraq $250 million interest free for 7 years, then for 18 years at 4 percent; in addition to loans from commercial banks at below-market rates, and technical assistance in various industrial projects. In return, Iraq was to supply 1.12 billion barrels over 10 years. Price was not mentioned. [NYT 8-17-74:29] At a large (2,500 delegates) UN World Population Conference, after family planning was denounced as "genocide upon poor Third World nations", and a paper calling overpopulation a serious problem was denounced for "Hitler-like statistics," a resolution called for a New International Economic Order by "ensuring the equitable distribution of world resources, by eliminating the...exploitation perpetrated by capitalistic multinational corporations." [WSJ 8-23-74:14]. This echoed the April UN Special Session on Raw Materials.

In Washington there was worry that the arms sales to Iran were being matched by sales to its neighbors, making the whole Gulf a more dangerous place. But the officials
involved said it was to obtain "access" to oil, and "insist that America's need for Persian Gulf oil gives them little choice." [WSJ 8-24-74:1]

In mid-August, the Saudi auction was "postponed." As the trade saw it, the really important question was whether there would be a net increase in output. If the auction offerings were merely subtracted from Aramco's liftings, this would "negate the [Saudi] government's announced aim of lowering prices." But "world price of oil is harder than ever to figure today...The consensus: it's almost impossible to sort out the world oil price structure at the moment" because there were many types of open-market sales, which in turn differed from State oil deals. And for any given company it depended on the proportions of equity oil at government take plus cost, and participation oil at a higher price. [PIW 8-12-74:1,4] In late August, the average or blended government take at the Persian Gulf was around $9.50 [PIW 8-19-74:1], which confirms Table VI.

The product surplus was becoming ever more burdensome, and product prices continued to drop in Europe. [PIW 8-19-74:3,4] Kuwait proposed a joint output reduction at the next OPEC meeting. [NYT 8-26-74:45] The U.S. government's hope for lower oil prices were dimmed by the "mysterious postponement" of the Saudi auction.

"With world production now apparently in excess of demand and with storage tanks full in important consuming countries the auction had been expected to start the way toward lower prices." [NYT 8-26-74:47]

But they were hopeful for next year, when Saudi authorities said production would rise from the current 8.5 mbd to 10 million, which would "exert at least a modest downward pressure on the world price." [Id.]

But reporters could see, even if high ranking officials could not, that Saudi August
output had quietly been cut by an amount greater than the combined cutbacks announced by Kuwait and Venezuela. [WSJ 8-26-74:3] Aramco confirmed the cut, attributing it to storms in the Gulf [WSJ 8-27-74:12]. But the shortfall there could have been made up by larger shipments through the pipeline to the Eastern Mediterranean, which had great excess capacity. [NYT 9-5-74:62] The Saudi preoccupation was clear.

"An OPEC-decreed production control program could solve some of these problems for companies, but deep concern is expressed over OPEC's flexibility in 'fine tuning' output in line with seasonal demand variations. [But prices would not drop.] While short-term spot prices might decline, oil companies have a floor of high costs [i.e. take]." [PIW 8-26-74:1]

On August 31, in a "setback for Washington strategy" Saudi Arabia agreed with Algeria not to lower oil prices. "It doesn't want to wear a white hat, after all." [NYT 9-1-74:1] But the Saudis continued to blame the weather for reduced output, and the auction was still only "postponed." [WSJ 9-3-74:4] But two days later, Iraq announced an export reduction, and "Saudi Arabia, Algeria, Kuwait and Abu Dhabi have quietly agreed to do much the same in an effort to maintain current prices." [WSJ 9-5-74:2] Oil production controls were widely discussed in advance of the next OPEC meeting in mid-September. [PIW 9-9-74:3]

On September 9, King Faisal canceled the auction. Ambassador Akins "said it was too much to expect Saudi Arabia to singlehandedly bring down oil prices." [NYT 9-10-74:53] But the public record shows the Saudis working to raise prices. The auction was designed to raise them further (above, p. 68). When the hope disappeared, the auction was canceled.

**The September OPEC meeting** At the next OPEC meeting, it was expected that the Saudis would have achieved complete ownership of Aramco, and a new flat price would be
instituted: 93 percent of posting. This "would mean a sharp but disguised increased in [transfer] oil prices, currently averaging around $9.50 a barrel." [WSJ 9-11-74:42]

Transfer prices at the Persian Gulf had been climbing "steadily" because of increasing participation. Elsewhere the picture was mixed. [PIW 9-2-74:2] An Iranian minister said most Iran crude was being sold at $9.25, give or take fifty cents. [PIW 9-9-74:1] The Aramco negotiations were dragging on because of Saudi refusal to grant the companies preferential prices on long term contracts. The companies were eager to settle because it was not clear how much they owed for oil purchased since January 1. [WSJ 9-11-74:42]

At the September meeting, OPEC members agreed to raise the royalty on equity oil from 14.5% to 16.67% of posting, and to study output reductions. Federal Energy Administrator Sawhill called this "economic blackmail", but OPEC sources explained that higher taxes did not mean higher prices--let the companies pay! [NYT 9-14-74:1; WSJ 9-16-74:3] As in June (above, p. 63) Saudi Arabia "disassociated itself" from the action, but two days later said it was raising the average cost of its oil by approximately the amount of the royalty increase, which varied among countries. [NYT 9-16-74:54] In addition, "the chief proponent of lower crude-oil prices [Saudi Arabia] ... may have, in fact secretly increased the price," by raising the price of buy-back oil, from 93% to 94.864% of the posted price. [NYT 9-17-74:45]

Yamani said he had informed the Aramco companies in June that more tax increases were on the way. [NYT 9-18-74:55] The Aramco companies had just paid $1.9 billion to comply with retroactive tax increases. A rough estimate, based on production January-August, would be about 90 cents per barrel [PIW 9-23-74:1].
Empty barrels in Washington  This finally compelled recognition that various measures under discussion by OPEC, or already taken "will lead to escalation of world oil prices of such dimensions that leading industrial nations are now, for the first time, beginning to talk openly of a direct confrontation. The situation is getting 'very, very serious', says one top insider." [PIW 9-23-74:1]

President Ford sent "a warning to oil nations." It was "bluntly" said. Secretary Simon "took an even harder line." Others in Washington denied there was any "justification" for further price increases.[Id.:1,7] The next week:

"[Washington] pushed hard on its new 'tough line' in a carefully orchestrated public campaign to bring down 'exorbitant' world oil prices....No one can yet foresee what may come of the blunt 'gloves off' challenge by President Ford and two of his key cabinet officers. Through Secretaries Kissinger and Simon, the U.S. Government had counted heavily--and publicly--on Saudi Arabia's implied promises to help bring prices down by an oil auction and other measures. Since the Saudis didn't act, Washington expected that OPEC at least wouldn't increase prices further. But OPEC did, and the final straw was that it set the stage for still further escalation." [PIW 9-30-74:1]

Arab countries professed to see a "threat" in President Ford's speech. [NYT 9-20-74:5] But Yamani insisted "that his country was the chief friend of the oil consuming nations although his Government has raised the price....[H]is country had no intention of cutting production to help keep prices high." [NYT 9-21-74:37] President Ford, "in a harsh and threatening speech" warned the OPEC nations "of possible retaliation." [WSJ 9-24-74:1]

All this tough talk was to cover up "that the United States' campaign to bring about price reductions has failed, and failed conspicuously." [NYT 9-25-74:3] This was not quite true. The strategy had not failed, it had never existed. In the words of Federal Energy Administrator Sawhill--"the United States does not have a policy...directed at halting and reversing the rise in world prices" within the next several years. [Id.] Senator Jackson
praised Mr. Sawhill's candor [WSJ 9-30-74:3], Secretary Kissinger was angry [Time 11-11-74:61], and Mr. Sawhill's days in office were numbered.

Bluster was a substitute for resistance. The more words, the fewer acts. The more hostile the speeches, the more the OPEC nations must have enjoyed them. They offered the thrill of battle array with no danger—what German soldiers call a Blumenkorso.

At the annual meeting of the International Monetary Fund and the World Bank, Mr. Robert McNamara thought the "slow long-term decline in petroleum prices [had] called for correction." The Indian Finance Minister made no plea for an oil price reduction. "This has been a fairly common attitude among the less developed countries, even though...[they] have been hardest hit by the present situation." [NYT 10-1-74:1] A month later, at the UN General Assembly, nothing was said about lower oil prices. "Instead, the diplomats said, they tend to applaud the redistribution of wealth." [NYT 11-3-74:2]²⁶

King Faisal now "issued an unusually blunt warning that there's 'not a moment to be lost' for America to force Israel into a 'full and prompt' withdrawal from all Arab lands", and he threatened another crisis, 'far more severe than the last one'. That was the last Arab threat. Ambassador Akins said that "the price would probably be '50% higher today' if the Saudis hadn't fought strongly within OPEC for price restraint." He added that "the oil price has nothing to do with peace" in the Middle East. [PIW 10-7-74:1] Although he had claimed earlier that the Six-Day War created a seller's market (above, p. 24), now he thought

²⁶ During the "embargo," a letter to the London [Economist 12-15-73:4] claimed that Sheik Yamani, "a black man", was getting his own back from the detested white race. Sheik Yamani happens to be one of the most photographed personalities of our time, and he is obviously Caucasian. What the letter proves is that in matters of oil some people cannot tell black from white.
its liquidation would not end it. But two years later, he seemed to have changed back again. "Only with [Arab-Israel] peace can we have petroleum." [Oil Daily 10-28-76:1]

Confusion, Saudi re-assurance, and a new price rise

But "crude oil markets [were] in total confusion" in the wake of the September OPEC meeting because it was not clear what increase applied to what company. [Id.] There was also confusion about the ascertainment of buy-back prices, equity crudes, and their respective weights. [PPS 10-74:362] [Cf. table VI]

Yamani, although "his country could cover its financial needs by producing only 5.5 million barrels a day," "pledge[d] not to cut oil flow", and Mr. Sawhill applauded, but oil executives present dismissed the "assurance as formalistic and meaningless." [NYT 10-5-74:3] Shortly thereafter he "said emphatically that his country wouldn't cut back production to offset petroleum conservation measures in the consuming nations. Without saying so directly, Mr. Yamani seemed to agree with ...Sawhill that this would lead to price reductions for crude." [WSJ 10-7-74:8] (In March 1975 U.S. Government sources complained that the Saudis had "pulled the rug out from under them" by letting production drop.) [OGJ 3-17-75:67]

The next week, Secretary Kissinger visited King Faisal, who "assured [him] that his country would use its influence to try to bring down the world price of oil." Moreover, he told reporters that the King "outlined actions he had already taken to help drive the price of oil down...This was the first time that the King had given oil-price assurances to Mr. Kissinger during the six meetings they have held since last November [1973]." [NYT 10-13-74:12]
A *Times* reporter seemed a bit jaded: "It is a familiar scenario... with the King cast as Good Guy and the Shah of Iran as Bad Guy." Ambassador Akins had quoted an unidentified Saudi official as saying that they should produce more than 2.5 million barrel daily. [OGJ 10-14-74:46] He now said that the price would have been higher without Saudi Arabia. If only one other major exporter would join them, then "maybe the price would come down." [NYT 10-16-74:59] That same day, the Secretary was in Rabat, Morocco, expressing optimism [WSJ 10-16-74:12] Also that same day, "Saudis renege on plan and raise prices in line with OPEC." They ordered Aramco to pay the additional taxes approved at the June OPEC meeting, from which they had "disassociated" themselves. The payments were retroactive to June 1[WSJ 10-16-74:18] The Saudis notified Aramco that they would "apply the last two OPEC price formulas to the hilt...This is contrary to earlier word from the Saudis." [OGJ 10-21-74:76]

The increases by Saudi Arabia were matched by the "balancing margin" clause in Iran, which also was to receive a large retroactive payment. [PIW 11-11-74:1]

Adding another dimension to prices: former Undersecretary of State George W. Ball proposed a scheme to enlist the cooperation of the OPEC countries by giving them inducements to invest over and above the return available to other investors. [Ball, in *Business Week*, 10-21-74:25] It would have been a disguised price increase.

By the end of October, all the OPEC nations seemed to have agreed on abolition of posted prices and taxes in favor of complete ownership and a single price to all buyers.

"Saudi Arabia plans to announce shortly a modest reduction in the price of her oil and the freezing of the price at the new level for a year." [NYT 10-29-74:1] But the one-price plan won't cut its [OPEC's] take....It will be set up in such a way that OPEC can call it a 'reduction'."
The price would be $10.35, but the Aramco companies would get a 50-cent allowance. Thus Saudi take on the marker Arab Light crude would be $9.85 on sales to Aramco, which presumably would be its chief but not exclusive channel. [PIW 11-4-74:1] But this was one of the unsettled details that was to drag on for at least two years.

As this was being discussed, Secretary Kissinger was back in Riyadh, where "King Faisal pledged again tonight that Saudi Arabia would try to keep oil prices at the current level and if possible reduce them, at least symbolically." The Secretary said "he would like to express our gratification." [NYT 11-7-74:1] That same day, it was learned that Iran and Saudi Arabia had already agreed, "after lengthy bilateral talks, on a higher price." [NYT 11-7-74:41]

"The price bombshell" delivered the next week caused the Gulf multinationals again to cancel or suspend transfer prices, and to inform affiliate customers "that the new price increases would be large." While posted price would be cut by 40 cents, there would be substantial increases in the tax rate, the royalty rate, and the buy-back price. Weighted average take would rise from $9.80 to $10.36. "Yamani denies Saudis aim to make money on tax hike...[but rather] to take from the oil companies and give to the consumers." [PIW 11-18-74:1, 5] A month later, he was still denying that take had increased. [WSJ 12-13-74:21] Abu Dhabi, Qatar, and Kuwait announced their agreement. As usual, Iran matched the increase through the balancing margin. [PIW 11-25-74:1]

Secretary Simon, "who predicted last summer, after a trip to the Mideast, that the price of petroleum was soon going to fall $2 to $3 a barrel because of the efforts of Saudi Arabia", thought that eventually prices would decrease. [WSJ 11-13-74:4]
Secretary Kissinger now announced "a vast new effort to deal with the world energy crisis and the deteriorating financial situation in many countries." His address was "billed by his aides as the most important he has made...as Secretary of State." He spoke "in grim terms", advocating demand reduction, recycling OPEC revenues, and the usual "dialogue." [NYT 11-15-74:1] Creation of the International Energy Agency was considered a "victory" for the United States because it was a setback for France, which refused to join, on the ground that the IEA was an instrument of confrontation not dialogue.27 [NYT 11-16-74:41]

As the year drew to an end, the massive surplus of productive capacity was still growing. Reckoned at just over 6 million barrels daily in August (above, p. 56), it was now over 10 mbd.28

"The excess of [current] supply over demand has put considerable downward pressure on petroleum product prices in many parts of the world. But unfortunately for the consumer, price action by the oil exporting countries has put a solid and very high floor under product prices." [NYT 12-9-74:45]

But the crude oil price was not quite ready to become clear because government take was still in question. News accounts show haggling on the Aramco buyout and take, to the year-end. All oil was to be sold at the buy-back price which would become a single market

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27 The French had been delighted with the Third World acclaim for them in the 1960s, when they subsidized Algerian treaty-breaking and expropriation, and the Arabs had called DeGaulle "the Sheik." [Fontaine, "La Tentation de la Rupture," LM 1-14-71] Now Foreign Minister Jobert strutted for the same applause.

28 In January 1975, the U.S. Treasury estimated OPEC surplus producing capacity at 10.5 million barrels daily, composed of: Saudi Arabia 2.4, Libya 2.25, Kuwait 1.5, Abu Dhabi 1.2, Iran 1.0, Venezuela and Nigeria 0.5 each, Indonesia 0.35, Iraq 0.32, Algeria 0.2, others a total of 0.31. [OGJ 2-17-75:NL1]
price. But the companies would receive a producing fee. In Kuwait, the price for the lower-grade oil would be $10.37, and the fee 22 cents. In effect, take was raised one last time, from $9.44 to $10.15. The 22 cent fee is a generous estimate of total development cost in a country where only capacity maintenance in two great fields was needed, "and there are little or no exploration opportunities left." (This looked like a safe prediction, in view of Kuwait's small size, but turned out to be wrong--a huge new low cost field was found in 1981, the accidental result of a search for gas for local power generation.)

In Saudi Arabia, unlike Kuwait, there were some complex producing problems, "implementation of major new development programs, and a great deal of exploration to be done, both offshore and in remote inland areas." The fee would be between 30 and 50 cents, with some additional exploration incentive to encourage companies to assume risks in finding oil. [PIW 12-9-74:1][WSJ 12-19-74:32][WSJ 12-23-74:7] [OGJ 12-23-74:15]

Compensation to the Aramco companies would be $2 billion [PIW 12-16-74:1], which amounted to 22 days' production at the current price and output levels.

The December OPEC meeting OPEC's last meeting of the year announced a price scale with government take on the marker crude (Arab Light) at $10.12, phased out in the direction of $10.34 to correspond with 100 percent ownership. But although this settled prices for the time being--allegedly for the first nine months of 1975--the volume of liftings by the resident companies, who were no longer concession owners, was still unsettled. [PIW 12-23-74:1] Of course the resident companies wanted as much as possible, since even the low fee was very profitable.

The Administration continued to seek its grand design, "dialogue" leading to a
worldwide price agreement setting a floor between $7 and $11 a barrel, to "give OPEC an incentive to cut prices soon in return for long-term market commitments." [WSJ 12-13-74:10] [NYT 12-30-74:9] The nature of the commitment was not explained.

Even persons with little sympathy for Secretary Kissinger's views in general echoed his on oil. Richard N. Gardner, former Deputy Assistant Secretary of State in the Kennedy/Johnson Administrations, who had helped launch the UN World Food Program a decade earlier, called for

"a great transcontinental bargain in which access [sic] to energy and other raw materials, which industrialized countries need, is traded for other kinds of access [sic] that developing countries need.' He points out that the Arab world will not be willing to exhaust its precious reserves of oil with a few years of full production so that the United States can continue its wasteful energy ways."

And the columnist Anthony Lewis wrote:

"We know [sic] now that the supply of oil is limited and that growing demand would probably push prices up before long in any event." [NYT 12-30-74]

That of course was what Mr. Kissinger had said just a year ago. The general belief was now set in concrete. Henceforth, one could not count the number of times one heard that oil is growing more scarce, and that it is important to have "access to" oil. The great unstated premise is that oil is allocated by favor and goodwill, not by price.
THE PERIOD IN REVIEW

I.

From 1970 to end-1974, the price level barometer, Saudi excise tax ("government take") per barrel of Arab Light, rose from 89 cents to $10.50.

In 1971-72, supply was excessive and markets weak. But governments raised taxes steadily in excess of the schedule of the Tehran agreements; and prices rose accordingly.

For the first three quarters of 1973, Persian Gulf demand chronically exceeded supply. Overpriced crude in Algeria, Libya, and Iraq (at the Eastern Mediterranean) diverted demand to the Gulf. There was also an unprecedented world stock buildup of approximately 540 million barrels of crude oil (and an unknown amount of refined products), or about 2 mbd. Demand was increased even more by the expectation of further accelerated tax and price increases. Early in 1973, expectations were already considered more important than supply/demand. As the year wore on, speculative demand was increased further by Saudi Arab threats of lower production.

In the last two months of 1973, the Arab producers' monthly cutbacks amounted to 9 percent of September output and made the price explode.

By mid-January 1974, the market reverted to excess supply. Worldwide crude inventory buildup was now involuntary, the result of not reducing purchases in time, but at 330 million barrels, it was almost as impressive as in 1973. [IPA 1977] By the end of the year, storage seemed to be full. For the first time in the history of world oil, there was massive excess producing capacity, reaching 10.5 million barrels daily by the end of the year. Under competitive conditions, there would have been a spectacular price collapse.
Yet spot prices fell only moderately. Prices on contracts rose along with the level of excise tax, which went from just over $7 on January 1 to about $10.56 at the start of 1975.

II.

Crude oil prices were illegible or "unprintable" much of the period, and above all after September 1973. The price records of the companies, and national averages, are retrospective, "corrected" for later changes. Hence they are no clue to the process by which prices rose.

The only valid price series is that of f.o.b. values netted back from product prices as calculated by [Verleger 1982, Appendix]. But given rational behavior by buyers and sellers, the anticipation of higher excise taxes makes prices change before the taxes which cause the change. Product prices are as much or more sensitive than crude prices to expectations of higher taxes and restricted output. We have therefore focussed on the excise tax as price floor, and on the prices in term contracts.

III.

The facts cannot be reconciled with any theory that supply/demand changed to favor sellers and raise prices. In previous papers, we have shown that long term forces had not changed, and that the 1970 price was substantially above long-run competitive levels. A close examination of the 1971-74 period shows two kinds of patterns of price increase.

The first and more dramatic is the ratchet. A short term supply shortage, in this case created by some of the sellers, sends price sharply up. Then the sellers move to raise the excise tax in concert, to keep the price at its new higher level. This was the December 1973 action.
The second pattern is to raise excise taxes despite deficient demand, in the well-founded expectation that (1) everyone will raise to roughly the same degree, and even more important, (2) that output will be curtailed enough to validate the new higher prices. No deliberate production cuts are needed at this stage, only that most sellers refrain from offering lower prices to move more output. Then production is set by the amount demanded.

This was the pattern in 1971-72 when demand was deficient; above all, it was the great achievement of 1974, to hold and increase the price when sales plummeted and producers were faced with an unprecedented challenge. It helped that they were flooded with cash, which removed all financial constraints. The steadfast holding to price in the face of falling sales promised well for the health of the cartel.

Over the whole period, prices rose when capacity was strained and also when it was slack. But in 1974, the greater the degree of excess capacity, the higher the price. The output reductions, increasing excess capacity, were a necessary condition for price increases. A monopoly market turns the competitive rules upside down.

IV.

There was no detailed strategy for the price explosion. The OPEC nations had a timetable for both price increase and nationalization, but like good commanders in war they were quick to seize opportunities to surpass it many times. The lack of resistance, and the anxiety of the consumer-country governments to please, were an inducement to go faster. The Persian Gulf producers took the lead, and others followed to raise prices by the same amount. There was no excess capacity outside OPEC, to tempt other producers to undercut...
V.

In 1971-72, the tax/price leaders upward were Iran and Saudi Arabia. The Saudis became increasingly dominant in 1973 because they were larger, and because of their threats to cut production, which they made good in October. Throughout 1974, it is a matter of public record that Iran was the passive beneficiary of Saudi and Kuwaiti actions, because of the "balancing margin" in their contract with the Consortium. But the legend endures: the Shah as price hawk, the King as dove. The Saudis talked almost incessantly in favor of lower prices. They also repeatedly took the lead to raise prices. They promised then canceled an auction; promised then forgot to maintain output. Soft words and hard actions served them well.

VI.

The Arab oil production cutbacks were announced to achieve an Israeli withdrawal from the occupied territories, especially Jerusalem. The cutbacks were withdrawn after barely two months, with none of the demands met. The devotion of the Arab oil producers to the Palestinian cause was loud, not deep.29

The market worked, and distributed oil with rough equality among the nations. The Arab oil "embargo" was a fiction, "a lie we wanted you to believe" (above, p.44). Secretary

29 An opposing view: "Should there be no movement toward peace, [defined as Israeli "withdrawal from the West Bank, Jerusalem, Golan, and Gaza"] we must assume that producers in the Arabian peninsula will eventually find it expedient to cut down, if not to cut off oil production. If they do not, they could face revolution or sabotage." [Akins 1982b, p.6] But none of them stirred even during the 1982 Israeli invasion of Lebanon nor the repression of the intifada.
Kissinger believed it, and labored for five months to dispel what was not there.

The "embargo" was a denial of "access" to oil, and proved that "access" was a non-problem. It gave the U.S. a truly "special relationship" with Saudi Arabia and other Arab producers--their special enemy. Enemies did as well as friends because friendship and enmity were and are irrelevant.

VII.

The State Department had claimed credit for the 1971 Tehran agreement. As Secretary Kissinger wrote, the speed of its violation broke all records. New agreements "amending" Tehran were also quickly violated. The first "participation" agreements were repudiated after six months. Repeated Saudi assurances that they would hold down prices, or hold an auction, or maintain output, were also broken.

This experience proves simply that sovereign monopolists cannot be held to any bargain. In ordinary business life, an agreement is enforced by law and by competition: customers or suppliers can sue, or go elsewhere, or both. But OPEC governments are sovereign, beyond any law, and they have suppressed competition. Nothing compels them to keep any promises they make.

But if promises have no value, threats should have no force. Every threat is also a promise. The threat to damage our economy if we don't change our policy is also a promise not to damage us if we do change. If we cannot trust the promise, we should disregard the threat. Yielding to it, whether morally right or wrong, is above all useless.

[Kapstein 1990, p. 166] writes that "European leaders did not act courageously during the [Middle East] war, but they acted in accordance with their immediate national interests. This is what statesmen are supposed to do." But in fact their groveling did not serve any national interest. They lost as much supply as others -- perhaps more -- and paid no less.
None of the lessons were learned. The centerpiece of policy became the belief stated above by Kissinger, McNamara, Gardner, Lewis, et al., and by a distinguished international group, that oil "has been for so long underpriced and overused," and the need for "access" to oil and for a "special relationship" with the producers, especially the Saudis and the Iranians. Sober men professed to believe that the oil producers could be induced to produce more oil than was most profitable to them.

Ignoring the past, the Carter Administration continued and repeated it.

"During the 1970s, when oil prices were escalating, it was routine for the U.S. Treasury secretary to be dispatched to major OPEC countries, chiefly Saudi Arabia and others in the Mideast, to urge pricing moderation." [WSJ 4-25-88:3]

"To achieve the U.S. objective of access to adequate supplies at 'reasonable prices,' the United States uses its bilateral relationships with friendly producers in an attempt to influence their pricing and production decisions. This is especially apparent with Saudi Arabia, with which, according to a Department of State official, the United States has a 'very active' bilateral policy. Frequent visits by cabinet-level officials including the Secretaries of State, Treasury, Defense, and Energy, during the past several years illustrate this bilateralism." General Accounting Office, The Changing Structure of the International Oil Market (Washington: GPO, 1982), pp. 49-50.

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30 "The OPEC countries, whose principal product has been for so long underpriced and overused ... need, and undoubtedly want, both the enduring goodwill and the continuing economic prosperity of the oil-importing countries." Khodadad Farmanfarmaian, Armin Gutowski, Saburo Okita, Robert V. Roosa, and Carroll L. Wilson, "How Can the World Afford OPEC Oil?," Foreign Affairs, vol. 53, pp. 202-222 (January 1975)

31 On the futile exercise of the "Euro-Arab dialogue," see [Al-Mani and Al-Shaikhly 1983]. Neither side had anything to offer which the oil market and other markets would not supply anyway, without their action.
These frequent visits encouraged price increases, because they continually reassured the OPEC nations that United States policy was limited to preaching and groveling.

As this paper is completed, the Bush Administration is intent on again ignoring and repeating the past. (For Japan, see above, p. 47) Its aim is said to be "to establish closer ties with the Gulf states...to ensure that the oil will continue to flow." [PE 2-90:60] So too the Carter Administration used to boast of "unprecedented closeness in the Middle East." With far less excuse than in 1973, the assumption stands firm against logic and experience, that continuing oil imports require good relations, or "close ties," or something.

As General Sherman said: "When people believe a delusion, they believe it harder than they do a real fact."
APPENDIX-THE AMBASSADOR AND THE SECRETARY

Ambassador Akins was forced to resign in August 1975, and left the State Department. (His role in the Carter Administration will be described in a subsequent paper.)

"Mr. Akins, much admired in the Arab world...[will be succeeded by someone] less likely to see himself as 'Saudi Arabia's ambassador to the United States,' as Mr. Akins' critics have unkindly called him." [Economist 8-23-75:63]32

On the television program 60 Minutes in May 1980, Mr. Akins said that Mr. Kissinger approved the 1973 oil price hike in order to furnish the Shah with enough money to buy American weapons and be the U.S. proxy in the Gulf.

"In Ambassador Akins, the Saudis evidently found a credulous conduit for attempting to hang the rap for oil prices on the Iranians. It was a poorly understood and highly successful ploy that continues to this day..." ["60 Minutes' v. Henry Kissinger" by Thomas J. Bray, WSJ 6-30-80]

According to Mr. Akins, the energy chapters of the Kissinger memoirs "even more than those on the Middle East, are full of distortions and omissions. [For example,] King Faisal's repeated requests of Kissinger to put pressure on the Shah to help the Saudis restrain oil price increases." [Akins 1982] In fact, Kissinger mentions--with scorn, as hypocrisy--requests by both Saudis and Iranians. [Above, p. 55]

Mr. Akins states there is no record of Mr. Kissinger's alleged warnings, to OPEC governments, against price increases. Aside from the futility of such warnings; it is a curious complaint to hear from Mr. Akins, who never offers any support for anything he says. But his point is well taken, that there is very little official documentation.

32 See also "A Diplomatic Situation Where Oil and Hauteur Just Didn't Mix," Washington Post, 3-14-76; "How OPEC Came to Power," Forbes, 4-15-76.
"Although [Kissinger] describes the International Energy Agency, he fails to quote his aide's references to it as a means to destroy OPEC." [Akins 1982a] He does not name the aide, nor say what the aide actually said. Otherwise, there is little in the review which can be proved or disproved.

Shortly before the "embargo" ended, Ambassador Akins says he was instructed by the Secretary "to issue an ultimatum" to the Saudis. We are not told the content of the ultimatum. "Although Akins had asked him not to, the Saudi foreign minister had shown the ultimatum to King Faisal, who would have 'broken diplomatic relations with the U.S.' if it had been delivered." [PONS 5-6-76:3]

He has accused Mr. Kissinger of lying: "Henry Kissinger lied to him [King Faisal]...Kissinger very cleverly subverted Nixon. He was able to do this because of Watergate." [Robinson 1988, p. 118] These are serious accusations. (Or perhaps not, considering Mr. Akins' style. Others who have differed with him are described as a "criminal fool" [PONS 11-24-76:1], or a "neo-imperialist" [Akins 1982b, p. 9]) But the accusations are also baffling, because we are not told what Secretary Kissinger said, or why it was false, and made with intent to deceive.

Mr. Kissinger has exacerbated the feud by ignoring it. He probably never realized how very ill-informed Mr. Akins was. [Above, pp. 24, 26, 46] But the reasons why Kissinger dismissed him seem fairly clear on the public record. Akins appealed to private persons to change his own government's policy (above, pp. 28, 40). He reported the Arabs would never relax the cutbacks until their political demands were met (above, p. 40); in fact, they desisted after two months, with no demands met. Akins sold him the notion that a
selective boycott could be effective, and Kissinger's "obsession" with this phantom made him waste time, energy, and political capital. (Above, p. 52). Akins convinced him that the Saudis really wanted lower prices, for which Kissinger was repeatedly and publicly grateful, when in fact they were the leaders in raising prices, especially in 1974.

A subordinate cannot keep his job if he causes his superior to make a fool of himself in public.

**A Historical Aside** There is a striking parallel between Mr. Akins and Sir Nevile Henderson, the last British Ambassador to Nazi Germany. [Gilbert 1953] Henderson helped plan British appeasement. Then as ambassador he made it even more compliant to German wishes.

German documents "indicate all too clearly that in his conversations with German statesmen, Henderson frequently made use of the diplomatic technique of 'expressing a purely personal opinion'; and ... he went far in accepting the German point of view..." (540) Moreover, he reported "a continuous struggle ... in Nazi Germany between moderates and extremists ...", and recommended concessions to strengthen the moderates." There was no such struggle. (543-544)

But Henderson

"had gone there with a mission...and he had a burning desire to win, not merely success, but what might later be described as a triumph....A critical or objective approach would have made the reasons for his appointment futile." (551-52)

We probably will never have the Saudi documents with which to work out the parallel completely.
REFERENCES


[Church] Multinational Corporations and United States Foreign Policy. Hearings before the subcommittee on Multinational Corporations [Senator Frank Church, presiding] of the Committee on Foreign Relations. 93 Congress, 2d Session. 11 volumes, 1974-1975. Cited by volume and page.


[Skeet 1988] Ian Skeet, Opec: Twenty-five Years of Prices and Politics (Cambridge University Press, 1988)


[WO] World Oil, monthly


[WSJ] Wall Street Journal

FIGURES
Figure 1

NCW SUPPLY CURVE
(Excluding N. America and W. Europe)

Source: Adelman & Shahi 1989
Figure 2

Arab Light, Market Prices & Gov't. Take: 1960-70

[Graph showing Arab Light oil prices and government take from 1960 to 1970]
Figure 3

Arab Light, Saudi Take 1970-1973
Figure 4

Arab Light, Saudi Take 1973-1974
Figure 5

Annual Growth: NCW Consumption and Persian Gulf Output 1961-74
Figure 6

Percent Annual Increase:
NCW & Persian Gulf, 1961-1974
Figure 7  
Short Run Demand, Supply, Excise Tax

![Diagram showing demand and supply curves with excise taxes](image-url)
Figure 8

Oil Price

Target Price
(State Dept.,
Shah’s "new
idea")

Supposed
Demand
Curve (if no
Alternatives)

Cost of
Alternatives

True
Monopoly
Price (Max.
Revenue)

Current Price

Quantity of Oil Sold

Supposed Demand (no alternatives)

Supposed Demand (considering alternatives)

True Demand