

# Chapter No. 5

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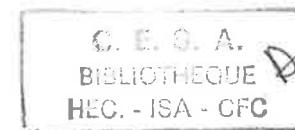
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# *The Myth of the OPEC Cartel*

## The Role of Saudi Arabia

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## CHAPTER 5

## OPEC is not a Cartel: an Alternative Explanation

## 5.1 THE OIL MARKET: 1947-1970

The demand for oil, like the demand for any other commodity, is mainly determined by its price, the price of its substitutes and complements, and by national income.

In a symbolic form,

$$D = F(P_o, P_s, P_c, NI)$$

where  $P_o$  is the price of crude oil,  $P_s$  and  $P_c$  stand for the price of oil substitutes and complements respectively, and  $NI$  is the national income of the oil consuming countries. It is estimated that the income elasticity of demand,  $\eta$ , is somewhere between 1.3 and 1.6. The price elasticity of demand,  $\epsilon$ , is thought to be very small in the short run and may range between  $-0.2$  and  $-0.1$ .

The important thing about the demand for oil is its sensitivity to changes in the world economies. But in spite of the industrial countries' steady economic growth since the 1940s, the real price of oil has fallen from 1947 to 1970 because the increase in oil supply more than compensated for the increase in demand. Figure 5.1 gives a geometric description of the oil market between 1947 and 1970.

The supply of oil has increased because of continuous oil discoveries, mainly in the Arabian Gulf area. The supply curve has continuously shifted to the right for two reasons: (1) technological progress that reduced the costs of exploitation, and (2) the risks of expropriation that the oil companies feared increased their effective discount rates and hence the rate of their oil outputs.

## 5.2 THE OIL MARKET: 1970-1973

As we mentioned before, OPEC was created in 1960 mainly to prevent the posted oil price from falling. And as a result the nominal posted prices

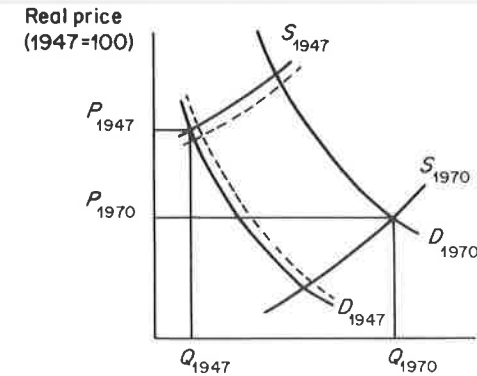


Figure 5.1. The oil market, 1947-1970.

did not fall since the establishment of OPEC, even though many experts believe that the nominal market-determined prices had decreased throughout the 1960s (Mikdashi, 1976: Chapter 2).

Since posted prices and market-determined prices are going to be referred to repeatedly in this chapter, let  $P_s$  stand for posted price and  $P_k$  denote the market-determined price.

It is important to emphasize the difference between  $P_s$  and  $P_k$  because, even though  $P_k$  is the accurate gauge of the market forces, the figures that are readily available are the published posted prices. All the claims that OPEC is an effective cartel are based on the quadrupling of  $P_s$  in the period between January 1973 and January 1974.

Because  $P_s$  is used as a reference price to calculate the oil companies' payments to the host countries, it is in the interest of the companies to keep it as low as possible. The reason the companies accepted the  $P_s$  that was greater than the  $P_k$  in the 1960s was their fear that if they insisted otherwise the countries may increase their income tax rates and their royalties. The companies preferred to accept a higher  $P_s$  rather than risk changes in the concessions terms that may in the long run increase their costs by a greater amount than the extra cost that was due to  $P_k < P_s$ .

When, on the other hand,  $P_k > P_s$  it is much easier and politically more acceptable for the companies to bargain for keeping the increases in  $P_s$  smaller than the increases in  $P_k$ . In other words, during periods of falling  $P_k$  we would expect  $P_s > P_k$  and during periods of rising  $P_k$  we would expect  $P_s < P_k$ .

What I am trying to establish is the following: If the companies attempted lowering the posted prices, that would have provoked the host countries in such a way as to threaten the companies' entire concessions. Resisting posted price raises, on the other hand, was not as dangerous as attempting to lower them.

The posted price rose sharply since 1971. The important question is if  $P_s$  increased by a smaller rate than  $P_k$ . OPEC economic experts say most

emphatically yes. They claim that, between the beginning of 1971 and June 1973,  $P_k$  rose by 65 per cent while  $P_s$  rose only by 33 per cent (Kubba, 1974: 61). During the summer of 1972, Saudi Arabia and Qatar sold all of their participation crude that was available for delivery in 1973 at prices that were 'much higher' than the posted prices.

It seems rather certain that in the early 1970s the  $\% \Delta P_k > \% \Delta P_s$ . Here is why:

1. Between 1970 and 1973 real GDP of the OECD countries increased by 5.1 per cent while the free world oil output increased by 6.6 per cent, and from 1945 to 1960 oil consumption had increased at 150 per cent of the rate of the percentage change in GDP; that is, oil output should have increased by 7.7 per cent rather than by the actual 6.6 per cent to keep up with the increase in demand (see Tables 5.1 and 5.2).

2. The participation talks between the oil companies and the host countries increased the companies' fear that their access to their crude in the OPEC countries would be restricted. That led the 'major' companies to reduce their outside sales of crude, forcing the price of oil that was

Table 5.1. Free world crude oil output in millions of barrels per day

Year	Output	% Change
1970	37.6	—
1971	38.0	0.1
1972	40.7	7.0
1973	45.9	12.7
1974	45.1	-0.2
1975	41.5	-8.0
1976	44.7	8.0
1977	46.8	5.0

Source: *Oil and Gas Journal*.

Table 5.2. Percentage change in gross domestic product of the OECD countries

Years	% Change
1970-71	3.7
1971-72	5.5
1972-73	6.0
1973-74	-0.4
1974-75	-1.5
1975-76	5.3

Source: *Main Economic Indicators*, published monthly by OECD, Paris, France.

available for the third parties to rise. The major companies expected smaller future supplies and thus higher prices and started increasing their inventories; that reduced the total supply of oil which, in turn, increased the prices.

3. In 1970, the US oil output had peaked and in early 1972 the Bureau of Mines reported that US crude oil output was expected to fall for the third year running by over 2 per cent.

Everyone expected the oil price to rise and price expectation of course has great influence on actual prices. In the words of Professor Penrose:

There is a clear record in the trade press of the short-term pressure of demand on market supply and of the increasing prices offered by buyers—mostly American but also Japanese and European independents (Penrose, 1975: 47).

When US oil producers anticipated higher future prices, that led them to reduce their outputs further and that in turn of course contributed to actual price rise.

### 5.3 CARTELIZATION OR ALTERATION OF PROPERTY RIGHTS

The *posted* price of OPEC oil was quadrupled in the period between January 1973 and January 1974. I have argued in a previous section that the market-realized price must have increased by a greater rate than the posted price up to the end of 1973 and, therefore, did not quadruple between the beginning of 1973 and January 1974. That is, we are certain  $P_k$  had increased, but we are not sure of the magnitude because the date we have only reflect the published  $P_s$ .

Regardless of the divergence between  $P_s$  and  $P_k$  that existed before November 1973, when OPEC for the first time unilaterally determined the oil price, it was clear to everyone that actual  $P_k$  sharply rose towards the end of 1973. Furthermore, it is certain that what caused the big price rise is the production cutbacks that were undertaken by OPEC members of OPEC.

It is true that the output restrictions were carried out for political purposes rather than for the achievement of financial ends. But to an economist that does not matter. What is important is that output reductions made price rises possible.

Since the sharp increase in the market price of oil that followed the October 1973 Arab-Israeli War (although it should be emphasized: the real prices were not quadrupled as has been frequently asserted) economists have assumed that OPEC has become an effective cartel that reduces output to raise prices. I disagree with this explanation.

There is no doubt, of course, that without production cutbacks prices

will not rise. I only disagree with the reasons that were advanced to explain the production restrictions.

In the last three months of 1973 there was an oil embargo and there were output reductions, but something else, certainly far more important than all of these things, happened. *The oil producers decided to determine the price of their oil unilaterally rather than through negotiations* with the oil companies as had been done in the past.

Once the host countries became the ones who decided the rate of oil output and its price, the role of the companies had been essentially reduced to that of contractors. That amounted to a *de facto* nationalization of the crude-oil deposits.

To outsiders no obvious institutional change took place, because no one announced any change in the contracts that govern the relations between the companies and the host countries.

But, if an oil company could not determine how much to produce and could not even announce the price at which it will sell the oil that it produces, does that make it an owner of that oil? Obviously not.

It is granted, however, that the countries did have the right to receive payments for the extracted oil. The point is that the oil-exporting countries could *not* change the 'posted' price unilaterally, since any price changes had to be negotiated. And until the early 1970s, the companies had considerable influence in determining the final negotiated prices.

Once one recognizes that the ownership of crude oil deposits has been shifted from the foreign companies to the oil-producing countries, it becomes then obvious that the companies and their host countries have different discount rates. And that implies different rates of output, which, in turn, means different levels of prices. A formal simple model was introduced in the previous chapter to show the effect of uncertain property rights on discount rates.

But that is not all. The rise in prices which it has been argued in this book was due to output cutbacks which were dictated by wealth-maximizing behaviour on the part of the oil-producing countries, also led to further decreases in the countries discounting rates. This was because the increase in oil revenues dictated reduction in output because of the limited investment opportunities within some of the OPEC countries, and the risks of investing abroad for all of the OPEC members.

Aside from all efforts to keep the oil price high, countries such as Saudi Arabia, Kuwait, Venezuela, UAE, Qatar, and Libya had to decrease the rate at which oil was produced for purely efficient resource-allocation purposes. As will be explained in other parts of this book, the marginal rate of return on domestic investment in the Gulf countries is much lower than the average world market rate of interest.

Because the OPEC countries have lower discount rates than the companies' effective discount rate, their oil output since 1973 is lower than what it otherwise would have been if the companies were still the owners

of the crude. That led to higher oil prices. But the higher prices increased revenues which in turn decreased the discount rate even further in some OPEC countries and that resulted in greater production cutbacks.

From Table 5.3 it is clear that since 1973 the supply of oil by Kuwait, Qatar, and Libya has been restricted. One would expect the same thing to occur in Saudi Arabia and in the UAE. But for non-financial reasons that will be explained in Chapter 7, Saudi Arabia and UAE did not restrict their outputs as much as other countries that have similar constraints on domestic investment. It is nevertheless obvious that the rate of increase at which oil was produced in Saudi Arabia was decreased from 25 per cent over the 1970–1973 period to only 13 per cent from 1973 to 1974.

Figure 5.2 illustrates what happened since 1973. The demand that OPEC faces,  $D^e$ , is the difference between the world total demand for oil and non-OPEC supply. The position of the supply curve reflects two different discount rates,  $r$  and  $\hat{r}$ , where  $\hat{r}$  is greater than  $r$ .

The sharp increase in the price of oil since 1973 and the slight restriction of oil output that made it possible does not contradict the monopoly power that is being attributed to the alleged successful cartelization of OPEC.

I am only arguing that the huge differences in the effective discount rates of the foreign companies on the one hand and the host countries on the other is a more reasonable cause of the price rise than the monopoly explanation.

Aside from the political differences among the OPEC countries the economic differences alone will preclude agreements on prices and rates of output. The economic disagreements could be solved if side payments and demand prorationing were effectuated. But no such thing occurs.

Many economists think OPEC is an effective cartel for two reasons: (1) the sharp price rise since January 1974, and (2) the fact that the OPEC members meet to 'fix' prices.

The price rise could be explained by the change of crude ownership, the boom in the world economies between 1970 and 1973, and the fall of the US crude-oil outputs.

When it comes to price-fixing, OPEC is not unique. The producers of coffee, tin, copper, and other raw materials meet all the time to fix the prices of their commodities. The problem is that they do not adhere to the agreed-upon prices.

In fact, many, if not all, of the OPEC countries, charge different prices than the 'official' price that OPEC announces (Seymour, 1975).

The only time when any number of the OPEC oil producers agreed to collectively act in concert to reduce output was in the last three months of 1973, following the October 5, 1973 Arab–Israeli War.

On November 5, 1973, the OPEC members of OPEC declared that they would cut their oil outputs by 25 per cent of their September 1973 levels and 5 per cent each successive month until they realized their political objectives. It is important to note that the non-Arab members of

Table 5.3. International crude oil production

		Algeria	Iraq	Kuwait	Libya	Qatar	Saudi Arabia	United Arab Emirates	Arab OPEC	Indonesia
Thousand barrels per day										
1973	Average	1,070	2,018	3,020	2,175	570	7,596	1,533	17,982	1,339
1974	Average	960	1,971	2,546	1,521	518	8,480	1,679	17,675	1,375
1975	Average	960	2,262	2,084	1,480	438	7,075	1,664	15,963	1,307
1976	Average	980	2,415	2,145	1,933	497	8,577	1,936	18,483	1,504
1977	Average	1,095	2,495	1,970	2,065	445	9,200	2,000	19,270	1,684
1978	January	1,100	2,130	1,720	1,790	450	7,790	1,740	16,720	1,700
	February	1,100	2,430	1,720	1,800	480	8,380	1,880	17,790	1,700
	March	1,100	2,230	2,130	1,880	420	7,690	1,850	17,300	1,710
	April	1,100	2,430	1,990	1,870	510	8,050	1,750	17,700	1,680
	May	1,100	2,130	1,813	1,930	380	7,250	1,870	16,473	1,700
	June	1,100	2,230	1,925	2,000	450	7,590	1,840	17,135	1,620
	July	1,100	2,100	1,952	2,040	490	7,410	1,830	16,922	1,580
	August	1,100	2,300	2,360	2,030	540	7,180	1,830	17,340	1,620
	September	1,100	3,000	2,591	2,020	500	8,380	1,830	19,421	1,590
	October	1,100	2,700	2,110	2,070	510	9,310	1,840	19,640	1,590
	November	1,100	3,300	2,650	2,100	470	10,250	1,840	20,710	1,590
	December	1,100	3,000	2,199	2,090	580	10,400	1,830	21,199	1,600
	Average	1,100	2,515	2,095	1,975	480	8,295	1,831	18,291	1,635
1979	January	1,100	3,500	2,615	2,175	550	9,790	1,835	21,565	1,605
	February	1,100	3,500	2,705	2,160	555	9,780	1,830	21,630	1,620
	March	1,100	3,500	2,590	2,080	370	9,780	1,825	21,245	1,630
	April	1,100	3,500	2,545	2,070	550	8,790	1,750	20,305	1,610
	May	1,100	3,500	2,585	2,050	540	8,780	1,855	20,410	1,570
	June	1,100	3,500	2,585	2,020	455	8,780	1,865	20,305	1,615
	July	900	3,300	2,550	2,080	520	9,780	1,830	20,960	1,605
	August	900	3,300	2,525	1,990	535	9,770	1,830	20,850	1,600
	September	900	3,300	2,375	2,030	455	9,780	1,835	20,675	1,580
	October	900	3,300	2,375	2,030	490	9,725	1,780	20,600	1,575
	November	900	3,700	2,445	2,095	525	9,795	1,865	21,325	1,575
	December						9,700			
	Average						9,550			

Source: US Department of Energy, *Month Energy Review*, February 1980.

OPEC did not participate in the output reductions. To the contrary oil outputs in Iran, Indonesia, and Nigeria rose during this period.

The actual reductions were far less than the declared targets (see Table 5.4) and the entire OPEC output for the three months of October, November, and December on the average fell by about 8 per cent as compared to the production levels of September 1973. It is almost certain that, without the emotional atmosphere that was associated with the war, any collective efforts to reduce outputs would have failed.

One may wonder why the OPEC oil producers waited *until 1973* to be the ones to make the output and pricing decisions.

The answer is two-fold: firstly, the emergence of the so-called

for major petroleum exporting countries

		Iran	Nigeria	Venezuela	Total OPEC	Canada	Mexico	United Kingdom	United States	China	USSR	Other	World
Thousand barrels per day													
1973	Average	5,860	2,054	3,366	30,961	1,800	450	8	9,208	1,090	8,420	3,843	55,870
1974	Average	6,022	2,255	2,976	30,683	1,695	580	9	8,775	1,310	9,020	3,799	55,870
1975	Average	5,350	1,783	2,346	27,134	1,420	720	20	8,375	1,490	9,630	4,201	52,990
1976	Average	5,863	2,067	2,294	30,641	1,300	800	245	8,132	1,670	10,170	4,372	57,330
1977	Average	5,665	2,085	2,240	31,350	1,320	980	770	8,245	1,805	10,700	4,490	59,660
1978	January	5,290	1,640	1,780	27,530	1,240	1,100	880	8,360	1,990	10,900	4,420	56,520
	February	5,530	1,570	1,620	28,600	1,310	1,100	950	8,377	1,990	11,000	4,493	57,820
	March	5,600	1,520	2,060	28,600	1,320	1,100	870	8,720	1,990	11,070	4,620	58,290
	April	5,610	1,690	2,230	29,330	1,100	1,140	980	8,818	1,990	11,100	4,562	59,020
	May	5,720	1,720	2,220	28,253	1,160	1,150	1,110	8,825	1,990	11,140	4,392	58,020
	June	5,630	1,890	2,320	29,015	1,500	1,170	1,110	8,832	1,990	11,120	4,573	59,310
	July	5,800	1,910	2,290	28,952	1,180	1,200	1,090	8,756	1,909	11,230	4,642	59,040
	August	5,810	2,060	2,100	29,330	1,310	1,240	1,100	8,758	1,990	11,280	4,832	59,840
	September	6,050	2,120	2,270	31,881	1,200	1,280	1,090	8,800	1,990	11,340	4,219	61,800
	October	5,490	2,110	2,260	31,520	1,390	1,300	1,160	8,820	2,010	11,440	4,650	62,290
	November	3,490	2,280	2,320	30,840	1,520	1,320	1,280	8,741	1,010	11,490	5,719	62,920
	December	2,370	2,380	2,320	30,299	1,540	1,370	1,350	8,662	2,010	11,470	4,949	61,650
	Average	5,200	1,910	2,165	29,616	1,315	1,215	1,080	8,707	2,005	11,220	4,772	59,930
1979	January	410	2,440	2,270	28,745	1,455	1,390	1,460	8,457	2,280	11,370	4,443	59,600
	February	760	2,430	2,350	29,245	1,580	1,395	1,500	8,498	2,280	11,370	4,322	60,190
	March	2,190	2,440	2,430	30,380	1,410	1,305	1,330	8,585	2,280	11,370	4,390	61,590
	April	3,800	2,420	2,390	30,960	1,515	1,395	1,455	8,533	2,280	11,510	4,508	62,230
	May	4,100	2,400	2,390	31,310	1,470	1,400	1,640	8,585	2,290	11,110	4,395	62,190
	June	3,950	2,420	2,250	30,980	1,470	1,435	1,740	8,409	2,280	11,460	4,466	62,240
	July	3,750	2,380	2,330	31,380	1,525	1,435	1,705	8,355	2,130	11,400	5,480	63,410
	August	3,600	2,185	2,330	30,995	1,455	1,455	1,635	8,699	2,130	11,560	5,250	63,050
	September	3,600	2,115	2,370	30,760	1,495	1,470	1,670	8,466	2,130	11,460	4,979	62,430
	October	3,930	2,135	2,375	31,035	1,450	1,510	1,610	8,460	2,130	11,630	5,120	62,945
	November	3,300	2,150	2,395	31,165	1,530	1,615	1,515	8,530	2,130	11,920	5,000	63,405
	December												
	Average				30.8								

newcomers (Phillips, AMOCO, Oxy, etc.) and the state-owned oil companies of France, Italy, and Japan as important buyers of crude reduced the monopsony power of the 'majors'.

Secondly, the tightness of the oil market in the 1970-73 period that was caused by actual demand being greater than projected demand reduced the chances that the oil companies would unite and boycott OPEC oil.

In 1954, the oil companies that were nationalized in Iran were able to enlist the support of the other members of the 'Seven Sisters' in black-listing the Iranian crude. As a result, the Mossadagh government that nationalized the oil industry fell and the companies' property rights were restored.

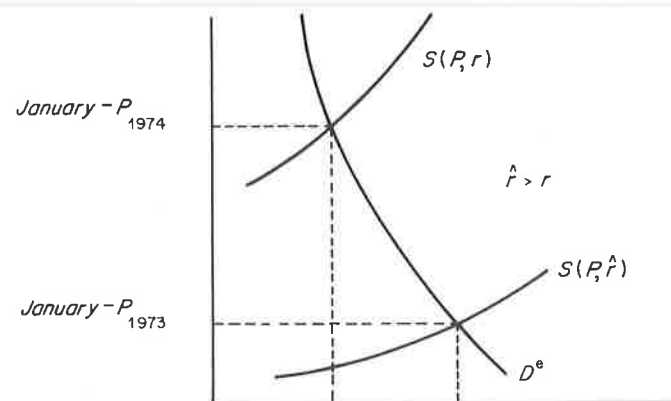


Figure 5.2. The oil market, 1973-1974.

During early 1970 oil buyers were too numerous and had substantially divergent interests to be able to frustrate the oil producers governments' attempts to control their own natural resources. In short, the power of the host countries was greatly enhanced by the gradual weakening of the economic and political power of the major oil companies.

Table 5.4. OPEC members of OPEC production levels during the 3-month 'embargo' period October through December 1973 (as compared to their output levels during September 1973, the month immediately preceding the embargo) (in thousands of barrels per day)

	October	November	December	3-month average	September	Actual % change from September	Planned % change from September
UAE	1,550	1,300	1,160	1,337	1,654	-19	-15
Iraq	1,797	1,923	2,140	1,953	2,167	-9	-35
Kuwait	3,058	2,615	2,560	2,744	3,480	-21	-35
Qatar	598	505	460	521	608	-14	-35
Saudi Arabia	7,800	6,270	6,620	6,897	8,534	-19	-35
Algeria	1,020	800	860	920	1,100	-16	-25
Libya	2,380	1,776	1,770	1,972	2,286	-13	-35
TOTAL	18,203	15,259	15,570	16,344	19,822	-17	-35
Ecuador	210	210	230	217	210		
Venezuela	3,371	3,384	3,330	3,362	3,395		
Iran	5,978	6,009	6,071	6,019	5,393		
Indonesia	1,406	1,391	1,400	1,399	1,350		
Gabon	160	160	160	160	155		
Nigeria	2,190	2,200	2,252	2,214	2,102		
				13,371	12,605	+6	
OPEC Total				29,715	32,427	-8.3	

Source: *Oil and Gas Journal*.

Professor Walter J. Mead (1979) tried to test the hypothesis that OPEC had become a successful cartel since October 1973, and he could not confirm this hypothesis.

Firstly, if OPEC was really an effective cartel, one would expect the members of the cartel to reduce output 'during market weakness' to maintain what they consider an optimal price. Did they? If we compare the records of output during 1974, 'a year of strong market' with that of 1977, 'a year of weak market' we find that six OPEC members producing approximately one-half of total OPEC output expanded production such that their market shares increased from 52.2 per cent to 58.8 per cent of OPEC production (Mead, 1979: 219). That evidence is not what one would expect if OPEC was an effective cartel. See Table 5.5.

Secondly, Professor Mead looked at the evidence (Table 5.6) along Robert Pindyk classification of the OPEC members as 'saver countries' and 'spender countries'. If collusion was happening then one would expect 'saver' countries to be the members of the 'cartel' who were bearing the brunt of output production. 'The record, however, shows that saver countries in total expanded output and market shares at the expense of the spender countries' (Mead, 1979: 219).

#### 5.4 BUT DOES NOT SAUDI ARABIA DOMINATE OPEC?

It is of great importance to note that saying that 'OPEC is a cartel' is quite different from saying that 'Saudi Arabia determines the price of oil'. In other words it is possible that OPEC is not a cartel even if one thinks that Saudi Arabia has a monopoly power in the world oil market.

It has been often said that OPEC is a cartel and Saudi Arabia is its price leader. But that does not make sense. If OPEC is a cartel then its oil price is the price that has been set to serve the interest of *all* the members of the cartel. If, on the other hand, Saudi Arabia is able to set the OPEC price then that price is supposed to serve mainly the interest of Saudi Arabia. Under the rules of the dominant-firm price-leadership, Saudi Arabia would set what it considers an optimal price, and all the other oil-producing countries would sell as much as they want at that price.

But does the behaviour of Saudi Arabia and the other oil-producing countries confirm the predictions of price-leadership model?

From January 1974 to December 1977, Saudi Arabia seemed to have some power in influencing the world oil price. It did not use this power, however, to increase prices, it used it rather to avert price rises or at least it tried to keep the price rises as small as possible. Since the demand for oil is considered highly inelastic, and since the marginal cost of producing oil in Saudi Arabia is considered constant, one would expect Saudi Arabia (if it is trying to prevent the price from falling) to reduce outputs during periods of weak market while allowing all the others to expand it if they wished. The records show (see Table 5.5), however, that Saudi Arabia

Table 5.5. OPEC country output and market shares, classified by expanding and contracting countries

OPEC Member Country	1974		1977	
	Output per day (000 bbls)	Market share in OPEC (per cent)	Output per day (000 bbls)	Market share in OPEC (per cent)
<b>Countries expanding output:</b>				
Saudi Arabia	8,481	27.6	9,200	29.5
Iraq	1,975	6.4	2,265	7.3
Libya	1,521	4.9	2,080	6.7
Indonesia	1,375	4.5	1,685	5.4
United Arab Emirates	1,689	5.5	2,009	6.4
Algeria	1,009	3.3	1,123	3.6
<b>Total</b>	<b>16,050</b>	<b>52.2</b>	<b>18,362</b>	<b>58.8</b>
<b>Countries contracting output:</b>				
Kuwait	2,547	8.3	1,969	6.3
Iran	6,022	19.6	5,699	18.3
Venezuela	2,976	9.7	2,238	7.2
Nigeria	2,256	7.3	2,097	6.7
Others (3)	895	2.9	849	2.7
<b>Total</b>	<b>14,696</b>	<b>47.8</b>	<b>12,852</b>	<b>41.2</b>
Total OPEC	30,746	100.0	31,215	100.0
Total world	56,268		59,798	
OPEC share of world output		54.6		52.2

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increased its absolute output as well as its market share, 'both within OPEC and in total world market' (Mead, 1979: 221).

Until December 1977 Saudi Arabia had a lot of power to influence prices because its capacity to produce oil was estimated to be around 12 million b/d. Thus it was able to argue within OPEC for smaller or no price rises and it increased its rate of output when necessary to prevent price rises. No one within OPEC doubted, *at that time*, that Saudi Arabia will increase its output to the level which made price rises impossible.

Throughout 1976 most OPEC members wanted to raise the price of oil from its 1975 level but Saudi Arabia refused and increased its rate of production by 21 per cent during 1976 as compared to 1975 to make its refusal of price increases effective.

When the Iranian revolution resulted in oil output cutbacks during the fall of 1978 the price of oil rose sharply in the spot market and Saudi

Table 5.6. OPEC country output and market shares, classified by 'saver countries' and 'spender countries'

	1974		1977	
	Output per day (000 bbls)	Market share in OPEC (per cent)	Output per day (000 bbls)	Market share in OPEC (per cent)
<b>'Saver countries'</b>				
Saudi Arabia	8,481	27.6	9,200	29.5
Kuwait	2,547	8.3	1,969	6.3
Libya	1,521	4.9	2,080	6.7
United Arab Emirates	1,689	5.5	2,009	6.4
<b>Total</b>	<b>14,238</b>	<b>46.3</b>	<b>15,258</b>	<b>48.9</b>
<b>'Spender countries'</b>				
Iran	6,022	19.6	5,699	18.3
Venezuela	2,976	9.7	2,238	7.2
Algeria	1,009	3.3	1,123	3.6
Indonesia	1,375	4.5	1,685	5.4
Nigeria	2,256	7.3	2,097	6.7
Ecuador	174	0.6	183	0.6
<b>Total</b>	<b>13,812</b>	<b>44.9</b>	<b>13,025</b>	<b>41.7</b>
<b>Unclassified</b>				
Iraq	1,975	6.4	2,265	7.3
Gabon	202	0.7	222	0.7
Qatar	519	1.7	445	1.4
<b>Total</b>	<b>2,696</b>	<b>8.8</b>	<b>2,932</b>	<b>2.4</b>
<b>Total OPEC</b>	<b>30,746</b>	<b>100.0</b>	<b>31,215</b>	<b>100.0</b>

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Arabia raised its oil output to 9,310 million b/d during October and to over 10,000 million b/d for the months of November and December 1978.

Throughout 1979 Saudi Arabia raised its oil output from the government's announced target of 8.5 million b/d to 9.5 million b/d. Obviously that had been done to avoid price rises.

But Saudi Arabia lost control of oil prices since mid-1979. The reason seems to be that it could not increase its rate of output beyond 10 million b/d without causing serious damage to its oil fields (see Chapter 8, section 8.4). The US Central Intelligence Agency in 1979 estimated Saudi Arabia productive capacity to be around 10 million b/d instead of the 12 million b/d that was previously announced as Saudi productive capacity.

The behaviour of prices since the start of the Iranian political turmoil will be discussed in greater detail in the following chapter.

### 5.5 AN ALTERNATIVE HYPOTHESIS: THE COMPANIES AS TAX COLLECTORS

It has been argued in this book that the presence or absence of OPEC since 1974 as an organization does not really matter as far as the oil prices were concerned.

Other writers have thought that OPEC, as an organization, does for the oil producers what a joint sales agency does for a centralized cartel. That is just not the case.

Professor M. A. Adelman advanced another explanation that is based on an institutional factor which is peculiar to the member countries of OPEC. According to Adelman, when OPEC sets its price at a certain level it does so by raising its member governments' taxes per barrel of oil. These taxes that have to be paid by the producing western oil companies 'are in the form of income taxes, in fact excise taxes, in cents per barrel. Like any other excise tax, they are treated as a cost and become a floor to price'. If it was not for this OPEC tax system, the 'cartel would crumble' because,

The floor to price would then be not the tax-plus cost, but only bare cost. The producing nations would need to set and obey production quotas. Otherwise, they would inevitably chisel and bring prices down by selling incremental amounts at discount prices. Each seller nation would be forced to chisel to retain markets because it could no longer be assured of the collaboration of all other sellers. Every cartel has in time been destroyed by one then some members chiselling and cheating; without the instrument of the multinational companies and the cooperation of the consuming countries OPEC would be an ordinary cartel (Adelman, 1973: 87).

The main flaw of Adelman's analysis is this: Why does not any member of OPEC that wants to increase its share of the market just simply reduce its tax rate by 'an incremental amount'?

Since the alleged OPEC cartel price is so high, an individual member country must face a highly elastic demand curve and can increase its revenues by a small tax reduction. Granted that an oil company could not reduce the price at which it will sell oil if OPEC taxes account for almost the entire price, but an oil producing sovereign nation certainly can reduce its tax rate to increase its market share.

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