

*POLICY PAPERS • NUMBER SIX*

**ANOTHER OIL SHOCK IN THE 1990s?  
A DISSENTING VIEW**

**ELIYAHU KANOVSKY**



*THE WASHINGTON INSTITUTE FOR NEAR EAST POLICY*

500 NORTH CAPITOL STREET, N.W. • SUITE 318 • WASHINGTON, D.C. 20001



### ***THE AUTHOR***

Eliyahu Kanovsky is Professor, Department of Economics, at Bar Ilan University in Israel and the Visiting Ludwig Jesselson Professor of Economics at Yeshiva University in New York. He is the author of many works on Middle Eastern economics, including *Saudi Arabia's Dismal Economic Future: Regional and Global Implications*, and he is a regular contributor to the *Middle East Contemporary Survey*. Professor Kanovsky was a Visiting Fellow at The Washington Institute in 1986.

### ***ACKNOWLEDGEMENTS***

The editors would like to thank Gideon Rose for his editorial assistance and Douglas Pasternak for providing research assistance and preparing the tables.

Copyright © 1987

The Washington Institute for Near East Policy



## PREFACE

Oil-exporting countries reaped a revenue bonanza from the oil shocks of the 1970s, and for the first time, Arab states began to wield significant power in the world economy. Many analysts predicted that oil prices would continue their inexorable march upward and that the health of Western economies would forever be dependent on OPEC.

At the height of the oil boom, however, Eliyahu Kanovsky argued that pressures on the oil market would force prices down. History proved him right. Today, oil prices are about half what they were one year ago, and oil-exporting countries have been forced to cut expenditures, face deficits and draw down financial reserves to meet budget commitments.

In the current debate about the future of the oil market, many experts envision the resurgence of a Saudi-led OPEC. The "conventional wisdom" holds that the oil glut is only a temporary phenomenon and that the economic power of oil-exporting states will return in the next decade. Professor Kanovsky once again disagrees.

In this study, Professor Kanovsky argues that the revenue needs of oil exporters, combined with a series of other downward pressures on oil markets, will keep prices low and supply plentiful for many years to come. Not only do his conclusions question the idea of the Western world's energy vulnerability, but they also have important ramifications for how the United States should respond to the political challenges of oil-exporting countries.

The Washington Institute sponsored this study as part of its ongoing effort to provide the Washington-based policymaking community with timely, expert analysis of current Middle East issues. It forms part of The Institute's wider purpose: to promote a better understanding of American interests in the Middle East and the means by which those interests can be served.

I am pleased to note that this is the second Policy Paper prepared with our new, in-house publishing system, which was acquired with the generous assistance of Newton Becker.

Barbi Weinberg  
President  
January 1987



## EXECUTIVE SUMMARY

Contrary to the forecasts of many oil industry analysts, the current state of relatively low oil prices is likely to continue throughout the next decade. As a result, there is little reason to fear the economic power of a resurgent oil cartel.

The strongest force depressing oil prices will be the revenue needs of oil-exporting countries and the increasing competition for market shares. Spending patterns of most oil exporters have showed them to be "large absorbers" of oil revenues. In fact, many OPEC countries have come to rely on continued production and export of oil to satiate their large appetite for revenues. Saudi Arabia, for example, needs oil revenues to maintain the high level of expenditure to which it grew accustomed in the 1970s and to cope with its growing budget deficit. If current trends continue, Saudi Arabia will completely exhaust its once-huge financial reserves in about four years.

In addition, a number of other factors will help keep oil prices down over the long term:

- \* With the eventual end to the Gulf war, both Iran and Iraq will exploit their huge potential as rapidly as possible to repay large foreign debts and to finance postwar reconstruction and development, thereby contributing to downward pressures on prices.
- \* Any increase in consumption as a result of lower oil prices will probably be modest. Improvements in energy efficiency and the trend in fuel-switching away from oil is likely to continue, though at a slower pace. In less developed oil-importing countries, balance of payments and foreign debt problems will pressure governments to restrain oil imports.
- \* Projections of oil demand and supply must take into account the role of technological change and the potential for oil exploration and development. While the impact of these cannot be estimated accurately, the record shows that the errors have almost always been on the side of underestimating future supplies and overestimating future demand.

In short, the United States has not entered, nor is it about to enter, a period of reduced energy supplies. The U.S. government should exploit the current opportunity to promote a free market policy for energy and to oppose, perhaps with countervailing duties, any OPEC attempt to artificially raise oil prices.





# CONTENTS

## PREFACE

*iii*

## EXECUTIVE SUMMARY

*v*

## I. INTRODUCTION

*1*

## II. OPEC'S TIME OF TROUBLE

*3*

## III. SAUDI ARABIA'S REVENUE NEEDS

*5*

## IV. THE REVENUE NEEDS OF OIL EXPORTERS

*10*

## V. THE FUTURE DEMAND FOR OIL

*15*

## VI. THE FUTURE SUPPLY OF OIL

*17*

## VII. ALTERNATIVE SOURCES OF SUPPLY

*20*

## VIII. OTHER DOWNWARD PRESSURES ON OIL PRICES

*22*

## IX. TOWARDS AN AMERICAN POLICY RESPONSE

*25*



## I. INTRODUCTION

The jump in oil prices since the September 1986 OPEC meeting seems to have reinforced the "conventional wisdom" that we have entered, or will soon enter, another era of rising fuel costs. Oil market analysts tell us to anticipate another oil shock in the 1990s, similar to the shocks of 1973-74 and 1979-80. Both economic and political warnings follow from this view: first, Americans should expect high oil prices and scarce oil supplies and second, Washington should curry favor with Saudi Arabia and other Middle Eastern oil exporters because, possessing the largest share of the world's proven oil reserves, they will once again be in the economic driver's seat.

The only problem with the conventional wisdom -- as has been proven repeatedly in this field -- is that it is wrong.

The vast majority of oil analysts in the 1970s and early 1980s predicted increasing scarcity, rising prices, and an economic nightmare. According to this doomsday scenario, the escalation of oil prices in 1979-80 was only the beginning of a new era in which oil prices would annually rise 3 percent or more in *real* terms until, and perhaps past, the end of the century. (By this logic, oil should now cost \$50-60 per barrel and be heading higher.) When oil prices softened after 1981, explanations were legion; they included, for example, the recession in industrialized countries, energy conservation and utilization of stockpiles accumulated by oil companies during 1979-80. Unfortunately, these explanations did not revise the flawed assumption which was at the heart of the faulty projections -- that the Middle Eastern oil-exporting countries were "small absorbers" of revenues.

A cartel dominates a market by controlling the supply of a commodity for which there is a real demand. Through its control over production, a strong cartel can essentially set prices. OPEC came close to being such a strong cartel, many observers believed, because it controlled a large share of the world's oil supply and could vary its oil production at will. In this scenario, the economies of OPEC's dominant members could not absorb huge oil revenues, meaning they did not "need" a constant, large revenue stream. They could, therefore, restrict production and exports over a long period of time and thereby sustain, or even increase, high oil prices. Among those holding this view of OPEC, there was even widespread

discussion at the time about how to "recycle" the (mythical) future OPEC financial surpluses.

In papers published from 1980 onwards, this author has taken a different view, projecting a decline in oil prices and a growth in budget deficits in Saudi Arabia and other Middle Eastern oil exporters. This conclusion was reached largely, though not solely, through an analysis of the internal economic policies of those countries. Contrary to the prevailing wisdom, Saudi Arabia and countries like it *have* absorbed the huge oil revenues of earlier years, and their economies have, in fact, come to depend on future revenue streams of similar proportions.

The economic record has borne out these predictions. Saudi Arabia is now in the throes of a serious and deepening recession, is in its fourth year of large and growing deficits, and has exhausted well over one-half of its once-mammoth financial reserves. The Saudis are extremely worried, and for good reason.

Despite overwhelming evidence to the contrary, however, the conventional wisdom remains intact. In February 1986, the *New York Times* still reported on "the relatively small populations of countries like Saudi Arabia and Kuwait, with their immense financial reserves, [that] can easily bear the austerity that reduced oil revenues would bring..."<sup>1</sup> This misperception of reality is important because it can contribute to economic and foreign policies which run counter to the national interest of the United States. A correct reading of the situation shows that the gloomy forecasts are once again off the mark, and that there is no need to placate a supposedly resurgent OPEC that, despite warnings to the contrary, is actually incapable of holding America's economic lifeline in an iron grip.

---

<sup>1</sup> *New York Times*, February 9, 1986, p. E2.

## II. OPEC'S TIME OF TROUBLE

OPEC, the Organization of Petroleum Exporting Countries, was founded in 1960. During the following decade, oil prices measured in current dollars were stable; in real terms (corrected for inflation), they declined steadily. The sharp rise in prices, which began in 1971, escalated rapidly in 1973-74, and renewed itself in 1979-80, was due to many factors. But despite the popular and "expert" view that OPEC's strength was the main cause of the rise in prices, most of the factors contributing to the price rise were totally unrelated to OPEC. Nevertheless, in this environment of strong demand, OPEC was able to set prices (often ignored by its members); it neither needed nor attempted to fix production quotas. By 1982, however, a decline in the demand and price of oil forced a change in policy, and OPEC has since made several attempts to sustain prices by restricting overall production by means of allocating quotas. Sooner, more often than later, these agreements eroded, simply because some OPEC members needed (or wanted) more revenues than they were receiving under the quota system. Therefore, they sold more than their quotas by offering lower prices.

By the fall of 1985, Saudi Arabia – which had been the cartel's "swing" producer, cutting its own production when necessary to shore up prices – reached the limits of its ability to lower exports and accept less revenue. Financial hemorrhaging left it with no viable alternative; desperate for income, it raised production sharply. However, the Saudis did not anticipate the magnitude of the ensuing price drop. That fall, Saudi Petroleum Minister Ahmad Zaki Yamani spoke of prices dropping to \$22, or possibly \$20, per barrel. In other words, Yamani expected that by doubling Saudi exports, revenues would increase by about 50 percent. But in fact, oil prices have fallen far below the \$20 per barrel mark. As a result, Saudi revenues declined by about 40 percent in fiscal 1985-86.

The most recent agreement to curtail production, reached at the OPEC meeting in December 1986, is one more attempt to stem the revenue losses. One element which contributed to the new accord was the sharp drop in Iranian oil revenues, a consequence of both lower prices and Iraqi bombing. Another factor was the change in Saudi oil strategy. Desperate for revenues in the short term, the Saudis decided to revert to their old policy of restricting production in order to increase prices.

Like its predecessors, however, this agreement is destined to fall by the wayside. Primary among the many reasons for this collapse will be, once again, the OPEC members' need for greater revenues.

### III. SAUDI ARABIA'S REVENUE NEEDS

A close analysis of the internal economic and financial policies of Saudi Arabia and other major Middle Eastern oil-exporting countries supports the simple thesis that governments, like individuals, tend to raise expenditures when revenues rise. OPEC states are not "small absorbers," regardless of the size of their population in relation to the magnitude of oil revenues. While there may be a time lag of a year or more until expenditures catch up with increased revenues, especially when there is a sudden and unforeseen revenue escalation (as in 1973-74 or 1979-80), catch up they will – all the more when governments believe that the new revenue level is permanent or long-term.

Because the vast majority of oil analysts in the 1970s were predicting ever-rising prices and growing Western dependence on Middle East oil, the Saudis saw no reason to restrain their spending. When, contrary to expectations, revenues plummeted, problems began to surface. Again, like individuals, governments find it painful to reduce spending. High expenditures ratchet government outlays to a new, higher floor, in the same way that a newly-rich individual's higher standard of living soon becomes a "necessity." This does not mean that spending cannot be cut. Rather, it just means that such cuts will be extremely difficult and that they will be risky for those who must implement them.

Despite the private enterprise philosophy of the regime, the role of government in Saudi Arabia – and in other Middle Eastern oil-exporting countries – is of overwhelming importance. The government is the recipient and disbursing of oil revenues, and the well-being of the economy, including the non-oil private sector, is acutely dependent on government spending. At the height of the oil boom in 1979-82, Saudi governmental revenues, largely from oil, amounted to nearly two-thirds of the gross domestic product. The economy as a whole enjoyed prosperity as long as the government spent lavishly on infrastructure – such as ports, airports, roads, power plants, and water supplies – and on industry, agriculture, education, health, social welfare, and a wide range of subsidies to both producers and consumers. An examination of the relevant budgets is revealing. (See Table 1.)

Table 1: SAUDI ARABIA'S ANNUAL BUDGETS  
(in billions of current U.S. dollars)

<i>Fiscal Year</i> <sup>1</sup>	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86 <sup>2</sup>
Total Revenues	38.5	37.9	39.3	63.0	104.9	108.2	71.8	59.5	48.4	36.0
<i>of which</i>										
Oil	34.3	32.7	34.4	56.5	96.2	96.6	54.2	41.8	29.3	17.5
Investment Income <sup>3</sup>	3.2	3.3	3.0	4.4	6.4	8.9	14.0	13.5	9.0	6.3
Transfers from Aramco <sup>4</sup>	—	—	—	—	—	—	—	—	4.3	6.5
Other <sup>5</sup>	0.9	1.9	1.9	2.1	2.2	2.7	3.6	4.1	5.8	5.7
Total Expenditures	30.2	39.3	43.7	56.2	71.3	83.7	71.4	66.3	61.1	49.7
<i>of which</i>										
Projects <sup>6</sup>	15.5	19.1	19.2	31.2	37.1	42.8	36.3	31.5	29.8	20.8
Military	9.0	9.1	10.6	16.9	16.5	19.3	19.4	18.4	19.2	16.6
Foreign Aid <sup>7</sup>	2.4	3.2	1.9	2.9	7.4	7.1	3.9	3.7	3.0	3.0
Other <sup>8</sup>	3.3	8.0	11.9	5.3	10.3	14.5	11.8	12.7	9.2	9.4
Balance (Budgetary Basis)	8.3	-1.4	-4.4	6.8	33.6	24.5	0.4	-6.8	-12.7	-13.7
Total Public Sector Expenditures (Cash Basis <sup>9</sup> )	29.6	42.0	43.9	53.3	69.2	78.6	73.8	69.1	62.8	53.5
Balance (Cash Basis)	8.9	-4.1	-4.6	9.8	35.7	29.6	-2.0	-9.6	-14.4	-17.4

Sources: Saudi Arabian Monetary Agency (Central Bank) *Annual Reports*, various issues;  
Ministry of Planning, *Achievements of the Development Plans 1390-1403 (1970-1983)*

Notes:

1. The fiscal years accord with the Muslim calendar, which is lunar and has approximately 354 days. Thus, for example, fiscal year 1976/77 refers to June 28, 1976 to June 16, 1977, and fiscal year 1985/86 refers to March 22, 1985 to March 10, 1986.

2. Figures for 1985/86 are provisional.

3. Investment income refers to income from abroad. Public sector deposits are held by the central bank which manages their investment abroad.

4. Transfers from Aramco are a recent development reflecting the worsening budgetary situation. These were funds set aside from Aramco profits to be used for future investment. The transfer of almost \$11 billion dollars from Aramco to the Ministry of Finance has exhausted the bulk of Aramco's financial reserves.

5. "Other" revenues include customs duties, income taxes paid by foreign companies, income from the sale and rental of state-owned property, and various fees. The large increase in 1984/85 mainly reflects a new requirement that public sector corporations transfer any operating profit to the Ministry of Finance. These surpluses had previously been retained by the corporations for further investment.

6. The "projects" budget includes expenditures on operations and maintenance of the infrastructure. They should more properly be included in current expenditures, i.e., the category designated as "other" in the table. Spending on operations and maintenance was \$7.7 billion in 1983/84; \$7.3 billion in 1984/85; and \$6.2 billion in 1985/86. Figures for earlier years were not specified. Though it is not stated specifically, the "project" budget may include those related to military forces. This may explain, in part, the large discrepancy between the estimates of Saudi military spending offered by the U.S. Arms Control and Disarmament Agency and those given in Saudi budgets. See ACDA, *World Military Expenditures and Arms Transfers, 1985*.

7. Foreign aid figures are not comprehensive. So-called "loans" to Iraq and some other countries are not included. They also differ, for many years, from those given in the balance of payments.

8. The estimate for "other expenditures" derived as a residual shows wide fluctuations. This reflects changes in definitions as well as changes in allocations to autonomous governmental agencies.

9. Public sector expenditures on a cash basis differ from the budgetary accounts insofar as they include autonomous governmental agencies. When the Ministry of Finance allocates funds to these agencies, the total allocation is considered a budgetary outlay in that year even if the agency has not expended those funds during the fiscal year. Public sector expenditures on a cash basis included actual spending of the whole public sector, and the balance on a cash basis is, therefore, a better indicator of surpluses and deficits. This is reflected in changes in public sector deposits held by the central bank.



Following the first oil shock in 1973-74, the Saudis were deluged with income. They announced a five-year plan for 1975-80 with government expenditures totalling \$142 billion. To gauge the magnitude of the change in expenditure policy, consider that projected spending in *each year* of the new plan equalled total government spending in the *previous decade*. Skeptics in the West, including many oil analysts, discounted the sheer physical possibility of raising spending to such high levels in so short a time. The skeptics were proved wrong. Even though many development projects were curtailed, postponed, and abandoned, the Saudis still ended up spending *50 percent more* than planned (measured in current dollars). Costs skyrocketed, military spending overran expectations, the bureaucracy mushroomed, and corruption assumed royal dimensions. By the third year of the plan, the government was already incurring budget deficits, which were soon translated into balance of payments deficits (the current account).

What saved the Saudis (and other oil exporters) from their worsening predicament was not the strength of OPEC nor the acumen of the Saudi leadership. Rather, the rise of Ayatollah Khomeini and the advent of his Islamic revolution led to a cut in Iranian oil supplies, and the widespread fear that the revolution would spread to neighboring oil-exporting countries sparked an unprecedented speculative fever in oil markets. Prices shot up from \$12-13 per barrel in 1978 to \$34-40 per barrel in 1981.

One might have thought that the experience of the late 1970s would have dampened Saudi spending in the early 1980s. Indeed, many analysts at the time believed that the Saudis and others would learn from the Iranian debacle, since it was believed that the Shah's massive spending had caused social instability which contributed to his overthrow. Again, the analysts were wrong. In 1980, the Saudis unveiled a new five-year plan calling for total government expenditures of \$390 billion, *double* actual spending in the previous five years (measured in current dollars). Saudi governmental revenues rose rapidly, from \$38 billion in 1977-78 to \$105 billion in 1980-81; expenditures also rose, from \$42 billion in 1977-78 to \$78.6 billion in 1981-82.<sup>2</sup> Spending was still less than revenues, but it was catching up quickly.

---

<sup>2</sup> These figures refer to actual cash flow expenditures for the public sector as a whole. The budgetary accounts show a steeper rise. See Table 1, note 9.

When oil prices began to soften in mid-1981, the Saudis treated it as a temporary lull. They were reassured by oil analysts who predicted that once the recession in the West ended and stockpiles were reduced, oil demand and prices would resume their upward climb. As the oil glut persisted, the Saudis began to curb expenditures, but a reckoning approached. Huge budgetary surpluses in 1980-81 (\$35.7 billion) and 1981-82 (\$29.6 billion) turned into deficits in the next four years, reaching a nadir of *minus* \$17.4 billion in 1985-86 – equivalent to 22 percent of gross domestic product.

Even this figure greatly underestimates the deficit. First, it does not include Saudi "loans" to Iraq and other countries which have no prospect of repayment. These were off-budgetary loans taken directly from the reserves. Second, it ignores the \$10 billion or more in debt that the government has piled up to contractors and suppliers, most of whom are foreign. Finally, it fails to acknowledge that the Saudi finance ministry tapped nearly all of Aramco's monetary reserves to finance the deficit, squandering \$10.8 billion during 1984-86, which Aramco had set aside for future investment in exploration and development.

Government revenues dropped from a peak of \$108.2 billion in 1981-82 to \$36 billion in 1985-86 – actually \$29.5 billion, excluding the Aramco transfer. During that same period, government expenditures dropped from \$78.6 billion to \$53.5 billion, not counting the delayed payments mentioned earlier, which have yet to be made. Even this bleak situation was not as bad as it could have been, because the Saudis benefited from the rising value of the dollar until the spring of 1985. The bulk of the spending cuts were in the following areas: on-budget foreign aid, which dropped from \$7.1 billion in 1981-82 to \$3 billion in 1985-86; military spending, which dropped from an average of \$19 billion per year in 1981-85 to \$16.6 billion in 1985-86; and especially the investment budget (referred to as "projects") which dropped from \$42.8 billion in 1981-82 to \$20.8 billion in 1985-86.<sup>3</sup> Regarding the latter figure, the "projects" budget includes allocations for operating and maintaining the infrastructure – an area which absorbed \$6-7 billion

---

<sup>3</sup> The category designated as "other," which consists mainly of current domestic expenditures, has undergone various definitions. The decline shown in this category is primarily due to the sharp curtailment of treasury allocations to the so-called quasi-independent governmental agencies, including among others, the Industrial Bank. In the budgetary accounts, when an allocation is made it is considered a budgetary outlay even if the agency does not spend those sums during that fiscal year. See Table 1, notes 8 and 9.

annually during the last few years and should require even more as the infrastructure is completed.

What is noteworthy about these cuts is that current expenditures – including consumer and producer subsidies, payments to a bloated bureaucracy, and social welfare spending – have hardly been touched. Even so, the relatively limited cutbacks have brought about a serious and deepening recession and have contributed to rising discontent. The extreme inequality in income distribution had been tolerable so long as the large majority of Saudi nationals also benefited from government largesse. However, continued lavish and conspicuous spending by thousands of princes and other wealthy Saudis, while the large majority suffer from a recession, can only aggravate tensions and undermine internal tranquility.<sup>4</sup>

The conclusion from the foregoing analysis is clear. Having reached a certain level of spending, the Saudi regime cannot drastically curb expenditures affecting Saudi nationals without incurring serious dangers. As the *Financial Times* stated in April 1986: "King Fahd, who has sound political instincts, has opted to maintain salaries, subsidies, and operations and maintenance spending for the benefit of the ordinary people of the Kingdom."<sup>5</sup> In short, the Saudis *need* higher revenues. Since the diversification program – an attempt to develop industry and agriculture – has not produced revenue and, in fact, still requires state subsidies, the only significant source of income is oil. That is why Saudi Arabia will be forced to sell large quantities of oil over the next few years, even if it means accepting a lower price.

---

<sup>4</sup> An interesting item in this regard is that one of the few growth areas in a worsening Saudi economy was palace construction. See *Financial Times Survey – Saudi Arabia*, April 21, 1986, p. II.

<sup>5</sup> *Ibid.*

#### IV. THE REVENUE NEEDS OF OTHER OIL EXPORTERS

Saudi Arabia's financial predicament is not unique among OPEC members. Although there are some important variations among the smaller OPEC states, the prospect of dire economic straits faces the entire OPEC membership. The cases of Libya and Kuwait are illustrative of this problem.

##### *LIBYA*

As a result of declining revenues and inflexible government spending, Libya has incurred serious balance of payments problems since 1981. Expenditures have dropped, but as in Saudi Arabia, they have not dropped nearly so far as oil revenues, which plummeted from \$22 billion in 1980 to about \$8 billion in 1985. Because of continuing deficits in its current account, Libya's foreign currency reserves fell from \$13 billion in 1980 to \$5 billion in 1985, while Libyan debts to foreign suppliers of civilian and military goods and services rose to at least \$9 billion.<sup>6</sup> The development program has been sharply curtailed, and Western journalists report that half-finished buildings abandoned by foreign contractors for lack of payment are a common sight. Shortages of various consumer goods are widespread.

##### *KUWAIT*

Of all the small population oil exporters, Kuwait has generally been considered the most fiscally prudent. Nevertheless, recent statistics indicate that it too has suffered from a severe deterioration in its finances and from a growing and deepening recession. Budget surpluses have diminished from a high of \$16.7 billion in 1979-80 (when its oil revenues peaked) to zero in 1985-86.<sup>7</sup> The 1986-87 budget predicts a deficit of about \$4 billion; if realized,

---

<sup>6</sup> International Monetary Fund (IMF), *International Financial Statistics*, various issues. No budgetary data have been published for recent years.

<sup>7</sup> Statistics are taken from the Central Bank of Kuwait, which publishes both the *Annual* and the *Quarterly Statistical Bulletin*, as well as from the IMF's *International Financial Statistics*. The figures take account of investment income.

it would be the first deficit in recent Kuwaiti history.<sup>8</sup> Again, even these figures understate the severity of conditions because they ignore "loans" to Iraq and other states that, like similar Saudi loans, were financed directly from reserves and are almost certainly unrecoverable. In addition, they exclude government purchases of shares in Kuwaiti firms threatened with bankruptcy.

On paper, the state financial reserves had a nominal value of \$59 billion in 1985, divided equally between the "General Reserve" and the "Reserve Fund for Future Generations." But the spectacular crash of the unofficial Kuwaiti stock market in 1982, in the context of an overall recession, left the authorities with little choice but to bail out tens of thousands of citizens who were ruined by investing in shares of dubious value. These funds came out of the "General Reserve," as did the "loans" to Iraq; together they account for much of its portfolio.<sup>9</sup> The real value of Kuwait's financial reserves is less than the publicized figure, a problem compounded by the flight of private capital – an economic woe shared by Saudi Arabia and other Arab oil states.

### *IRAN-IRAQ WAR*

Until recently, analysts have either ignored or underestimated the impact of the Iran-Iraq War on oil markets. While short-term price fluctuations have been somewhat responsive to the combatants' fortunes, long-term forecasts seemed to disregard the war or downplay the seriousness of its influence. For example, in a December 1983 report, one major American oil company based its long-term forecast of oil markets on the stated assumption that "OPEC production quotas can adjust [after the war ends] to accommodate Iran's and Iraq's needs to recoup war expenses, i.e., the cost of reconstruction and development."<sup>10</sup> To say that this assumption defies reality is an understatement.

---

<sup>8</sup> *Middle East Economic Digest*, August 30, 1986, p. 19. The planned 1986-1987 budget would be the first to register a deficit when dividends and interest earned from state reserve funds are included in calculations of total revenue.

<sup>9</sup> The much sounder "Reserve Fund for Future Generations" has about three-quarters of its assets invested in the West and most of the rest in Kuwait.

<sup>10</sup> Texaco, *Free World Energy*, December 1983.

Both countries will have a growing need for oil revenues as long as hostilities last and for many years thereafter. Iraq's pre-war financial reserves of about \$35 billion have been exhausted, and it has already accumulated an estimated \$40 billion or more in debt to foreign banks and suppliers of military and civilian goods. Those debts even exclude the "loans" from Saudi Arabia and Kuwait, which are really no more than disguised grants. To meet this need for oil revenues, Iraq has expanded its export pipeline capacity from 650,000 barrels per day (bpd) in 1982 to 1.5 million bpd in 1986, with completion of an additional pipeline with a capacity of half-a-million bpd scheduled for mid-1987. And Iraq has embarked on the construction of still another pipeline, which will run through Saudi Arabia and should raise total capacity to 3.1 million bpd by early 1989.<sup>11</sup>

Rated by some as second only to Saudi Arabia's, Iraq's oil potential is vast; before the war, the government had planned to raise capacity to 5 million bpd by 1985. However, as long as the war continues and Iran succeeds in blocking Iraqi Persian Gulf shipments while Syria blocks the use of the pipeline running through its territory, Iraqi exports are constrained. Efforts to expand Iraqi exports are being made even as the war continues; when the war ends, there should be a major upsurge in oil exports to finance debt repayment, reconstruction costs, and long-delayed development projects. The Iraqi regime has never displayed much respect for OPEC quotas or prices in general, and it is even less concerned with them when circumstances are pressing.

Even before the war, Iran's oil production under the Khomeini regime steadily deteriorated. (See Table 2.) The war initially stimulated an increase in exports from 1 million bpd in 1980-81 to 1.8 million bpd in 1982-83. Iraqi bombings managed to lower that figure to 1.5 million bpd in 1984-85 and to still less in the first half of 1985-86.<sup>12</sup> The Iranians, however, are making desperate efforts to increase exports, and it would be unwise to discount their chances of success. They have announced ambitious economic development plans for the postwar period, and while the Iranian economy is more diversified than the Iraqi, it is still overwhelmingly

---

<sup>11</sup> *Middle East Economic Digest*, August 23, 1986, p. 16.

<sup>12</sup> Exports equal total production minus internal consumption.

Table 2: WORLD OIL PRODUCTION<sup>1</sup>  
(in thousands of barrels per day)

<i>Year</i>	1977	1978	1979	1980	1981	1982	1983	1984	1985
<i>OPEC producers</i>									
Saudi Arabia <sup>2</sup>	9,430	8,550	9,840	10,263	10,173	6,853	5,380	4,963	3,780
Kuwait	2,030	2,180	2,555	1,702	1,152	862	1,055	1,187	1,090
UAE	2,015	1,830	1,830	1,705	1,505	1,252	1,243	1,260	1,350
Iraq	2,350	2,560	3,475	2,645	895	1,010	1,105	1,225	1,435
Libya	2,065	1,985	2,090	1,830	1,220	1,135	1,110	1,105	1,090
Qatar	445	485	510	460	425	340	310	425	310
Algeria	1,150	1,230	1,255	1,120	1,035	1,045	980	1,075	1,040
Arab members of OPEC	19,485	18,820	21,555	19,725	16,405	12,497	11,183	11,240	10,095
Iran	5,705	5,275	3,175	1,480	1,325	2,410	2,465	2,195	2,225
Middle East OPEC <sup>3</sup>	25,190	24,095	24,730	21,205	17,730	14,907	13,648	13,435	12,320
Total OPEC <sup>4</sup>	31,680	30,280	31,465	27,445	23,380	19,930	18,425	18,470	17,225
<i>Other Mideast producers</i>									
Egypt	415	480	525	590	690	705	725	860	880
Oman	340	315	295	285	325	325	390	420	505
Non-Communist world <sup>5</sup>	49,135	48,850	51,280	47,935	44,525	42,075	41,540	42,870	42,215
Non-Communist world, Excluding OPEC	17,455	18,570	19,815	20,490	21,145	22,145	23,115	24,400	24,990
of which United States	9,865	10,275	10,135	10,170	10,180	10,200	10,245	10,505	10,540
Total World	62,560	63,050	65,775	62,745	59,375	57,060	56,685	58,105	56,340

Source: BP Statistical Review Of World Energy, British Petroleum Company, London, 1986.

Notes:

1. Production figures include petroleum, natural gas liquids (NGL), and oil derived from oil shale and oil sands. Currently, the latter two are quantitatively insignificant.
2. The Saudi and Kuwaiti figures include their half shares of the Neutral Zone.
3. *Middle East OPEC* is defined as the Arab members of OPEC plus Iran.
4. OPEC statistics include those for the 13 member countries – the seven Arab countries listed in the table plus Iran, Venezuela, Ecuador, Nigeria, Gabon and Indonesia.
5. *Non-Communist world* is defined as excluding the Soviet Union, Eastern Europe and the People's Republic of China.

dependent on oil revenues to meet foreign exchange needs for imports. Like the Iraqis, the Iranians have no qualms about ignoring OPEC quotas and prices when their needs dictate.

No one involved in long-term forecasting can ignore the possibility that hostilities will cease sometime during the next decade, and that both countries will then unleash their huge oil potential. That alone will add millions of barrels per day to world markets, thereby depressing prices. The combined production of Iraq and Iran at its 1970s peak, it should be remembered, almost equalled that of Saudi Arabia at its peak.



## V. THE FUTURE DEMAND FOR OIL

The focus of this paper is on the enhanced revenue needs of the Middle Eastern oil exporters. However, other factors also have an important impact on world oil markets and require analysis. Among them are: the demand for oil in developed countries, the supply and demand in less developed countries, and the prospects of non-oil energy sources.

Estimating the future demand for oil involves predicting the rate of economic growth; the relationship between economic growth and energy consumption; the composition of GNP (specifically, the role of energy-intensive goods and services); and the composition of the energy basket (specifically, the share of oil within total energy supplies). These are difficult questions, and analysts historically have a poor record in answering them.

From the first oil shock of 1973-74, there has been an almost steady decline in the amount of energy required per dollar of real GNP. In other words, because of newer technology (or the wider application of existing technology), producers have used increasingly less energy per unit of product – be it per ton of steel, per passenger mile, or per degree of heating or air conditioning. This trend has continued even when oil prices have fallen. For example, oil prices dropped 25 percent in real terms from 1974-1978 – 40 percent in Germany and Japan – and yet energy efficiency still improved. It has improved during the 1980s as well, even with U.S. landed prices dropping from over \$36 per barrel in 1981 to \$26.60 in 1985 in current dollars, and further still in real dollars. Between 1973 and 1985, U.S. energy consumption per dollar of real GNP declined 23.6 percent. This does not mean that lower oil prices will have no impact on efficiency over time; they probably will. But structural changes in the U.S. economy mean that their impact will be limited, and it should be even more limited in other countries, particularly Japan, where the rate of energy efficiency improvement has been far more rapid.

What about fuel-switching away from oil? The record shows that oil's share within the total energy basket declined after 1973, reversing the trend of earlier decades. In the United States, oil accounted for only 40.2 percent of

energy consumption in 1985, compared to 45.1 percent in 1973.<sup>13</sup> In Japan, oil's share of energy consumption dropped from 77.4 percent to 55.1 percent; in the non-Communist world as a whole, from 54.5 percent to 44.6 percent.<sup>14</sup> It is difficult to say whether this trend will continue even if lower oil prices persist over a long period; our experience is too limited. What is apparent, however, is that, as with energy efficiency, certain structural changes have taken place which are not easily reversible. As the IMF's *World Economic Outlook* stated in April 1986: "The sustained tendency towards reduced use of energy per unit of output resulted primarily from behavioral changes by end-users of energy [and is] not easily reversible...Moreover, the substitution of non-oil forms of energy for oil is also likely to be sustained."<sup>15</sup> In short, while oil consumption may rise slightly, there simply will not be a return to the days of gas guzzling.

---

<sup>13</sup> U.S. Department of Energy, *Monthly Energy Review*, March 1986, p. 16.

<sup>14</sup> All statistics on oil production and consumption, and on energy consumption as a whole, are taken from *BP Statistical Review of World Energy*, British Petroleum Company, June 1986. This publication provides annual statistics; monthly or quarterly figures in this paper are generally taken from *Petroleum Economist*, London.

<sup>15</sup> IMF, *World Economist Outlook*, April 1986, p. 159.

## VI. THE FUTURE SUPPLY OF OIL

OPEC production declined from a peak of 31.5 million bpd in 1979, roughly the same as in 1973, to 17.2 million bpd in 1985. About 60 percent of this drop resulted from rising non-OPEC supplies; the balance came from an overall reduction in world oil consumption. The sharp increase in non-OPEC oil production was clearly stimulated by the two oil shocks and the high prices which followed. How will lower prices affect future supplies?

If projecting oil demand is tricky, projecting future oil discoveries and supply is even more so. Analysts who predict higher oil prices in the 1990s believe that oil production outside the Middle East will start to fall in the late 1980s and by the early 1990s at the latest. This would leave the Middle Eastern producers once again in command, they argue, and high prices will inevitably follow. The recent collapse in oil prices and the sharp decline in drilling which ensued has reinforced this argument, especially as it has been reported that at the new low prices many so-called "stripper" wells in the United States have become uneconomical.

Undoubtedly, much lower oil prices will reduce oil exploration and the exploitation of marginal wells. The crux of the matter is the extent of the impact of lower prices. A close look suggests that the popular media's picture of rusted derricks and retired wildcatters is overblown. Figures for the first half of 1986 show a drop of 1.1 percent in U.S. oil production as compared with the same period in 1985; in the rest of the non-Communist, non-OPEC world, the decline was a paltry one-tenth of 1 percent.<sup>16</sup> However, it should be noted that this is too short a period from which to draw solid conclusions.

Another factor which may strongly affect future oil supplies is the behavior of the Soviet Union, the world's largest oil producer. Recently, the USSR has succeeded in reversing a downward trend in oil production that began in 1984; its output during the first half of 1986 was 2.4 percent higher than during the first half of 1985. The Soviets also recently announced plans to invest far more in the development of a variety of energy sources,

---

<sup>16</sup> *Petroleum Economist*, August 1986, p. 316.

including natural gas, of which their reserves are the world's largest.<sup>17</sup> Together, these imply a larger exportable energy surplus for Europe. For the Soviets, energy exports are vital, because they provide between two-thirds and three-quarters of the hard-currency earnings required to finance agricultural and technological imports from the West.

While it was recently reported that the Soviets had acceded to OPEC requests to restrict exports to Western Europe from 1.5 million bpd to 1.4 million bpd,<sup>18</sup> in fact those exports had already been down to 1.4 million bpd in 1985.<sup>19</sup> Even had such an agreement been made – the report originated from OPEC, not Soviet, sources – the historical record does not indicate that fulfilling that commitment will be a top Soviet priority. With oil prices only about one-half those in recent years and with Soviet hard currency requirements increasing, the temptation for Moscow to sell more oil and gas will be strong.

What about the long-term projections for oil supplies in the non-Communist world outside the Middle East? In the United States, the number of active drilling rigs rose almost steadily after 1973, to a peak of 3,970 in 1981. By 1985, that number had been halved, and by August 1986, it had dropped to 700-800. But excluding North America, the number of active rigs in non-Communist countries outside the Middle East fell less sharply, from 1,039 in July 1985 to 845 in July 1986 – a drop of 19 percent.<sup>20</sup> It is important to emphasize that this does not mean future oil supplies will decline correspondingly. Not all rigs are created equal, and when oil companies reduce their investment in exploration, they eliminate those areas least likely to make profit.

The record of predicting new oil discoveries, both in and out of the United States, has been abysmal. Interestingly, forecasters have been consistently wrong in one direction – gross underestimation. But two

---

<sup>17</sup> *Petroleum Economist*, August 1986, p. 287-288.

<sup>18</sup> *Wall Street Journal*, August 25, 1986, p. 2.

<sup>19</sup> *The Economist*, January 25, 1986, p. 58.

<sup>20</sup> U.S. Department of Energy, *Monthly Energy Review*, March 1986, p. 68; *Oil and Gas Journal*, August 25, 1986.

specialists, Dr. Peter R. Odell of the Netherlands and Dr. Kenneth E. Rosing of the United States, have recently challenged the thesis of inevitably rising dependence on Mideast oil and increasing prices. Their estimates of potential oil supplies outside the Middle East and the Soviet bloc are far higher than those widely accepted by most oil analysts.<sup>21</sup> It is important to pay attention to such estimates; Dr. Odell was one of only a handful of analysts who argued against the conventional wisdom in correctly predicting the current oil glut.

---

<sup>21</sup> *Petroleum Economist*, October 1983, p. 393-394; September 1985, p. 329-331.

## VII. ALTERNATIVE SOURCES OF SUPPLY

"Unconventional" energy sources, like solar energy, are not likely to be quantitatively significant during this century. The fuel-switching away from oil that has occurred since 1973 has been towards nuclear energy, coal, natural gas, and hydroelectric power; of these, nuclear energy has had by far the highest rate of growth.

### *NUCLEAR ENERGY*

While the accidents at Three Mile Island and Chernobyl will undoubtedly restrain the move towards nuclear power, the anti-nuclear movement varies in impact from country to country. France has been the leader in utilizing nuclear power, and there are no indications that this leadership will be abdicated. The aforementioned Soviet five-year energy plan calls for continued nuclear expansion, and despite Chernobyl, the plan appears likely to proceed. Nevertheless, the overall growth rate of nuclear energy will probably slow down considerably, but the significance of this slowdown can be exaggerated. Nuclear power accounted for only 4.5 percent of total world energy consumption in 1985, and only 5.8 percent in the United States – lower than all other major sources of energy.

### *COAL*

The principal fuel that displaced oil after 1973 was coal – a sharp reversal of earlier trends. Coal accounted for 30.6 percent of total world energy consumption in 1985, compared to oil's 37.9 percent; in 1974 the figures had been coal, 28.4 percent; oil, 46.4 percent. In the United States, coal's 1985 share was lower – 27.5 percent – but it had also risen greatly since 1974. Coal reserves are more evenly distributed than oil reserves, and unlike oil and gas, the United States has the world's largest quantity.<sup>22</sup> The most important question regarding increased coal usage is its relative cost, especially in light of environmental regulations. International coal prices were 27 percent lower in 1985 than at their peak in 1982 (measured in

---

<sup>22</sup> *BP Statistical Review of World Energy*, June 1986.

current dollars); during the same period, oil prices declined 17.5 percent.<sup>23</sup> This decline in coal prices occurred in response to gradually falling oil prices; it is doubtful whether coal producers could match the continuing sharp decline in oil prices in 1986, although over time, technological changes in coal production may permit a more competitive stance.

### NATURAL GAS

Following oil and coal in importance as a source of energy is natural gas, which accounted for 20.1 percent of total world energy consumption in 1985, up from 18 percent in 1974. This increase occurred despite the drop in U.S. consumption of natural gas during this period, caused by, among other things, a maze of government price controls. Elsewhere, natural gas supplies are rising rapidly. Proved natural gas reserves have risen to the energy equivalent of 95 percent of proved oil reserves, compared to 75 percent in 1980 and 30 percent in 1960.<sup>24</sup> While oil reserves have grown greatly since 1960, natural gas reserves have grown even more; Western Europe has abundant and growing supplies (mainly in the Netherlands, Norway, and the United Kingdom), and the Soviet Union and Algeria compete strongly for Western European markets.

In short, alternative sources of supply continue to provide competition for oil even at today's lower prices. Were the price of oil to rise significantly as a result of OPEC efforts to restrict production, these alternative sources would become more competitive.

---

<sup>23</sup> The reference is to international prices as reported by the IMF. See *International Financial Statistics*, August 1986, p. 77-79.

<sup>24</sup> Bankers Trust Company, *Energy Viewpoint*, November 15, 1985.

## VIII. OTHER DOWNWARD PRESSURES ON OIL PRICES

### *THIRD WORLD DEMAND FOR OIL*

Projections published in the last decade have steadily revised oil demand in western industrialized countries downward in light of their unexpected success in improving energy efficiency and switching fuels. Partly compensating for this, analysts have argued that there will be a great growth in oil demand in Less Developed Countries (LDCs). Their projected rate of economic growth will be higher – in line with higher population growth rates – and they will move into energy-intensive heavy industry.

Implicitly, these analysts suggest that the LDCs are incapable of adopting and adapting the technologies which permit greater energy efficiency. Yet in its December 1985 review of world oil markets, Morgan Guaranty concluded that "developing countries whose oil consumption was deemed [by forecasters] to grow inexorably fast, instead showed minimal growth, rising from 10.8 million bpd in 1979 to 11.6 million in 1985."<sup>25</sup> Excluding the LDCs that are oil exporters (in which domestic oil prices are usually very low), there was actually a decline in oil consumption during the period surveyed; this was also noted by the IMF, which focused on oil-importing LDCs.<sup>26</sup>

The projections proved wrong because forecasters have tended to either ignore or underestimate the balance of payments and debt problems faced by many of these countries. These are problems which compel them to reduce imports (including oil) and expand energy exploration activities so that they might in the future become self-sufficient or even net exporters. Two of the major newly-industrializing countries, Brazil and India, are moving in that direction, and they have good prospects of success. Moreover, many of the oil-exporting LDCs (such as Mexico) are reducing domestic oil consumption, implying a larger exportable surplus and, therefore, downward pressure on prices.

---

<sup>25</sup> Morgan Guaranty Trust Company, *World Financial Markets*, December 1985, p. 7.

<sup>26</sup> *World Economic Outlook*, April 1986, p. 156.



### *THE IMPACT OF TECHNOLOGY*

In making long-term projections – over ten or fifteen years – the role of technological changes and wider applications of existing technology can be crucial. There is no way to forecast the quality, magnitude, or impact of such changes, but the historical record warns against underestimation. The changes can be in any of several areas, including energy efficiency, fuel-switching, or oil and gas exploration and development. Change in each of these areas, for example, has been dramatically underestimated in the "standard" forecasts made since 1974.

An imperfect but useful analogy can be found in the widespread famine predictions for LDCs in the 1980s, first made after rises in food prices during the early 1970s. India, for example, was a candidate for disaster, but today it is a grain exporter, along with many other Asian countries which have successfully utilized advanced technology. Neo-Malthusian doctrines, particularly regarding food and energy, should be viewed with a healthy dose of skepticism.

### *GOVERNMENT INTERVENTION*

Another area in which extrapolations of current trends or static models can produce misleading projections lies in estimating the considerable role of government in affecting oil supply and demand. For example, the world's second largest oil importer is Japan, whose government has an explicit policy of reducing the share of oil in its total energy supply and of improving energy efficiency.<sup>27</sup> Its record has been nothing less than remarkable. Between 1973-1985, Japan's GNP grew by almost 60 percent, and yet total energy consumption increased by a mere 3 percent; oil consumption actually dropped 25 percent. In contrast, while U.S. GNP grew one-third during this period, overall energy consumption declined 1 percent, and oil consumption fell 12 percent. Japanese goals – and projections – are that oil's share of energy consumption, which has already fallen from 77 percent in 1973 to 55 percent in 1985, should drop to 42 percent

---

<sup>27</sup> In 1985, Japan imported 4.2 million bpd, second only to U.S. imports of 4.9 million bpd. The total amount of internationally traded oil was 24.1 million bpd.

by the end of the century, and that the Middle East's share of oil imports should decline from 78 percent in 1978 to 55 percent in 1990.<sup>28</sup>

In some countries, the government mandates improved energy efficiency; in others, it offers incentives to produce the same effects – increasing domestic taxes on oil products in order to offset crude oil price declines and thereby restrain consumption. This latter course has been taken by a number of Western European countries, motivated as well by a desire to reduce budget deficits.<sup>29</sup> The memory of oil shocks is powerful, making governments more willing to impose – and citizens more willing to bear – such burdens. Had high oil prices been reached through gradual rises, rather than via perceived blackmail, the actions of governments in oil-importing countries would surely have been different. Similarly, if OPEC should succeed in forcing prices up, governments are likely to intervene again to reduce demand for OPEC oil. The success of this intervention in the past will encourage its utilization in the future should the need arise.

---

<sup>28</sup> Data for oil and energy consumption are from *BP Statistical Review of World Energy*, June 1986 and earlier issues; GNP figures are from *International Financial Statistics*, August 1986 and earlier issues. See also *Wall Street Journal*, January 6, 1986, p. 22 and *Middle East Economic Digest – Special Report – Japan*, December 1985, p. 21-24.

<sup>29</sup> *Oil and Energy Trends*, June 20, 1986, p. 9; *World Economic Outlook*, April 1986, p. 150.

## IX. TOWARDS AN AMERICAN POLICY RESPONSE

A short summary of the points made above provides the proper background for sound American policy:

i) Most analysts believed that OPEC's leading members do not "need" massive oil revenues, and therefore could curtail output over a long period of time; such an ability, they argued, would give the cartel unusual strength. The historical record, not the least of which includes the recent and deepening recession in Saudi Arabia and other Middle East oil exporters, does not bear out this assumption. On the contrary, it shows that the Saudis and their peers have developed a large appetite for revenues, one which can be sated only by oil production and exports.

When Saudi oil revenues grew enormously in 1974, the government raised expenditures sharply in the belief that the large revenue stream would continue. It raised them so high, in fact, that Saudi Arabia incurred deficits from 1977-79. When prices jumped once again after the Iranian revolution, and with them oil revenues, the Saudis raised expenditures once more. But again they incurred deficits when revenues began to fall. Since 1982, the Saudis have had to supplement small spending cuts with large draw-downs from their once-huge financial reserves. If the current trend continues, these reserves will be exhausted within about four years. The prosperity and well-being of the Saudi citizenry is directly and strongly dependent on the magnitude of government spending; expectations of higher living standards have been raised, and frustrating these expectations could be dangerous for the regime. With some variations, the pattern is similar in other small-population Middle East oil-exporting states; in those with larger populations, the situation is even worse.

The revenue needs of these countries and the increasing competition for market shares will be the strongest force depressing oil prices in the foreseeable future. These are what have caused the erosion and breakdown of OPEC agreements to curb output in the past and what will cause such actions again. Up to now, stronger links in the OPEC chain have partly compensated for the problems of weaker ones; there are few if any truly strong links left. It is noteworthy that Saudi production in November 1986 was at least 600,000 bpd higher than its allotted quota under the OPEC

agreement.<sup>30</sup> Another report stated that Saudi production was even higher – "about 6 million barrels per day, well above its current OPEC quota of 4.3 million barrels."<sup>31</sup> No less noteworthy is the report that both the United Arab Emirates and Kuwait "have exceeded their allotted quotas since the October [1986] meeting of OPEC."<sup>32</sup>

ii) Adding to downward pressures on prices will be the effects of the Gulf war. While in its initial phase, the war's primary impact was felt in terms of strongly reduced world oil supplies (particularly from Iraq) and higher prices. But as hostilities continue, the revenue needs of the combatants inexorably rise. These needs can be filled only through expanded oil exports. Iraq has already increased its export pipeline capacity and will continue to do so. Although Iraqi bombings have restricted Iranian oil exports, Iran is determined to construct alternate routes, and it may well succeed. When the war ends, and that prospect must be considered in long-term projections, both countries (but especially Iraq) will exploit their huge potential as rapidly as possible to repay large foreign debts and to finance postwar reconstruction and development. Together, their peak oil production rivaled Saudi Arabia's, and neither has been squeamish in the past about undercutting prices to increase sales.

iii) While lower prices will lead to increased oil consumption, that increase will probably be modest. The experiences of 1974-78 and 1982-85, when real oil prices were declining, indicate the magnitude of structural changes in the economies of the industrialized countries. Improvements in energy efficiency and the trend in fuel-switching away from oil will continue, though probably at a slower pace. In less developed oil-importing countries, balance of payments and foreign debt problems will pressure governments to restrain oil imports; these governments, along with their industrialized counterparts, have already begun to impose taxes on oil products as one way to limit consumption as well as raise revenues.

iv) Lower prices will probably lead to decreased supplies of oil from outside the Middle East; drilling activity in the United States, for example,

---

<sup>30</sup> *Middle East Economic Digest*, November 29, 1986, p. 26.

<sup>31</sup> *New York Times*, December 11, 1986, p. 27.

<sup>32</sup> *Wall Street Journal*, December 15, 1986, p. 6.

has already dropped sharply. But apart from North America, the decline in drilling in the non-Communist world outside the Middle East has been moderate. Further, the decline in supply will be less than the decline in drilling, because the areas abandoned are those with the least prospect for success. In less developed countries outside the Middle East, revenue problems will lead to continued exploration in order to achieve oil self-sufficiency and increase exports. Moreover, the Soviet Union has apparently succeeded in reversing its two-year old decline in oil production, is planning major new investments in energy production, and is likely to try to increase energy exports to Western Europe to meet its hard currency needs.

"Standard" projections of limited oil potential in the non-Communist world outside the Middle East have been disputed by specialists with excellent prediction records. Not only do they estimate that such oil potential is actually much higher than is thought, but they also conclude that the forecasted rising dependence on Middle East oil in the 1990s is not likely to occur.

v) Long-term projections of oil demand and supply must take into account the emergence of new technologies and the wider application of existing ones. While the impact of these cannot be estimated accurately, the record shows that the errors have almost always been on the side of underestimating future supplies and overestimating future demand. Technological change has led in the past to major improvements in energy efficiency and fuel-switching, and it has produced more rewarding exploration and development. It would be foolhardy to ignore its influence in the future.

In short, there are many factors operating to restrain or even depress real oil prices over the long run. Of course, none of the above should be taken to imply that prices will remain constant at the current \$15 per barrel for the next five, ten, or fifteen years. There can and will be fluctuations, the result of such tumultuous events as wars and revolutions in oil-exporting countries. Even so, the likelihood of a return to the frantic speculation and skyrocketing prices of 1979-80 is remote. There are several reasons for this: U.S. and European dependence on Middle East oil has sharply diminished; dependence on oil passage through the Gulf's vulnerable Strait of Hormuz has dropped dramatically (from 17.5 million bpd in 1975 to 6.5 million bpd in 1985) and will continue to do so as new pipelines are constructed; outside

the volatile Persian Gulf region there is considerable excess capacity; and the U.S. and several other industrialized countries have amassed significant oil reserves of their own.<sup>33</sup>

Several specific policy recommendations follow from the preceding analysis. The most important point to be understood is not that any particular measure is necessary (although some will be discussed below), but rather that policymakers should understand the general climate which lies ahead. **The United States has not entered, nor is it about to enter, a period of reduced energy supplies.** Of course, it is always wise to take precautions against unforeseen events; the recent administration decision to increase the Strategic Petroleum Reserve, for example, was prudent. But in a larger framework, U.S. energy policy in particular, and its foreign policy in general, need not be planned around the notion of a resurgent OPEC threatening our economy.

U.S. interests are served by free, or at least freer, markets for energy, both nationally and internationally. This does not mean that there should not be any energy policies, but rather that the goal of the policies should be the free flow of oil where the market will take it. It may be recalled that one of the first acts of the Reagan Administration on assuming office in January 1981 was the abolition of oil price controls. Many argued at the time that this would lead to a large and long-term increase in domestic oil prices. In fact, after an initial small price rise, prices started a long decline to levels far below what they had been under the controls. At first, higher prices stimulated more conservation and energy efficiency, as well as fuel-switching away from oil – all of which, in turn, led to reduced demand and thus lower prices. As the United States alone consumes one-quarter of world oil, its actions had – and continue to have – a powerful impact on world oil markets. In retrospect, one can see that oil prices worldwide peaked in the first quarter of 1981.

Supporting free markets, however, does not mean passively accepting everything other countries choose to do. Free trade should be multilateral, not unilateral. If a trading partner takes one-sided actions inimical to U.S. interests, the administration would be remiss in not countering such actions

---

<sup>33</sup> Had these oil reserves existed in 1979, speculative fever would have been dampened and prices would have risen far more moderately.

by instituting or threatening to institute countervailing duties on that country's products. OPEC efforts to restrict oil exports and thereby raise prices are tantamount to the imposition of a foreign tax on American oil buyers. While the OPEC agreement will probably erode within six months to a year, as suggested above, during its short life billions of dollars will be paid to OPEC that would not be paid if a free market prevailed.

The administration's immediate reaction to the August 1986 OPEC agreement was unequivocally negative. The Secretary of Energy declared that it was "unhealthy for Americans" and "unacceptable;" the White House and State Department issued statements condemning interference by the OPEC countries in the operation of free markets.<sup>34</sup> The agreement was welcomed, however, by the domestic oil industry and those industries which are helped by its success, and Wall Street seemed pleased. Since its initial statements, the administration has remained silent, and some within it are undoubtedly glad that the domestic "oil patch" has been rescued, obviating the need for the administration to sully its hands with an oil import fee or other similar measures.

Is it really necessary to pay OPEC a tax in order to aid the U.S. oil industry?

Many policy proposals have been put forward by disinterested economists to counter the OPEC tax, including suggestions for a general oil import fee (fixed or variable) and a higher tax on gasoline.<sup>35</sup> Even better suited to the current situation, it seems to this author, would be the imposition of countervailing duties on oil imports from those nations which have contrived to raise prices. If such duties were in place, the desperate need for revenues and the intense struggle for markets would soon compel those countries to lower prices once again. In other words, while domestic prices might rise initially (though by less than the duty), competitive forces would be strengthened and prices would eventually drop. The fragility of OPEC makes this occurrence all the more likely. Adopting this policy would aid the U.S. oil industry at the expense of its principal competitors and would encourage foreign oil exporters to flout the OPEC agreements.

---

<sup>34</sup> *New York Times*, August 6, 1986, D3.

<sup>35</sup> See, for example, E.R. Fried, "World Oil Markets: New Benefits, Old Concerns," *The Brookings Review*, Summer 1986.

Moreover, such a policy would accord with the current administration's free market philosophy and stated refusal to give in to blackmail.

The United States should not aim for so-called "oil independence." Not only would it be far too costly but it is simply unnecessary. Rather, the goal of U.S. policy should be a wider diffusion of sources of world oil supplies and a freer market for them. These two goals are mutually reinforcing, as the greater the diffusion of sources of supply, the greater the difficulty exporters would have in combining to restrain trade. Encouraging the World Bank to allocate more resources to less developed countries for exploration and development of oil and other energy supplies would help achieve such a wider diffusion as well as further reduce the danger of Persian Gulf supply disruptions.

Another policy alternative which should be considered is the establishment of a "common market" or free trade area in energy with Canada, Mexico, and perhaps other countries in the Western Hemisphere. The free trade agreement with Canada regarding the automobile industry could serve as a precedent and model, although there are obviously many differences. While such a proposal would require careful study and lengthy negotiations with prospective partners, it is well worth exploring for the longer term.

In conclusion, it should be emphasized that the United States has within its power the ability to counter energy cartels and to bring about freer markets. The foregoing survey shows that the vaunted strength of OPEC rests on shaky foundations for the foreseeable future and that policy tools are available to defend U.S. interests intelligently and at minor political or economic cost. Economic forces alone will force Middle East oil exporters to come to terms with the new reality.



**THE WASHINGTON INSTITUTE FOR NEAR EAST POLICY**

**POLICY PAPERS SERIES**

*Editor:* Martin Indyk  
*Associate Editor:* Robert Satloff  
*Publications Manager:* Brooke Joseph

- 1: Dennis Ross                    *Acting with Caution: Middle East Policy Planning  
for the Second Reagan Administration*  
(out of print)
- 2: Ze'ev Schiff                    *Israel's Eroding Edge in the Middle East Military Balance*  
(\$3.00)
- 3: Barry Rubin                    *The PLO's Intractable Foreign Policy*  
(\$3.00)
- 4: Hirsh Goodman                *Israel's Strategic Reality: The Impact of the Arms Race*  
(\$5.00)
- 5: Robert Satloff                *'They Cannot Stop Our Tongues:' Islamic Activism in Jordan*  
(\$3.00)
- 6: Eliyahu Kanovsky            *Another Oil Shock in the 1990s? A Dissenting View*  
(\$3.00)
- 7:  
  Amos Gilboa                    *Averting the Next Arab-Israeli War*  
  John Hannah                   *The Soviet Commitment to Syria*  
                                      *Superpower Efforts at War Prevention*  
                                      (forthcoming)

*To order copies of Policy Papers, please contact:*  
*Publications Manager*  
*The Washington Institute for Near East Policy*  
*500 N. Capitol Street N.W. Suite 318*  
*Washington, D.C. 20001*  
*(202) 783-0226*

