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OUT OF
GAS

ARCO

FOR USE AS A
MOTOR FUEL ONLY
**CONTAINS
LEAD**
ANTIKNOCK COMPOUND

Reflections on the Oil Shock of 40 Years Ago

*The 1973–1974 energy crisis produced many lessons, but **Joel Darmstadter** cautions that the benefits of moving toward US energy independence should not be overdrawn.*

In recalling those oil producers “whose embargo once brought the industrial world to its knees” (*Baltimore Sun*), commemorative coverage of the worldwide price shock of 1973–1974 may sometimes veer toward the dramatic. Still, one would have to be a committed contrarian to downplay the seriousness of the shock. The virtually unprecedented and precipitous more-than-threefold increase in the real price of a barrel of oil not only produced significant near-term economic damage in the United States and elsewhere but also

sharpened intense policy concerns about the implications for future vulnerability of energy-dependent societies.

Background on the Crisis

What key elements drove that upheaval of 40 years ago? No episode of turbulence in the Middle East exists in isolation from what has gone before and is likely to recur. That said, the oil shock’s precipitating genesis was the outbreak on October 6, 1973, of the Yom Kippur War. This conflict, the fourth Arab–Israeli war in 25 years, began with a

coordinated attack by Syria and Egypt in an effort to reclaim lands lost to Israel during the 1967 Six-Day War.

The October outbreak of hostilities was followed by two events—the first was political and, as it turned out, largely symbolic; the second was painfully economic. First, in October 1973, the Arab–Israeli conflict prompted a group of Arab oil producers to institute a selective embargo on oil exports. The second development was a collective decision by member countries of the Organization of the Petroleum Exporting Countries (OPEC) to raise the price of oil.

The embargo, by far the easier issue to consider, was conducted by a somewhat shifting group of Arab oil exporters that embraced a fairly ambiguous set of goals during its relatively brief six-month existence. (The embargo was formally terminated in March 1974.) In essence, it targeted the United States and the Netherlands with oil delivery shortfalls as a protest against the two nations' presumed support of Israel. Yet, to demonstrate the achievement of this objective—or that of any embargo—one would need to find statistical evidence of manipulated and extended export restrictions. No such evidence exists, notwithstanding an embargo announcement, pledging supportive output reductions.

Several major non-Arab oil producers (and OPEC members)—among them Venezuela and Iran—failed to join the embargo. In addition, all indications suggest that an effective rerouting of world oil flows spared the intended targets any major disruption in supply. These logistical responses, though no doubt entailing some added transportation costs, are separable from the genuine damage inflicted by the steep rise in oil prices. In short, it is hard not to view the embargo as a largely symbolic and limited expression of political sympathy by Arab oil producers.

If, judged by its futility, the embargo was mostly a token gesture, the dramatic rise in the price of oil was anything but. To probe how the world demand for and supply of oil came to intersect and settle at such a dramatically higher price, one needs to explore the degree to which shifting consumption, production, or both represented the principal driver of change. In fact, a good case can be made that both factors did play an important role.

One conspicuous thrust on the demand side came from the United States, whose rapidly expanding oil needs in the years leading up to the oil shock also translated into sharply rising import dependence: the country's net oil import dependence rose from 22 percent in 1965 to 37 percent in 1973. Though difficult to document, another likely cause on the demand side was aggressive inventory buildup motivated by a tense and rapidly worsening political situation in the Middle East.

The weight assigned to supply-side developments is somewhat more problematic. With OPEC rightfully viewed as a quasi-monopolistic entity, it is not unreasonable to look for evidence of engineered shortages—particularly as manipulated by OPEC's leading producer, Saudi Arabia—to ensure viability of the higher price. Whether Saudi Arabia, in fact, possessed and deliberately withheld a volume of producible spare capacity sufficient to support the new price level is certainly a plausible, but hard-to-prove, contention. What is clear from Table 1 on page 29 is that OPEC production overall, and Saudi production in particular, was maintained at essentially unchanged output levels over the course of the Yom Kippur War and for some time beyond. As Douglas Bohi and I concluded in a 1996 retrospective, while "the common perception is that OPEC engineered the whole thing, facts do not support that perception."

Table 1. Oil Production, Consumption, and Price at the Time of the Oil Crisis

	1970	1972	1973	1974	1975
OIL PRODUCTION (MBD)					
United States	11.3	11.2	10.9	10.5	10.1
OPEC	22.8	26.4	29.9	29.7	26.2
<i>Saudi Arabia</i>	3.9	6.1	7.7	8.6	7.2
<i>Venezuela</i>	3.8	3.3	3.5	3.1	2.4
<i>Iran</i>	3.8	5.1	5.9	6.1	5.4
<i>Other</i>	11.3	11.9	12.8	11.9	11.2
Rest of world	14.0	16.1	17.7	18.4	19.5
World total	48.1	53.7	58.5	58.6	55.8
OIL CONSUMPTION (MBD)					
United States	14.7	16.4	17.3	16.6	16.3
Rest of world	30.8	35.2	38.4	38.3	38.2
World total	45.5	51.6	55.7	54.9	45.5
Price per barrel (2012\$)	\$10.64	\$13.61	\$17.00	\$53.94	\$49.21

Notes: mbd = million barrels per day; production refers to crude oil; consumption, to all oil-derived refined products.
Source: BP. 2013. Statistical Review of World Energy 2013. Excel worksheets, 1951–2011. London: BP.

Few Available Policy Responses

Several subsidiary factors played a part in both the demand-side and supply-side scheme of things. The persistence of US oil price controls dating from the first term of the Nixon administration precluded any new US crude oil production from realizing the sharply higher prices fetched by imported oil. This disincentive to expand output contributed to an artificial supply shortfall and the lengthy gas station lines that remain among the more memorable features of that period.

Did the United States have at hand other policy options that could have moderated the economic fallout from the oil shock? With the substantial outflow of dollars to overseas producers, more stimulative

monetary expansion might have compensated for shrinking levels of domestic purchasing power and eased the depressed state of economic activity. But concern with managing the lingering inflationary legacy of the Vietnam War posed a concurrent, but conflicting, policy challenge. Given that the US price level was growing at around 4.5 percent yearly, even with stagnating gross domestic product during 1973–1975 and an unemployment rate rising from 4.9 to 8.5 percent over those years, the oil-induced recession evidently took a backseat to the priority accorded to the need for monetary restraint. Although circumstances outside the United States varied, few countries were spared significant economic stress. In both Britain and Germany, for example,

gross domestic product stagnated for three years running.

Lessons and Some Cautionary Reflections

Following the oil price shock of 1973–1974, the balance of the 1970s saw prices steady-ing at around \$50 per barrel. But then, with the outbreak of the Iranian Revolution, the earlier shock was powerfully reinforced, with prices doubling to \$100 per barrel in 1979–1980. (It took until the mid-1980s for the price to slide to the \$30 range.)

Taken together, the two events produced a number of important lessons—some more tangible and positive than others. Among the well-grounded legacies is the extent to which the energy turmoil experienced in the 1970s helped set the nation on a course of steadily rising energy efficiency. Fostered through private innovation and driven by policy initiatives, this increase occurred principally in the use of oil but was apparent in other forms of energy as well. Transportation, household appliances, and electric generation were among the sectors benefiting from that development. The less energy-intensive the economy, the more resilient it is to new energy shocks.

Freer energy market conditions were another positive, if indirect, outcome of the oil shock. The stultifying and perverse impact of price controls would have deserved attention even in the absence of disruptive market turmoil, as in 1973–1974. But it is reasonable to surmise that their damaging effect in the oil shock helped spur the staged removal of oil price controls between 1979 and 1981 and, more broadly, served to discourage such regulatory intervention as a major line of defense in future energy and economic upheavals.

Still one more consequence of the oil price shock was the reprieve it provided the coal industry in effectively ending oil's role

as a power generation fuel. I use the word “reprieve” because today, coal itself can't stave off competition from lower-cost, less-polluting natural gas. Indeed, the post-oil shock years witnessed striking advances in petroleum exploration and development on a broad front. Notable examples include seismic exploratory techniques, horizontal drilling, and the steadily increasing depth of offshore production. Coupled with major and more recently emergent shale gas and shale oil plays, that momentum shows no early sign of letup.

A somewhat more blurred legacy of the oil shock trauma is the degree to which it has seemed to invigorate the ideal of “energy independence” and, as an important by-product, America's national security. Before and after the 1973–1974 and 1979–1980 shocks, the country's self-sufficiency in fuels has been invoked as a bulwark against externally caused turmoil. Within that almost reflexive mindset, the country's successful expansion of gas and oil reserves and production has led to an almost palpable and collective sigh of relief over the prospect of now being shielded from a recurrence of economically ruinous energy shocks from abroad.

But lurking as a kind of backdrop to that feeling of relief, one catches a whiff of growing political pressure discouraging any readiness to share these newfound riches with the rest of the world. Why risk renewed import dependence after having achieved a goal pursued so persistently and passionately over the years? Far better, some inward-looking legislators argue, to preserve restrictions against crude oil exports enacted in the oil shock period. (Stephen Brown and Charles Mason consider the export issue explicitly in their article beginning on page 38 of this issue). Roger Sedjo and I have recently looked at the energy independence–security nexus in a series





of blog posts that emphasizes America's inescapable vulnerability to conditions and upheavals in world energy markets, even as we recognize significant and unalloyed benefits to the country from an expanding, indigenous resource base.

Unquestionably, enhanced profits to domestic firms, expanded job opportunities, some reversal from offshoring back to the United States in the location of investment in energy-intensive manufacturing—these are components of that new environment. And in a less tangible respect, recourse to a domestic (or, for that matter, North American) barrel of oil that equals, or substitutes for, a barrel originating in a geographically unstable supply source is an achievement not to be taken lightly.

In the final analysis and in a broader perspective, however, pursuit of a coherent multilateral trade and investment network offers greater benefits than a regime hewing

to a revived embrace of autarchy. Arguably, such a mutuality of interest may become ever more critical as the urgency of facing up to global warming and other environmental realities begins increasingly to be seen as intimately linked with global energy trade and development strategies. ●

FURTHER READING

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- Darmstadter, Joel, and Roger A. Sedjo. 2012. Energy Independence—What Then? *Common-Resources.org*, November 15. <http://common-resources.org/2012/energy-independence-what-then-part-one-the-central-ity-of-oil/>.
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