

**FOREIGN
AFFAIRS**

Published by the Council on Foreign Relations

October 15, 2013

SNAPSHOT

How the 1973 Oil Embargo Saved the Planet

OPEC Gave the Rest of the World a Head Start Against Climate Change

Michael L. Ross

*MICHAEL L. ROSS is Professor of Political Science at the University of California, Los Angeles, and the author of *The Oil Curse: How Petroleum Wealth Shapes the Development of Nations*.*

Forty years ago this week, six Persian Gulf oil producers voted to raise their benchmark oil price by 70 percent. Over the next two months, the Arab members of the Organization of the Petroleum Exporting Countries (OPEC) cut production and stopped oil shipments to the United States and other countries that were backing Israel in the Yom Kippur War. By the time the embargo was lifted in March 1974, oil prices had stabilized at around \$12 a barrel -- almost four times the pre-crisis price. In 1973, that oil shock looked like a triumph for OPEC and a calamity for the rest of the world. The OPEC states enjoyed enormous windfalls and new geopolitical influence, whereas the United States and other oil importers were hit by unprecedented fuel costs and painful recessions.

But over the last four decades, those fortunes have reversed: higher oil prices in the OPEC states have led to spiraling corruption, stagnation, and political repression. In the rest of the world, expensive oil triggered a surge of investment in alternative energy and drastic improvements in energy efficiency. The 1973 oil shock holds an even greater irony. The panic that it induced brought sweeping changes to global energy policies in the 1970s and 1980s in preparation for the imminent depletion of global oil and gas reserves, which turned out to be illusory. The effort to avoid that imaginary crisis helped the non-OPEC countries cope with a real one, leading to energy conservation and investment policies that fortuitously brought about enormous reductions in global carbon emissions. The OPEC members that created the oil crisis inadvertently gave the rest of the world a life-saving head start in the struggle to avoid, or at least mitigate, the threat of catastrophic climate change.

THE OIL BREAK

The 1973 oil crisis shocked most Americans because it was a rebuke to the growing prosperity of the

postwar era, which was built on an ocean of cheap energy. Since the end of World War II, the real price of oil had steadily declined; a barrel of crude cost less in 1970 than at any time since the Great Depression. Until 1971, the U.S. government was worried more about the dangers of too much foreign oil than too little. To protect domestic oil interests, oil imports to the United States were limited by a quota system established in 1959 under President Dwight Eisenhower. Foreign leaders from oil-exporting allies such as Canada, Iran, and Venezuela lobbied the White House for permission to sell more oil to U.S. consumers.

In retrospect, it is easy to see the signs that global energy markets were on the cusp of a revolution. For a century, the United States had simultaneously been the world's largest oil producer and its largest oil consumer. Until 1947, it produced more than it consumed and was a net oil exporter to the rest of the world. After 1947, the United States became a net importer as growing consumption outpaced slowing production. Despite its reliance on imports, the United States remained the pivotal actor in global petroleum markets, thanks to its policy of limiting production in the vast oil fields of East Texas. That strategy allowed the United States to function as a "swing producer," able to boost or trim production to stabilize global supplies and prices (just as Saudi Arabia does today).

When the supply of oil from other countries was disrupted -- due to the Western embargo against Iran in 1953, the Suez Crisis in 1956, and the Arab embargo that followed the Six-Day War in 1967 -- the United States boosted its own production, compensating for any shortfall and keeping global prices steady. But in October 1970, U.S. oil production peaked; there was no spare capacity left in East Texas. All of a sudden, the only countries with unused capacity, and hence the power to manipulate global oil markets, were the members of OPEC. Just a few years earlier, those OPEC governments would have been unable to take advantage of their new market power. Since the 1930s, a cadre of U.S. and European companies, the so-called Seven Sisters, controlled the vast majority of the extraction, export, and shipping of oil in the noncommunist world.

The Seven Sisters brought stability to global energy markets, but only through a deeply unjust system. Both Iraq and Libya, for example, had vast untapped oil fields that their governments were eager to develop. When the Seven Sisters refused to support production in those new fields, the Iraqi and Libyan governments had no recourse and were forced to leave them idle. But the Seven Sisters' grip on oil markets loosened in the late 1960s and early 1970s, when the oil-exporting states of the Middle East, Latin America, Africa, and Asia won greater control over their own supplies. They did so thanks to three developments: the emergence of independent oil companies that were willing to offer better terms to the oil-exporting governments, the tightening of global petroleum supplies, and the rising power of OPEC.

Between 1971 and 1973, OPEC members repeatedly met with the major oil companies to demand higher export prices, higher tax rates, and greater equity in their local subsidiaries. The companies had little choice but to agree. As the oil economist Walter Levy wrote in *Foreign Affairs* in 1971, "The economic terms of the world oil trade have shifted dramatically." In late 1970, the White House began to notice that the increased dependence of the United States on OPEC oil, combined with the heightened power of the OPEC governments, made the United States vulnerable to an oil embargo. A November 1970 National Intelligence Estimate, declassified in 2011, concluded that partial interruptions of oil flow from the Middle

East to the United States and NATO countries “will probably occur during the next five years” and that “in the event of major Arab-Israeli fighting, some interruption of oil shipments seems almost certain.”

In April 1973, President Richard Nixon announced a package of new energy policies designed to alleviate fuel shortages that had broken out around the country and reduce U.S. dependence on imported oil. They included an end to the system of import quotas, the deregulation of natural gas prices, and incentives to expand domestic energy production. The policies were almost exclusively focused on boosting production; they contained only token, voluntary measures to promote energy conservation.

THE OPEC WINDFALL

In the space of six years, total government revenues more than tripled in Iran, Nigeria, and Saudi Arabia, and more than doubled in Venezuela and Indonesia. OPEC’s triumph inspired leaders in other developing countries to call for a new international economic order to overturn the dominance of the West. But the 1973 shock did not merely raise prices, enriching OPEC states; it made them unstable and that wealth hard to maintain.

Stable oil prices were a historical anomaly. From the 1860s to the end of World War II, oil markets were prone to wild price fluctuations. The steadiness of oil prices in the 1950s and 1960s was made possible by three forces: the dominant market position of the Seven Sisters, the excess capacity of the East Texas oil fields, and the Bretton Woods system of fixed exchange rates.

In the early 1970s, each of these forces crumbled. The Seven Sisters lost their market power, the East Texas fields began to decline, and Nixon took the dollar off the gold standard. The immediate result was the 1973 oil shock. The longer-term result was a new world of spot markets, speculation, and volatile prices. The Iranian Revolution in 1978 and 1979 caused oil prices to double once again. By the early 1980s, consumption in Western countries had slowed, while non-OPEC producers -- such as Norway, the Soviet Union, and the United Kingdom -- were rapidly boosting their exports. Between 1980 and 1986, oil prices tumbled more than 70 percent.

All the major oil exporters saw their economies collapse. Mexico defaulted on its foreign debt. The Soviet Union, which relied on oil for 80 percent of its hard currency earnings, entered a terminal economic crisis. In the OPEC states, most of the gains from the 1970s were erased. Even today, half of them remain poorer than they were at their 1970s peak. The political consequences of the oil shock were even worse than the economic ones. Petroleum wealth tends to concentrate power in the hands of the state, especially when the industry has been nationalized.

The monarchs and dictators who headed most of the OPEC states used their windfalls to shower supporters with largess, silence their critics, and enrich their families. Massive national oil companies became vehicles for patronage and corruption, and made it easy for rulers to cloak their revenues in secrecy. Tens of billions of dollars were sunk into military forces. The explosive growth in spending caused the current account surpluses (exports minus imports) created by the first oil shock in 1973 to evaporate by 1978. The surpluses produced by the second oil shock in 1980 vanished in just two years.

In some countries, the oil shock, and the frustrated expectations it engendered, helped incite protests,

coups, and in Iran, a revolution. In others, it led to the entrenchment of petroleum-backed Gulf monarchs or brutal dictators such as Libya's Muammar al-Qaddafi and Iraq's Saddam Hussein. Most of these regimes have proved highly durable. While the rest of the Western world was swept by a democratic wave in the 1980s and 1990s, almost all the oil-rich regimes survived intact. Even the Arab Spring left most of them unscathed; only Libya's Qaddafi was dislodged, thanks to NATO's intervention.

THE SURPRISING GREEN RESPONSE

For oil-importing countries, the 1973 oil shock triggered years of inflation and stagnant growth. It also fostered a widespread belief that the world was running out of oil. In the space of just a few years, Americans went from believing that oil would remain cheap forever to believing it would soon run out. The U.S. government's response was bipartisan and far-reaching. Nixon pushed emergency conservation measures through Congress, including a nationwide 55-mile-per-hour speed limit. President Gerald Ford signed legislation that established mandatory fuel economy standards.

Shortly after President Jimmy Carter took office, he delivered a televised national address on the energy crisis, which he described as "a problem unprecedented in our history." "With the exception of preventing war," he continued, "this is the greatest challenge our country will face during our lifetimes." Drawing on Central Intelligence Agency estimates, Carter warned that oil wells "were drying up all over the world." His secretary of energy, James Schlesinger, predicted "a major economic and political crisis in the 1980s as the world's oil wells start to run dry." To curb oil imports, Carter pushed for both conservation and price deregulation and greater reliance on solar energy, coal, and "synthetic" fuels made from coal and shale. Even one of President Ronald Reagan's market-oriented policies made a difference: removing price and allocation controls in 1981 promoted conservation and fuel-switching, although the global collapse in oil prices later nullified these effects.

Bipartisan support for research on energy and conservation was equally important. From 1973 to 1979, federal research funds rose sevenfold. Some investments yielded little, including the billions of dollars that were sunk into synthetic fuel and nuclear fission. But other investments paid off. The remarkable growth in shale gas production in the 2000s can be partly traced to federally funded programs and subsidies in the 1970s, 1980s, and 1990s, which led to breakthroughs in drilling, fracturing, mapping, and shale gas recovery. Of course, none of these policies or programs was designed to reduce carbon emissions. Few policymakers took climate change seriously before the summer of 1988, when NASA climatologist James Hansen issued clear, conclusive warnings of human-induced climate change to the Senate during a record heat wave, causing a media sensation. Some of the post-1973 policies, such as the promotion of coal-fired power plants, may have boosted carbon emissions. Yet on balance, the conservation and research policies triggered by the oil shock have probably done more to curb carbon emissions than any policies after the embargo.

Since 1973, the energy intensity of the U.S. economy, which is the amount of energy consumption per unit of GDP, has fallen by more than half; petroleum use per capita has dropped by more than a third. The most important change has been the deceleration of total carbon emissions, which is what matters most for mitigating climate change. In the decade before 1973, carbon emissions rose almost 4.5 percent annually in the United States; since 1973, they have risen less than 0.4 percent a year. In Western

Europe, total carbon emissions have actually fallen since 1973, despite rising populations and incomes. Outside the industrialized countries, total carbon emissions have continued to grow but at a much reduced pace, thanks to the diffusion of Western standards and fuel-efficient technologies. After 1973, emissions growth fell by 30 percent in Asia and 60 percent in Latin America and Africa.

Global growth in carbon emissions fell from just under five percent annually in the decade before 1973 to less than two percent annually in the last four decades. Although in 2012 the world emitted a record 35.6 billion tons of carbon dioxide, if carbon emissions had continued to rise at their pre-1973 pace, last year they would have totaled 112 billion tons -- more than three times the actual level. Of course, current emissions are still unsustainably high; the world needs a steep decrease to avoid the most serious long-term effects of climate change. But achieving those reductions is at least possible. Without the measures put in place after the oil shock, reaching safe emission levels would have been virtually impossible.

Perhaps it was merely good fortune that the policies adopted after 1973 have helped address a problem that no one anticipated. But even if environmentalists were wrong in the 1970s about imminent oil depletion, they were right that unchecked growth in petroleum consumption could endanger the planet. Looking back to 1973 is a helpful reminder that technical solutions to global environmental problems -- strict standards for fuel-efficient cars and buildings, for example -- can work; that government research support can yield spectacular payoffs; and that political leaders can take decisive, bipartisan action on global environmental problems, especially when doing so affects people's wallets.

Today, the OPEC states are widely seen as environmental villains, getting rich off fossil fuels and fighting international accords to limit carbon emissions. But environmentalists owe the Arab members of OPEC a debt of gratitude. Without the 1973 oil crisis they helped trigger, the world would be a lot worse off today.

Copyright © 2002-2012 by the Council on Foreign Relations, Inc.

All rights reserved. To request permission to distribute or reprint this article, please fill out and submit a [Permissions Request Form](#). If you plan to use this article in a coursepack or academic website, visit [Copyright Clearance Center](#) to clear permission.

Return to Article: <http://www.foreignaffairs.com/articles/140173/michael-l-ross/how-the-1973-oil-embargo-saved-the-planet>

[Home](#) > [Snapshot](#) > [How the 1973 Oil Embargo Saved the Planet](#)

Published on *Foreign Affairs* (<http://www.foreignaffairs.com>)