Raw Materials: U.S. Grows More Vulnerable to Third World Cartels

By putting the rest of the world over a barrel the Arab oil sheikhs have managed in a very brief time to force a fourfold increase in the posted price of oil. Will the success of their concerted action encourage other producers of scarce raw materials to try their hand at the same game?

Pessimists argue that America's growing dependence on imports for a number of key industrial minerals is making the threat of producer cartels more and more likely. Others believe that as far as nonfuel minerals are concerned, there is at present no commodity whose producers have the right combination of economic strength and political hostility to form a cartel against the United States. Whichever view is correct, the nation's position on nonfuel minerals is an intricate amalgam of diplomacy, economics, and technology, whose importance has gone largely unrecognized until the present oil crisis.

The basic facts of the case are, on the one hand, that the United States is more autonomous in nonfuel minerals than any other country except the Soviet Union and would probably be less affected than any other by an embargo. But, although rich in minerals, America began in the 1920's to be a net importer. According to the Department of the Interior, U.S. imports of all nonfuel minerals cost $6 billion in 1971 and are estimated to rise to $20 billion by 1985 and $52 billion by the turn of the century.

For 20 nonfuel minerals, including such key metals as chromium, aluminum, nickel, and zinc, the United States already derives more than half of its supply from abroad (see Table 1), and the extent of this dependence seems certain to increase. Because of the uneven distribution of minerals in the earth's crust, a handful of countries have dominating positions in several metals. Four countries control more than four-fifths of the world's exportable supply of copper. Malaysia, Thailand, and Bolivia together provide 98 percent of U.S. imports of tin.

Even before the oil crisis broke, people were expressing concern about America's vulnerability to group action by producing countries. Collective bargaining by raw materials producers is a "real possibility" in the case of copper, tin, and lead, wrote Lester R. Brown of the Overseas Development Council in an article in 1972. More recently, C. Fred Bergsten, a former assistant to Henry Kissinger on the National Security Council and now with Brookings Institution, has argued that the United States' neglect of the third world is dangerously myopic in view of the nation's growing dependence on the raw materials controlled by third world countries. "A wide range of Third World countries . . . have sizeable potential for strategic market power," Bergsten noted in an article last summer in *Foreign Policy*. Third world leverage might be exercised against all industrialized countries, or discriminatorily against the United States, thus benefiting Europe and Japan. "The spectre of 'cannibalistic competition' among the rich for natural resources is unfortunately a real possibility which suggests that the owners of those resources have tremendous clout," Bergsten presciently opined.

Whether other countries have the same clout as the oil producers is a matter of some debate. Contrary to the opinions of Bergsten and Brown, the National Commission on Materials

Table 1. Percentage of U.S. mineral requirements imported during 1972. [Data derived from Mining and Minerals Policy 1973, a report by the Secretary of the Interior to the Congress]

Mineral	Percentage imported	Major foreign sources
Platinum group metals	100	U.K., U.S.S.R., South Africa, Canada, Japan, Norway
Mica (sheet)	100	India, Brazil, Malagasy
Chromium	100	U.S.S.R., South Africa, Turkey
Strontium	100	Mexico, Spain
Cobalt	98	Zaire, Belgium, Luxembourg, Finland, Canada, Norway
Tantalum	97	Nigeria, Canada, Zaire
Aluminum (ores and metal)	96	Jamaica, Surinam, Canada, Australia
Manganese	95	Brazil, Gabon, South Africa, Zaire
Fluorine	87	Mexico, Spain, Italy, South Africa
Titanium (rutile)	86	Australia
Asbestos	85	Canada, South Africa
Tin	77	Malaysia, Thailand, Bolivia
Bismuth	75	Mexico, Japan, Peru, U.K., Korea
Nickel	74	Canada, Norway
Columbium	67	Brazil, Nigeria, Malagasy, Thailand
Antimony	65	South Africa, Mexico, U.K., Bolivia
Gold	61	Canada, Switzerland, U.S.S.R.
Potassium	60	Canada
Mercury	58	Canada, Mexico
Zinc	52	Canada, Mexico, Peru
Silver	44	Canada, Peru, Mexico, Honduras, Australia
Barium	43	Peru, Ireland, Mexico, Greece
Gypsum	39	Canada, Mexico, Jamaica
Selenium	37	Canada, Japan, Mexico, U.K.
Tellurium	36	Peru, Canada
Vanadium	32	South Africa, Chile, U.S.S.R.
Petroleum (includes liquid natural gas)	29	Central and South America, Canada, Middle East
Iron	28	Canada, Venezuela, Japan, Common Market (EEC)
Lead	26	Canada, Australia, Peru, Mexico
Cadmium	25	Mexico, Australia, Belgium, Luxembourg, Canada, Peru
Copper	18	Canada, Peru, Chile
Titanium (ilmenite)	18	Canada, Australia
Rare earths	14	Australia, Malaysia, India
Pumice	12	Greece, Italy
Salt	7	Canada, Mexico, Bahamas
Cement	5	Canada, Bahamas, Norway
Magnesium (nonmetallic)	8	Greece, Ireland
Natural gas	9	Canada
Rhenium	4	West Germany, France
Stone	2	Canada, Mexico, Italy, Portugal

Policy, a heavyweight group that included as members the secretaries of Commerce and the Interior, concluded in a report last June: "As to the possibility that countries might form effective cartels to deny supplies to major importers or to raise prices, with the exception of petroleum the Commission has not isolated any commodities for which the economic and political basis for such action exists."

What the commission is saying in so many words is that only the Arab oil producers have enough reserves to withhold production; most third world countries need to sell as much as they can produce. Second, the political hues of most potential members of a cartel make such an arrangement unlikely. Southern Rhodesia, South Africa, Turkey, and the Soviet Union have a fairly complete corner on the world supply of exportable chromium, but a coalition of such nations against the United States is not particularly likely.

This is not to say that there have been no attempts at collective bargaining, but none has achieved anything like the success of the oil producers' cartel, the Organization of Petroleum Exporting States (OPEC). The International Tin Council, which includes both producers and the major consumers, has so far had little effect on prices. Chile, Peru, Zambia, and Zaire are the members of the Intergovernmental Council of Copper Exporting Countries (CIPEC), but the United States, which is a major producer as well as a consumer of copper, does not belong. Copper prices have risen recently, but because of production problems in Chile, not through any action by CIPEC.

If producers lack clout now, that does not mean they will always do so. Third world countries expect a rise in their standards of living but, while their per capita gross national product has increased somewhat, so has the gap between rich countries and poor. Growth in both affluence and population cannot but intensify the competition between industrial nations for a finite quantity of natural resources. In 1970 the United States possessed 5 percent of the world's population but consumed 27 percent of its raw materials, a share that will be difficult to maintain in an increasingly competitive world. "As countries become increasingly interdependent, we face the prospect of a single global society in which the glaring inequalities of world income distribution may not be sustainable," notes the generally unradical report of the National Commission on Materials Policy.

But American dependence on imports is not in all cases as heavy as it may appear. The United States imported a third of its requirements of iron ore in 1971, but only because imports were cheaper. There are sufficient iron ore reserves to last at least a century at current rates of consumption. According to the Department of the Interior, the nation will consume 370 million short tons of aluminum between 1971 and 2000. Reserves were only 13 million tons—but on the assumption of 1971 prices. There are "very large" identified resources of aluminum that could be mined if the world price goes higher. According to Vincent E. McKelvey, chief of the U.S. Geological Survey, the country is in fair shape to supply its needs of most key metals out of its own reserves, if necessary, until the end of the century and beyond. Surveys of the country's mineral resources are far from complete, and there is still the chance that important deposits remain to be discovered. For some commodities, such as manganese, tin, and chromite, the United States must look to foreign sources for future supplies, McKelvey concludes. For others, such as vanadium and tungsten, the ores are there and could be profitably mined with suitable advances in technology and rises in world price. Resources of materials such as iron, molybdenum, copper, lead, zinc, and aluminum are "nearly equivalent to potential demand over the next few decades, and the prospects for new discoveries are reasonably good."*

Change in American Lifestyle

Improving domestic supply is one major approach to increasing self-sufficiency. Others are recycling and substitution. With each of these strategies the room for maneuver appears to be if anything shrinking as new constraints emerge, such as environmental protection and the rising cost of energy. Increasing production is of course not the only way to achieve a balance, but there is an evident reluctance in government reports to consider the alternative of reducing demand. This gap has been filled by a committee of the National Materials Advisory Board of the National Academy of Sciences. In a report of 1972 entitled *Elements of a National Materials Policy* the board criticizes the entire existing system for materials decision-making as "so biased in favor of production and consumption that one can hardly overstress the need for temperance and foresight in monitoring and controlling wasteful and nonessential uses." Composed mostly of scientists rather than the economists who provide most of the conventional wisdom on this issue, the academy committee makes some comparatively bold statements about the future of the materials situation. "The American lifestyle, insofar as it depends upon materials, is changing and will continue to change in the near future as the nation pays the deferred social costs of past consumption and inequities in distribution and begins to calculate the costs of depletion, replacement of nonrenewable resources, and environmental restoration and protection." Besides improving domestic supplies and reducing waste, the academy committee recommends that technology should be adapted to depend on widespread and abundant basic commodities such as iron, aluminum, magnesium, and the silicates. Failure to adapt will lead, within decades, to the erosion of the mineral position of the United States, "growing economic colonialism, international frictions, steadily deteriorating balance of trade, and a tarnished global image of the nation."

Until a few weeks ago, this kind of prognostication would probably have been dismissed as wild-eyed. But then the experts in these matters were predicting a year ago that the cost of oil would not reach the $4 to $5 a barrel range until 1985; last month it hit $11.65 a barrel. For the immediate future, however, oil seems to be a special case. With the nonfuel minerals the producers do not have the clout to hold consumers to ransom. Moreover, the U.S. government has a powerful weapon against cartels in the form of a massive, $6 billion stockpile of strategic minerals. In the longer term, however, the nonenergy mineral position of the United States seems certain to weaken. Just how much will depend in large part upon continued technological advances to offset increasing scarcity and other constraints. Yet however well the U.S. looks after itself, the global need is to control per capita consumption of materials while allowing more people to approach the Western standard of living.

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* V. E. McKelvey, in *The Mineral Position of the United States 1975–2000*, E. N. Cameron, Ed. (Univ. of Wisconsin Press, Madison, 1973), p. 81.