
Introduction

The rapid emergence of China as a major industrial power poses a complex challenge for the world's natural resource markets. On the demand side, Chinese appetite for vast amounts of energy and minerals puts tremendous strain on the international supply system. On the supply side, Chinese efforts to procure raw materials can either exacerbate or help solve the problems of high demand. Backed by the Chinese government, Chinese companies have been acquiring equity stakes in natural resource companies, extending loans to mining and petroleum investors, and writing long-term procurement contracts for oil and minerals. These activities have aroused concern that China might be locking up natural resource supplies, gaining preferential access to available output, and expanding control over the world's extractive industries. Do Chinese equity acquisitions, loans, and long-term procurement contracts help consolidate a tightly concentrated supply base by securing preferential access for Chinese buyers, or do they help multiply sources and diversify the supply base, making the provision of output more competitive for all buyers?

Which outcome Chinese procurement arrangements generate depends upon whether those arrangements basically solidify a concentrated global supplier system (and enhance Chinese ownership/control within that concentrated supplier system) or expand, diversify, and make more competitive the global supply system (and use Chinese ownership/control as a lever for such expansion, diversification, and enhanced competition).

Business-school strategic management literature identifies four fundamental natural resource-procurement patterns for a large buyer. First, a buyer can take an equity stake with a major producer, on terms compa-

nable with other co-owners, to create a special relationship with that producer. Second, a buyer can take an equity stake in an independent producer to procure an equity-share of production, again on terms comparable with other co-owners. Third, a buyer can make a loan to a price-making producer in return for a purchase agreement to service the loan. Fourth, a buyer can make a loan to a price-taking producer in return for a purchase agreement to service the loan.

These four procurement patterns allow an operational definition of tying up or gaining preferential access to supplies. If the buyer-seller arrangement simply solidifies a legal claim to a given structure of production (the first and third patterns), tying up or gaining preferential access to supplies has zero-sum implications for other consumers. However, if the buyer-seller arrangement expands and diversifies sources of output more rapidly than growth in world demand (the second and fourth patterns), the zero-sum implications vanish, as other consumers can more easily access a larger and more competitive global resource base.

In this policy analysis I investigate the impact of Chinese resource procurement on the structure of global energy and mineral supply.¹ It must be noted that China's actions also have implications for rogue states, authoritarian leadership, civil wars, corruption, deterioration of governance standards, and the environment. Such effects may make patterns of Chinese resource procurement objectionable, on grounds quite apart from the debate about possible "lock up," "tie up," and "control" of access on the part of China and Chinese companies. I raise these important issues in the concluding chapter on the broader policy implications.

Evidence from the 16 largest Chinese natural resource procurement arrangements (table 2.1 in chapter 2 and descriptions in chapter 3) shows that Chinese efforts, like Japanese deployments of capital and purchase agreements in the late 1970s through the 1980s, predominantly help expand, diversify, and make the global energy-supply system more competitive. However, Chinese attempts to exercise control over mining of rare earth elements (REE)—metals used in a variety of technological applications, from lighter flints to high-temperature superconductivity—may constitute a significant exception (see chapter 4). In August 2009 China's Ministry of Industry and Information Technology set an annual quota for REE exports at 35,000 tons, potentially banned exports of at least five types of REEs, and took steps to control mining and improve environmental practices. These actions may have been to secure control over international markets; at the same time, they are being deployed to compel more foreign investment and more value added in associated industries in inland China. Concerned about access to supplies, mining companies and buyers have shown interest in developing new sites in Vietnam, Kazakhstan, Sweden, and Canada, as well as restarting production in the United States, which has stalled recently due to environmental concerns. China meanwhile has pursued an aggressive policy of acquiring equity stakes in

new REE producers, particularly in Australia. Deng Xiaoping once noted that while the Middle East has oil, China has REEs.²

How should national authorities react to the prospect of Chinese investment in offshore REE companies? The foreign acquisition analytics in the rare earth sector fit well within the broader framework laid out in this policy analysis. Chinese investment in a small, independent producer that can do nothing except help expand supply and make the industry more competitive should be encouraged. But Chinese investment in a major producer, which perhaps puts the Chinese owners and government in a position to control or constrain production, should be viewed with circumspection.

More generally, the United States and other allies are rightly appalled at China's vigorous support for oil production in Sudan and Iran or for oil transportation, natural gas, and mineral production in Myanmar. They are right to be concerned about the consequences of China's natural resource procurement for regional conflict, support for terrorist groups, human rights violations, environmental degradation, and oppression, especially since providing equity capital and loans in return for natural resources is part of China's larger strategy toward Central Asia, the Middle East, Africa, Latin America, and the South Pacific, as it seeks ever more natural resources to fuel its economic growth.

Notes

1. For broader perspectives, see Broadman (2007); Gill, Huang, and Morrison (2007); and Hanson 2008.
2. Keith Bradsher, "China Tightens Grip on Rare Minerals," *New York Times*, September 1, 2009.

