

# ASIA'S RISING ENERGY AND RESOURCE NATIONALISM

## *Implications for the United States, China, and the Asia-Pacific Region*

— TABLE OF CONTENTS —

- 1 Introduction  
*Mikkal E. Herberg*
- 7 Resource Nationalism in the Asia-Pacific: Why Does It Matter?  
*Llewelyn Hughes*
- 15 Energy Nationalism Goes to Sea in Asia  
*Gabe Collins and Andrew S. Erickson*
- 29 Asia's National Oil Companies and the Competitive Landscape  
of the International Oil Industry  
*Mikkal E. Herberg*
- 39 Rare Earth Minerals and Commodity Resource Nationalism  
*Yufan Hao and Weihua Liu*
- 53 Rare Earth Trade Challenges and Sino-Japanese Relations:  
A Rise of Resource Nationalism?  
*Jane Nakano*
- 67 Conclusion  
*Mikkal E. Herberg*
- 73 NBR's Energy Security Program and the Pacific Energy Summit

THE NATIONAL BUREAU *of* ASIAN RESEARCH

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# Introduction: Asia's Rising Energy and Resource Nationalism

*Mikkal E. Herberg*

**MIKKAL E. HERBERG** is a Senior Lecturer in the Graduate School of International Relations and Pacific Studies at the University of California–San Diego, and Research Director on Asian energy security at the National Bureau of Asian Research. He can be reached at <mherberg@nbr.org>.

Over the past decade, Asia has become the center of global energy and commodity markets as demand for these resources has mirrored the region's rapid economic growth. This trend is most pronounced in the case of energy, in which rapid industrialization, massive urbanization, rising per capita incomes, and the expansion of transportation and motorization have all boosted demand for oil, natural gas, coal, and electricity. This boom in energy has been centered in China, but regional demand for other commodities, including rare earth elements (REE), has also risen sharply. At the same time, a relatively limited resource base means that Asia's import dependence on critical energy and industrial inputs is growing rapidly. Given the uneven distribution of these resources globally, an increasingly rising share of Asia's petroleum will need to be imported from the Persian Gulf and Africa, both historically unstable regions of the world.

Not surprisingly, therefore, a powerful sense of insecurity about the reliability of future energy supplies has spread across the region, including fears that shortages or disruptions could undermine continued economic growth and job creation and thus threaten the bedrock of political stability in Asia. Similar anxieties are emerging in markets for other key raw materials. For example, recent declines in Chinese exports of REEs have provoked regional anxieties over potential shortages of supplies essential to manufacturing high-tech clean energy products while heightening national security concerns over the availability of REEs necessary for critical military applications. Consequently, energy security and access to key raw materials have become a matter of the "high politics" of national security rather than merely the "low politics" of domestic energy and economic policy.

Energy and national resource security are now critical strategic and economic agenda items for all the major Asia-Pacific powers. Today's anxieties have been aggravated by a substantial rise in energy and industrial commodity prices that culminated in 2008 and by what many have called a "super-cycle" of long-term secular commodity price increases. In the wake of the Western recession, rising prices and supply insecurity have re-emerged as major economic concerns, as the global recovery—led by Asia and, in particular, China—drives a resumption of the super-cycle. As major regional powers seek to ensure access to key commodity supplies, energy and resource nationalism and a zero-sum atmosphere surrounding the control of future oil, energy, and commodity supplies have become sources of regional rivalry, tensions, and potential conflict. Competition and national suspicion over control of energy and other resources are spilling over and affecting the tenor of the region's most important strategic rivalries—most importantly, the rivalry between the United States and China. Although there have been some efforts to improve regional and multilateral cooperation in order to maintain open markets and access to supplies, for the most part cooperation has been in relatively short supply.

The United States has been the traditional hub and guarantor of stability in Asia and the key energy-exporting regions of the world. Political stability and economic prosperity in Asia are vital to long-term U.S. interests in the region. Therefore, the United States has a major stake in how Asia responds to energy and resource insecurities. Competition over access to and control of energy supplies, transportation routes, and critical materials such as REEs has the potential to stoke political tensions, aggravate existing strategic rivalries, and even provoke outright confrontations. Given that Asia lacks an overall regional security architecture and that the existing institutions for managing conflict are limited, such competition could prove to be deeply destabilizing. Thus,

reducing the potential for conflicts driven by energy competition and resource insecurity has become an important new dimension of the United States' regional strategy.

To address these issues, the National Bureau of Asian Research (NBR) and the Woodrow Wilson International Center for Scholars co-hosted NBR's seventh annual Energy Security Conference in Washington, D.C., on May 4, 2011. Building on NBR's ongoing initiative to bring together policymakers, industry leaders, and other stakeholders concerned with Asia's energy demand, the annual conference convenes senior analysts and policy experts for high-level discussions on the future of Asian energy markets. This year's conference, entitled "Asia's Rising Energy and Resource Nationalism," focused on the implications of Asia's resource security challenges and their impact on U.S. geopolitical and energy security interests. The conference was supported by generous contributions from Chevron; ConocoPhillips; ExxonMobil; the Henry M. Jackson Foundation; and the Japan Oil, Gas and Metals National Corporation.

NBR commissioned five essays for the conference to provide a basis for analysis and discussions. These essays addressed the major concerns arising from government responses to national energy insecurity, including the role that energy and resource insecurity are playing in driving naval competition in Southeast Asia and the Indian Ocean, the impact of Asia's state-sponsored national oil companies (NOC) on the competitive landscape of the global oil industry, and both Chinese and Japanese perspectives on the geopolitical dimensions of the controversy over China's exports of REEs. This report includes all five essays along with a conclusion drawing implications from the conference about the impact of rising energy and resource nationalism in Asia on U.S. energy security and strategic interests.

Llewelyn Hughes from George Washington University provides an informative overview of energy and resource nationalism in Asia to offer a broader perspective on the concerns about energy competition and markets. He suggests that the expanding effort by Asia's rising powers, particularly China and India, to secure future energy resources is adding to an atmosphere of distrust among the key powers in the region. But he also argues that the industry reality is that it is not possible to "lock up" oil supplies, given the global nature of today's market. Moreover, the efforts of these states to do so are not unlike the earlier efforts of Japan and Korea following the global oil shocks in the 1970s or the European powers in the past. In fact, although energy nationalism is rising in Asia, it is declining among the industrialized Western countries affected by previous oil shocks. Moreover, state support for NOCs seeking resources abroad is not especially surprising, because it mirrors support for these countries' major industries and national firms in other industrial sectors. However, Hughes does point to two collateral risks. First, the rising diplomatic influence of large oil-importing states in Asia that are not formal U.S. allies, namely China and India, runs the risk of weakening U.S. influence in key oil-producing regions. Second, resource competition could aggravate regional maritime tensions over control of offshore resources and sea lanes.

Andrew S. Erickson from the U.S. Naval War College and Gabe Collins from China SignPost provide an excellent discussion of the growth in maritime oil and gas transit flows from the Persian Gulf and Africa through the sea lanes of Southeast Asia and the Indian Ocean to China and the rest of Asia. They highlight how energy demand and transit have become important new drivers for naval expansion and rivalry in the region's sea lanes. Energy security has two important impacts on the South China Sea region. The first is that the potential for large oil and gas resources under the sea bed is adding fuel to already serious disagreements over competing sovereignty claims in the South China Sea. The second issue is that as China's dependence on oil

imports rises dramatically, Beijing is increasingly uncomfortable with the U.S. Navy controlling regional sea lanes. Evidence suggests that this discomfort is a key factor in motivating China's naval modernization and growing capabilities, which are in turn driving naval expansion by other regional powers and presenting new challenges for U.S. naval strategy.

The essay I authored for the conference and this report provides an analysis of the rise of Asia's NOCs and assesses their growing impact on the competitive landscape of the global oil industry. Asia's major oil- and gas-importing states have promoted their NOCs in the belief that ownership of oil production enhances their national energy security. At the same time, these NOCs are increasingly investing abroad for straightforward commercial reasons, such as access to larger resource opportunities, and strengthening their competitiveness. Especially in the past three to four years, China's NOCs have become important competitors to the big international oil companies (IOC), who are already facing more limited global opportunities due to competition from the oil-producing NOCs and the large oil service companies that partner with both producer and importer NOCs. Recently, many IOCs have responded by finding ways to partner with the Asian NOCs in large projects, most prominently in Iraq but also in China and India.

Yufan Hao and Weihua Liu from the University of Macau and Jane Nakano from the Center for Strategic and International Studies provide an excellent pair of papers on the growing geopolitical impact of REEs. Hao and Liu present a cogent view from China's perspective that emphasizes the roots of China's recent moves to reduce REE production and limit exports in domestic environmental programs and industry consolidation. Rather than a Chinese effort to assert control over the global REE market and drive up prices, as some fear, they suggest that the moves were necessary to reduce the massive environmental damage caused by unauthorized REE production and create a more rational REE industry structure in China. Nakano then presents the issue from Japan's perspective, focusing on what Tokyo saw as a sudden reduction of Chinese exports, rapidly rising prices, and an apparent effort by Beijing to control the market. Japanese concerns were deepened when China cut off REE exports to Japan during the controversy over the arrest of a Chinese fishing boat captain who had ventured into disputed waters. Japan has responded with a range of policies to source REEs from elsewhere, find substitutes, and recycle existing supplies.

The conference papers, presentations, and discussions presented a broad picture of the major risks emanating from Asia's growing energy and resource insecurity. They collectively suggest that energy and resource insecurity among the key powers in Asia is affecting existing political and strategic rivalries in both predictable and unpredictable ways. Beijing, Tokyo, Seoul, and New Delhi are promoting their NOCs' efforts to secure oil and gas fields abroad and construct regional pipeline routes, which in turn is worsening fears over access to vital future resources. The atmosphere of competition to control supply routes is also increasingly "going to sea," as Asia's, and specifically China's, dependence on maritime tanker supplies accounts for a growing share of oil and gas imports, which is stimulating naval development and potentially a regional arms race. China's NOCs are also becoming key players in the global oil industry and beginning to serve as the catalysts for important competitive shifts. Other potential resource conflicts, in particular over REEs, are increasingly being drawn into the same atmosphere of national and strategic competition. The conference reinforced how important it is for the United States and other Asian governments to begin working to address their common resource challenges in collaborative rather than competitive ways. This will require strong and visionary leadership, most importantly from Washington and Beijing.

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# Resource Nationalism in the Asia-Pacific: Why Does It Matter?

*Llewelyn Hughes*

**LLEWELYN HUGHES** is Assistant Professor of Political Science and International Affairs at the Elliott School of International Affairs at George Washington University. He can be reached at <[lhughes@gwu.edu](mailto:lhughes@gwu.edu)>.

## EXECUTIVE SUMMARY

This essay examines the growing concerns over the rise of resource nationalism in the Asia-Pacific and draws implications for crafting effective policy responses.

## MAIN ARGUMENT

This essay argues that responding effectively to the rise of new powers in energy markets requires carefully identifying the range of risks associated with this change. First, it shows that physical scarcity in the international oil market can be discounted as a risk worthy of policymaker attention. The essay then proposes that important national security externalities remain associated with the rise of new energy consumers. Identifying these and crafting appropriate responses is the most important task facing policymakers and analysts today.

## POLICY IMPLICATIONS

- Governments that are interventionist in oil markets also tend to be highly interventionist across the economy more generally. Given this, it may be more appropriate to understand energy policies pursued by these governments through the lens of industrial policy rather than resource nationalism.
- Energy security can be a factor in militarizing territorial disputes, but the risks of escalation are relative to the potential value of reserves in disputed areas. When reserves are small, governments are less likely to be willing to take risks based on energy demands.
- Growing energy demand from the Asia-Pacific's rising powers implies that producer states have a new set of negotiating partners. This reduces the leverage of the U.S., Japan, South Korea, and others over the governments of producer states.
- Standard-setting initiatives, such as the Extractive Industries Transparency Initiative, could further reduce the potential for negative competition while enabling governments to capture the benefits associated with resource investments.
- Even with the emergence of rising powers in Asia, the U.S. remains a critical regional player that is economically interdependent with several states in the Asia-Pacific. U.S. policymakers should focus on maintaining a regional presence, while keeping up military-to-military contacts with China as a way to avoid strategic miscalculations.

Fears about resource nationalism tend to rise and fall with the price of gas at the pump. In the mid-1980s, policymakers and analysts were sanguine about energy security risks as oil prices fell to \$10–\$20 a barrel in nominal terms. But the perceived risks of relying on a volatile international oil market increased when prices began to trend upward in the 2000s.

Such concerns are not new. In 1928 Ludwell Denny published *We Fight for Oil*, chronicling how rising fears of resource scarcity in the United States led to increased diplomatic competition with the United Kingdom for international access to oil. What is new, though, is the source of the demand growth that is currently contributing to higher prices. In the 1970s, a key driver of price increases was incremental demand growth in the United States, Europe, and Japan. Today, it is the industrializing countries of the Asia-Pacific and Middle East that account for the bulk of marginal demand growth.

China, in particular, matters immensely. China's energy demand per capita is 35% of the average among countries in the OECD (Organisation for Economic Co-operation and Development), according to the International Energy Agency (IEA), and its primary energy demand is calculated to grow by 2.1% annually between 2008–35, even if a more aggressive set of policies is enacted to curb fossil fuel use. In this scenario, Chinese imports of oil are estimated to grow from 4.3 million barrels a day in 2009 to 12.8 million barrels a day in 2035, rising from 53% to 84% of total demand.<sup>1</sup>

Analysts have pointed out that the rising demand is leading to an increase in state-backed competition between national oil companies (NOC). Chinese oil firms have secured equity participation in Africa, Central Asia, Latin America, and Southeast Asia. Japan has reorganized its upstream oil strategy to be a more effective competitor, and has established a national target for equity ownership by Japanese firms. South Korea, the world's fifth-largest oil importer, has elevated the importance of energy security within national policy and is promoting the interests of the Korea National Oil Company (KNOC) and the Korea Gas Corporation (Kogas) internationally.

This essay considers the policy implications of resource nationalism in the Asia-Pacific. It makes two arguments. First, it proposes that designing effective policy responses to the rise of new powers in energy markets requires a careful identification of the range of risks, and that physical scarcity in the international oil market can be discounted as a risk worthy of policymaker attention. Second, this essay proposes that important national security externalities remain associated with the rise of new energy consumers. Identifying these and crafting appropriate responses is the most important task facing policymakers and analysts today.

## Resource Nationalism Is Falling, Not Rising

The biggest concern about resource nationalism is that energy scarcity could lead governments to use military force to ensure access to supplies. History suggests this concern is unfounded. Resource nationalism in the Asia-Pacific in fact replicates the approach taken historically in Europe and Japan to managing risk in oil markets. For decades, these governments sought to increase the share of their domestic markets controlled by national firms and to increase the amount of oil reserves held by these firms internationally. In each case, resource competition did not lead to

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<sup>1</sup> International Energy Agency (IEA), *World Energy Outlook 2010* (Paris: IEA, 2010), 97–98.



worst-case outcomes such as a descent into militarized conflict. China and India, in this sense, are following the path previously taken by the governments of other major oil-importing states.

The predominant trend over the last three decades has also been for these early resource nationalists to reduce, rather than increase, support for NOCs. Indeed, the weakening of links between governments and NOCs is the biggest change in patterns of oil ownership since the oil shocks of the 1970s; over the last three decades, Japan, France, Italy, Spain, and other countries have substantially reduced the importance of resource nationalism in their national energy strategies.

This change means there are fewer governments that see control over oil as a useful strategy for managing risk in the international oil market. It also means that, even as the newly industrializing powers of China and India increase their intervention in oil markets through their NOCs, they are less likely to bump up against other state-sponsored NOCs from oil-importing countries.

## Who Is in Charge?

One important difference between the new industrial powers of the Asia-Pacific and Europe and Japan is that the latter are allies of the United States. This means that their diplomatic interests are closely aligned with the United States, mitigating the risk that resource competition may spiral out of control. While China and India are not adversaries of the United States, they are also not allies. In this case, the broader web of diplomatic relations cannot be expected to act as a brake on resource competition, as it may have done for other countries.

Before fearing resource nationalism, however, we must understand its origins. Here there is no reason to assume that governments are in control or that policymaker goals are purely about increasing energy security.<sup>2</sup> In the case of China, for example, it is just as plausible that firms are more important in shaping energy strategies than governments, given their larger staffs and better technical and local knowledge.<sup>3</sup> In other words, in the energy sector it could well be the case that the tail is wagging the dog rather than the other way around.

Further, governments that intervene in oil markets tend to be more interventionist across the economy in general. It is no surprise that France and Japan, two countries that were highly interventionist in energy markets, maintained similar strategies in manufacturing, agriculture, and other sectors. Similarly, policymakers in both China and India are willing to intervene broadly across their economies in order to promote growth, employment, social stability, and other public policy goals.

Given this, it may be more appropriate to understand the energy policies pursued by these governments through the lens of industrial policy rather than resource nationalism. Indeed, it would be more surprising if these governments did not support the operations of their NOCs internationally, considering the strategies they have adopted in other sectors of the economy. If this is the case, these policies may have implications for commercial competition but are unlikely to have more serious consequences.

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<sup>2</sup> Lewelyn Hughes and Sean J. Kreyling, "Understanding Resource Nationalism in the 21st Century," Institute for the Analysis of Global Security, *Journal of Energy Security*, July 2010, [http://www.ensec.org/index.php?option=com\\_content&view=article&id=253](http://www.ensec.org/index.php?option=com_content&view=article&id=253).

<sup>3</sup> Erica S. Downs, "The Fact and Fiction of Sino-African Energy Relations," *China Security* 3, no. 3 (Summer 2007): 42–68.

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# Energy Nationalism Goes to Sea in Asia

*Gabe Collins and Andrew S. Erickson*

**GABE COLLINS** is Co-founder of *China SignPost*, a research newsletter and web portal that examines China's national development and its strategic implications, including China's use of natural resources, trade policies, and military and security issues. He can be reached at <[gabe@chinasignpost.com](mailto:gabe@chinasignpost.com)>.

**ANDREW S. ERICKSON** is Associate Professor in the Strategic Research Department at the U.S. Naval War College and a founding member of the department's China Maritime Studies Institute (CMSI). He can be reached at <[andrew.erickson@usnwc.edu](mailto:andrew.erickson@usnwc.edu)>.

## EXECUTIVE SUMMARY

This essay argues that concerns about securing offshore energy production and the sea lanes used to import oil and liquefied natural gas are motivating naval modernization in the Asia-Pacific and creating associated security risks for the entire region.

## MAIN ARGUMENT

Maritime disputes in the Asia-Pacific region have historically stemmed from unsettled territorial and maritime claims. In the past decade, however, concerns over maritime energy security have increasingly inflamed these disputes. Rising energy prices, fears of supply scarcity, and rapid increases in oil-import dependency in China and other regional powers such as Indonesia have helped drive resource nationalism among regional governments. Such nationalism incentivizes states to build naval forces capable of deterring rival claimants in potentially resource-rich areas, as well as in some cases threats to major maritime energy transport corridors. As energy security becomes a more important driver of regional arms procurement, it is critically important for states to understand that the high-probability threats to maritime energy security are nonstate threats that are best addressed cooperatively.

## POLICY IMPLICATIONS

- Extreme weather, seismic activity, and nonstate threats such as terrorism are the highest-probability threats to maritime energy security in the Asia-Pacific region. Thus, policies based on cooperation will be the most effective in enhancing regional energy security.
- Greater cooperation can also help change regional perceptions in ways that substantially reduce the chance of armed conflict between states, which is the lowest-probability threat, but the one with the highest potential impact on maritime energy security.
- Regional civil maritime organizations offer a more effective and less-politicized vehicle for engagement than navies do. Major energy producers and consumers can also work to increase “maritime domain awareness” by integrating information on key energy assets and the locations of weather, piracy, and terrorist threats along major sea lanes and production areas. The system could also include a joint pirate threat database to plot locations of attacks and anticipate future trouble spots by analyzing patterns of pirate behavior.
- Asian countries with offshore energy production interests in disputed areas should consider creating joint development zones.

Energy nationalism describes a situation in which governments seek assertively to obtain and protect energy supplies, employing tactics ranging from augmented diplomatic and financial support for acquiring oil and gas reserves to using military posturing and action to secure resource deposits and protect supply lines such as sea lanes.<sup>1</sup> Maritime energy nationalism in East Asia is often inextricably tied to disputes over territorial and maritime claims and is exacerbated by the geographical proximity of states with a history of conflict.

Multiple factors make such nationalism in Asia deserving of analytical and diplomatic attention. To begin with, credible Chinese strategists continue to argue that U.S. influence over key maritime trade routes, backed by security partnerships with many of China's neighbors in East Asia, represents a key threat to the security of China's maritime trade, including energy imports.<sup>2</sup> Even those strategists who support greater maritime security engagement with the United States still advocate the creation of a powerful Chinese navy capable of deterring potential adversaries. China's rising naval power and increasingly assertive policies in the South China Sea unsettle its maritime neighbors<sup>3</sup> and drive regional arms purchases of advanced weaponry, including modern submarines and strike aircraft.

Nonstate threats also interfere with seaborne energy transit and have motivated China's first blue water operational naval deployment, which has been ongoing since December 26, 2008. Somali pirates, in particular, have become progressively more brazen, managing to take over a number of very large crude carriers (VLCC) and other tankers in the past three years. Vessel operators such as Maersk have chosen to route ships around South Africa or hug the Indian coast and then head south rather than face the risks posed by pirates in the Gulf of Aden and western Indian Ocean. In some cases, this adds nearly a week to voyage times and shows that sustained pirate attacks can disrupt major maritime energy transit routes.<sup>4</sup>

In addition, regional oil production cannot keep pace with demand growth. As a result, net imports of crude oil to most East Asian countries and India have risen substantially over the past decade. China, Asia's single-largest oil consumer, has moved from needing to import 1.4 million barrels per day (bpd) in 2000 to importing 4.3 million bpd in 2009 and more than 5 million bpd at present (see **Figure 1**).<sup>5</sup> India's imports likewise grew from roughly 1.4 million bpd in 2000 to 2.2 million bpd in 2009. By contrast, Japan's imports fell from 5.5 million bpd to 4.3 million bpd between 2000 and 2009, while South Korea's oil imports remained flat at roughly 2.1 million bpd, due to higher efficiency and slower growth of oil-intensive activities in both countries.

In the case of Japan, current difficulties in the aftermath of the March 2011 earthquake and tsunami could suppress the country's overall energy demand for the foreseeable future. At the same time, reduced capacity to generate nuclear power and attendant safety concerns could increase reliance on fossil fuels (primarily oil), the effects of which may be felt elsewhere in the region. According to the McIlvaine Company, an energy consultancy, "two-thirds of all new reactor projects

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<sup>1</sup> David R. Mares, "Resource Nationalism and Energy Security in Latin America: Implications for Global Oil Supplies," James A. Baker III Institute for Public Policy, Rice University, Working Paper, January 2010, 3, <http://bakerinstitute.org/publications/EF-pub-MaresResourceNationalismWorkPaper-012010.pdf>.

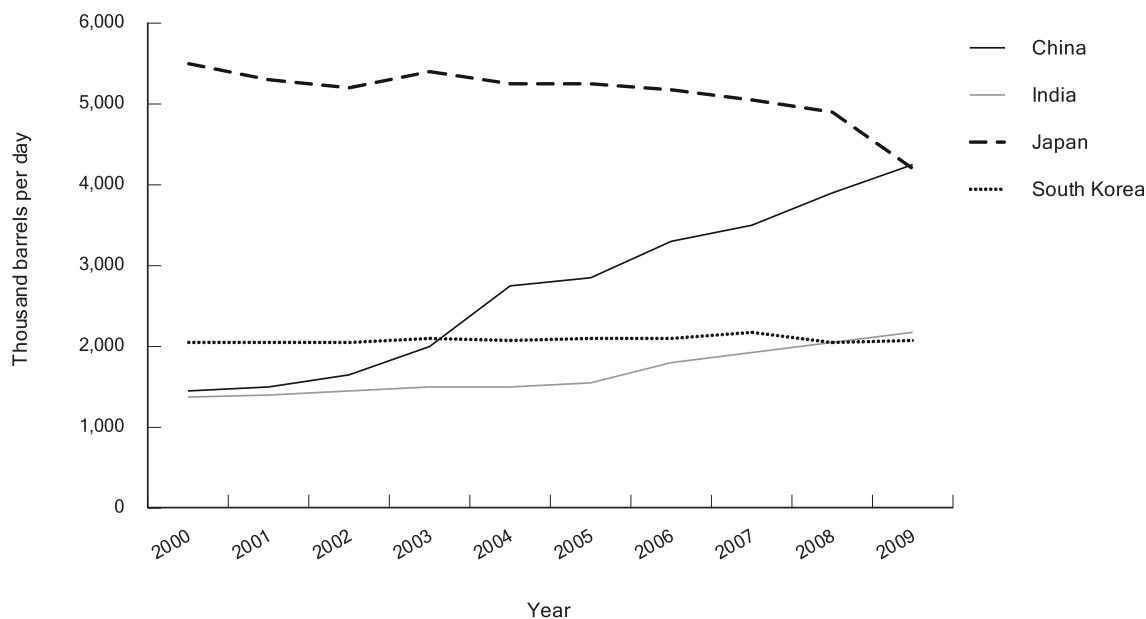
<sup>2</sup> See, for example, Shi Chunlin, "The Impact of United States on the Safety of China's Pacific Shipping Routes and Countermeasures to be Taken," *China Maritime Safety*, no. 2 (2011).

<sup>3</sup> Kamlesh Kumar Agnihotri, "Strategic Direction of the PLA Navy: Capability and Intent Assessment," *Maritime Affairs* 6, no. 1 (Summer 2010): 89.

<sup>4</sup> "Piracy 'No Go' Zone Grows," *InterManager*, February 4, 2011.

<sup>5</sup> Chen Aizhu and Judy Hua, "Update 2—China Jan Crude Imports Up 27pct; Diesel Stocks High," Reuters, February 11, 2011, <http://uk.reuters.com/article/2011/02/14/china-crude-trade-idUKTOE64607F20110214>.

FIGURE 1 Net oil imports of East Asian countries and India



SOURCE: Energy Information Administration, 2011, <http://www.eia.gov/>.

will be delayed after the Fukushima Daiichi disaster...[O]ver five years \$200 billion in energy investment globally will be redirected from nuclear to coal, petroleum or other alternatives.<sup>6</sup> This trend was confirmed by Prime Minister Naoto Kan in a May 2011 interview, when he stated that it would be difficult to construct new nuclear plants in Japan after Fukushima.<sup>7</sup> The likely increase in Japanese reliance on seaborne oil and liquefied natural gas (LNG), as well as the consequent upward pressure on prices, could in turn heighten regional concerns about seaborne energy security.

Growth in oil imports has been a reality for most of Southeast Asia and Oceania as well, and likely will have a profound impact on regional perceptions of energy security, given that governments often perceive energy imports as a strategic vulnerability. Indonesia and Australia experienced the largest changes in import demand between 2000 and 2009. Indonesia, which had to leave the Organization of the Petroleum Exporting Countries (OPEC) in 2008 because it ceased to be an oil exporter, went from having a surplus of nearly 500,000 bpd in 2000 to importing an average of 245,000 bpd in 2009 (see **Figure 2**). During the same timeframe, Australia's oil deficit increased from a deficit of 45,000 bpd in 2000 to a deficit of 362,000 bpd.

Rising oil supply deficits typically mean one thing in Asia: increasing seaborne oil imports. Of all the major consumers in the region, only China has the ability to import oil by pipeline from its neighbors (Russia and Kazakhstan). Yet even China must meet much of its oil demand with seaborne crude supplies because oil output growth in Russia and Kazakhstan has not kept

<sup>6</sup> Andrew E. Kramer, "Nuclear Industry in Russia Sells Safety, Taught by Chernobyl," *New York Times*, March 22, 2011, <http://www.nytimes.com/2011/03/23/business/energy-environment/23chernobyl.html>.

<sup>7</sup> "Crisis Likely Spells End for Nuclear Plant Pursuit, Kan Tells U.K. Paper," *Kyodo News*, May 26, 2011, <http://search.japantimes.co.jp/cgi-bin/nn20110526a3.html>.

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# Asia's National Oil Companies and the Competitive Landscape of the International Oil Industry

*Mikkal E. Herberg*

**MIKKAL E. HERBERG** is a Senior Lecturer in the Graduate School of International Relations and Pacific Studies at the University of California–San Diego and Research Director on Asian energy security at the National Bureau of Asian Research. He can be reached at <mherberg@nbr.org>.

## EXECUTIVE SUMMARY

This essay analyzes the impact of Asia's national oil companies (NOC) on the competitive landscape of the global oil industry and draws implications for the U.S.

### MAIN ARGUMENT

The expansion of Asia's NOCs has been driven by both energy security concerns and the commercial drive to exploit new opportunities. Since 2006, Chinese and other Asian NOCs have become increasingly competitive with international oil companies (IOC) in many of the most important oil- and gas-producing regions. The IOCs still have strong competitive advantages, but they increasingly find themselves squeezed out of major new opportunities by resource nationalism among producing and exporting countries and global competition from NOCs. In Asia, some IOCs are responding by forging new partnerships with China's and India's NOCs, trading access to their international resource opportunities in return for risk capital or access to Chinese and Indian markets.

### POLICY IMPLICATIONS

- The rapid expansion of Asia's NOCs is not the threat to U.S. energy security that some in Washington, particularly in Congress, think it is. Chinese and other Asian NOCs' efforts to acquire equity oil are not "locking up" oil supplies and undermining U.S. energy security. The common challenges and energy security threats that the U.S. and Asia face are restricted access and underinvestment in new supplies.
- Perceptions that Chinese NOCs are agents of Beijing's strategic agenda and a challenge to U.S. interests are also misguided. China's NOCs have a wide range of control over their investments and strategy and largely operate along the same lines as IOCs.
- Heavy state support from Beijing does potentially threaten the ability of U.S.-based oil companies to compete for new opportunities. The U.S. has a strong national interest in the existence of strong IOCs, and U.S. policymakers should press Beijing explicitly and firmly to reduce state support.

Over the past fifteen years, Asia's national oil companies (NOC) have become active and increasingly substantial players in the global oil and gas industry. While China's "big three" NOCs—China Petrochemicals Corporation (Sinopec), China National Petroleum Corporation (CNPC, or PetroChina), and China National Offshore Oil Corporation (CNOOC)—have become the largest investors and competitors, India's Oil and Natural Gas Corporation (ONGC) and others have become significant investors since 2000. Japan and South Korea also have sought to reinvigorate their earlier NOC drive abroad.

The key distinguishing characteristic of Asia's NOCs is that they are based mainly in large oil- and gas-importing countries. This accounts for their focus on acquiring oil- and gas-producing assets abroad and securing long-term supplies through the development of large regional oil and gas pipelines, as well as securing long-term supply contracts backed by large loans. By contrast, the NOCs of countries that are major oil and gas producers and exporters are generally more focused on retaining strong control over their domestic resources ("resource nationalism"), along with expanding globally to access larger resource opportunities and find greater demand security by acquiring downstream assets that guarantee long-term offtake.

Until recently, international oil companies (IOC) exhibited only modest concern about the competitive impact of the rising but still inexperienced Asian NOCs. IOCs were much more focused on the growing competition from the NOCs of producer countries, which were both tightening their control over domestic oil and gas resources and beginning to venture into other resource countries and downstream markets as competitors. IOCs also have been more concerned about the competitive squeeze from the other side of the business, namely large oil service companies such as Schlumberger and Halliburton, who increasingly control the key exploration and development technologies that larger companies generally use. Often the NOCs of oil-producing countries have been able to partner with large oil service companies on major resource developments, thereby excluding IOCs from growing opportunities, even in the case of larger-scale projects.

Nevertheless, new NOCs from the big oil-importing Asian countries have become a growing force globally and, at least in some cases, seem to be contributing to the IOCs' problem of a shrinking opportunity set. This is particularly true in the case of the big three Chinese NOCs, who have grown enormously in just the past few years. This essay will provide a brief qualitative review of this evolution and assess the impact of Asia's NOCs on the competitive landscape of the global oil industry. The key elements of this analysis are a review of what is fundamentally driving the global expansion of Asia's NOCs, an outline of the energy security and domestic drivers, a review of the expansion of key NOCs, an assessment of their competitive strengths and weaknesses, and, finally, suggestions regarding the likely evolution of their relationship with IOCs.

## What Is Driving the Investment Push Abroad?

Two main forces are driving the push abroad by Asia's NOCs. First, energy security concerns are growing across the region as dependence on imported oil and gas accelerates, and this is moving governments to push their NOCs abroad to access new supplies. Both China and India are increasingly import-dependent, while Japan and South Korea have faced complete dependence on imported supplies for their entire modern industrial histories. Growing dependence on imported natural gas and liquefied natural gas (LNG) is also adding to the sense of urgency, as is the fact that rising imports will come mainly from the Persian Gulf, Africa, and other often turbulent



regions. The extreme run-up in oil prices in 2004–8 and, following a brief reprieve during the Western financial crisis, the rerun of prices upward as global demand recovers are also playing heavily into government anxieties. All these developments have created growing apprehension over the vulnerability of Asian economies to supply disruptions, scarcity, rising prices, and economic damage.

As a consequence, energy security has moved to the top of the economic and strategic agenda in Asia and has led to a surge of old-fashioned mercantilism, with governments supporting and encouraging their NOCs to go abroad to secure “national control” of overseas oil and gas resources. Such policies effectively create “national champions” in the oil industry who secure national equity supplies in what is increasingly perceived as a zero-sum approach to energy and politics. Governments have increased their future targets for how much of their oil and gas imports should be supplied by nationally controlled oil firms. Whether this focus on control over supplies in fact provides greater energy security is highly dubious, but at a political level it retains great traction among the big oil importers of Asia. From the IOC perspective, securing an ownership stake (equity) in oil production is clearly a key driver of upstream earnings.<sup>1</sup> But from a national energy security perspective, IOCs understand quite well from decades of experience that their equity oil supplies are no more secure from political or transportation disruptions than are their long-term contract supplies from large producer countries. Hence, to IOCs the fixation of Asian NOCs on equity oil and gas supplies is a bizarre energy security strategy.

The political drive among Asian governments to send their NOCs abroad coincides with an equally powerful push among Asian NOCs to develop new supplies for straightforward commercial and competitive reasons, which IOCs find much more understandable. In China and India, the prospects for new domestic upstream opportunities are increasingly thin and the potential for production growth is very limited. For Japan and South Korea, the only opportunities for upstream growth are abroad. Moreover, in their domestic markets, these companies are subject to pressure from their governments to serve social goals such as job creation. They are also burdened with controlled prices, losses due to subsidized pricing, and other political pressures. Abroad, Asian NOCs are much freer to operate along commercial lines. Consequently, there are major corporate reasons for them to favor investing abroad for upstream growth and profitability.

## The Expansion of Asian NOCs

Four periods of expansion can be discerned among Asian NOCs. During the pre-1995 period, only Japan and South Korea were actively pursuing NOC expansion abroad, driven in Japan’s case by the oil supply shocks of the 1970s and in South Korea’s case by the explosion of oil demand during Korea’s intense industrial development period beginning in the late 1980s. Japan established the Japan National Oil Corporation (JNOC) to support a multitude of smaller Japanese exploration companies and Korea established the Korea National Oil Corporation (KNOC) as its domestic and overseas national champion. Ultimately, neither effort was very successful. By the mid-1990s Japan was only receiving about 15% of its oil via its national companies, and Korea in the mid-2000s was receiving less than 5%. Both countries remained overwhelmingly dependent

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<sup>1</sup> “Upstream” refers to the exploration and production side of the business, whereas “downstream” refers to the transportation, refining, and distribution side. The upstream side accounts for the largest share of earnings for major IOCs and is therefore the main driver of competitiveness and success.

THE NATIONAL BUREAU *of* ASIAN RESEARCH

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# Rare Earth Minerals and Commodity Resource Nationalism

*Yufan Hao and Weihua Liu*

**YUFAN HAO** is Professor of Political Science and Dean of Social Sciences and Humanities at the University of Macau. He can be reached at <yhao@umac.mo>.

**WEIHUA LIU** is a PhD candidate of the Faculty of Social Sciences and Humanities at the University of Macau and a Lecturer at Xi'an International Studies University. Weihua can be reached at <a\_s\_lewis@hotmail.com>.

## **EXECUTIVE SUMMARY**

This essay analyzes the recent changes in China's rare earth elements (REE) policy and their implications for world REE production and consumption, as well as for Sino-U.S. and Sino-Japanese relations.

### **MAIN ARGUMENT**

China's reform of its REE industry and its restrictions on REE exports are domestically driven. These changes are aimed at solving the sustainable development problem within its REE industry—resulting from disordered mining and processing, overexploitation, and environmental deterioration—and are not necessarily meant to take advantage of foreign countries. Western countries' misinterpretation of China's export controls on REE, particularly amid Sino-Japanese tension in fall 2010, reflects a certain degree of mistrust toward China.

### **POLICY IMPLICATIONS**

- If the U.S. recognized Chinese REE policy as a domestically driven action rather than a behavior aimed at subjugating foreign countries—an economic decision rather than a political one—the issue might not be put on the already crowded agenda of the U.S.-China Strategic and Economic Dialogue.
- If both China and the U.S. could cooperate on the exchange of REEs and environmentally friendly technology, or if the U.S. invested more in REE production in China, then a win-win solution might be obtained, and these important strategic resources would be better protected and utilized. Meanwhile, the U.S. would have enough time to develop new, efficient technologies that substitute for or improve the usage and recycling of REEs.

In July 2010, China's Ministry of Commerce announced that it would cut rare earth element (REE) exports by 72% for the second half of 2010.<sup>1</sup> Half a year later on December 28, 2010, and despite international outcry, Beijing announced its 2011 REE export quotas would be 14,446 tons, further cutting its outbound shipment of REEs by more than 11%.<sup>2</sup> This curb heightened global concern over China's monopoly on the production of REEs. The American economic Noble laureate Paul Krugman criticized China's export restrictions on rare earths in the *New York Times*, calling the country "a rogue economic superpower, unwilling to play by the rules."<sup>3</sup> The U.S. Trade Representative's office made it clear that the United States was "very concerned about China's export restraints on rare earth materials," promising that it would discuss the matter with other parties and even consider bringing the issue before the World Trade Organization (WTO).<sup>4</sup>

Rare earth elements are a group of seventeen metallic elements comprising the lanthanides, which have atomic numbers from 57 to 71, plus scandium and yttrium, which have atomic numbers of 21 and 39, respectively, and possess properties similar to lanthanides. The elements with atomic numbers from 57 to 64 are subclassified as light REEs, while the elements with atomic number from 65 to 71 and yttrium are subclassified as heavy REEs. In addition, the elements with atomic numbers from 61 to 67 are sometimes called middle or medium REEs.

REEs are often described as a "treasure trove" of new materials, the "vitamins of modern industry," or "materials of the future," due to their wide applications in the high-tech and defense industries. The 35 strategic elements officially recognized by the United States and the 26 high-tech elements recognized by Japan include all the REEs except promethium.<sup>5</sup> Additionally, the world has witnessed a steady growth in the consumption of rare earth oxides (REO) in recent years, increasing by 8.4% annually from 1997 to 2007.<sup>6</sup>

How could China's restriction of REEs arouse such an astonishing level of concern from so many countries? Why has China decided to restrict its REE exports despite worldwide objections? What might be the potential impact on the REE industry? And what might be the implications of China's decision for regional geopolitics and Sino-U.S. relations?

China has the largest rare earth reserves in the world and has become the largest producer and exporter. In 2009, according to figures from the U.S. Geological Survey, the reserves in China accounted for 46.4% of global reserves and produced 120,000 tons of REOs, about 96.8% of the total world output. Additionally, some REEs can only be found in China. What concerns the West is that the production of such a strategic resource is dominated by China, a country with a different ideology and political system. The dependence on China's REE supply is viewed by some Western observers as dangerous to their economies and national security.

This essay argues that China's reform of the REE industry and restrictions on REE exports are domestically driven, aimed at solving the problems of disordered and wasteful processing, illegal mining, smuggling, and environmental devastation. The controversy surrounding REEs reflects a misinterpretation by the West, which may result from deeply engrained mistrust toward China.

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<sup>1</sup> "China Cuts Rare Earth Export Quota," Bloomberg, July 9, 2010.

<sup>2</sup> Fang Hui, "Zhongguo xitu pei'e daobi guoji gongying duoyuanhua" [Rare Earth Export Quotas Forces Diversification of International Supply], *Zhongguo Jingying Bao*, January 10, 2011.

<sup>3</sup> Paul Krugman, "Rare and Foolish," *New York Times*, October 17, 2010.

<sup>4</sup> "U.S. Voices Concern over China's Rare Earth Cutbacks," *VOA News*, December 29, 2010, <http://www.voanews.com/english/news/asia/US-Voices-Concern-Over-Chinas-Rare-Earth-Cutbacks-112603384.html>.

<sup>5</sup> "Xu Guangxian: Zhongguo xitu zhi fu" [Xu Guangxian: China's Father of Rare Earths], *Bainian Chao*, no. 6, 2010.

<sup>6</sup> Shang Yu: "Xitu shichang fazhan taishi fenxi" [Rare Earths Market Trend Analysis], *Zhongguo Kuangye* 19, no. 10 (October 2010).

This essay will also assess the implications of the REE issue for Sino-U.S. relations as well as for Asian geopolitics.

## Problems and Issues in China's Rare Earth Industry

Up until the late 1980s, the United States was the dominant supplier of REEs. In the early 1970s, China began to pay special attention to REE production as one of its strategic priorities. Deng Xiaoping allegedly stated during a trip to Jiangxi in the early 1990s that “the Middle East has oil, and China has rare earths.”

Because of breakthroughs in rare earth mining technology, the low cost of labor, and lax environmental regulations, China's production increased dramatically at an annual rate of 40% from 1978 to 1989.<sup>7</sup> In 1988, China surpassed the United States as the largest supplier in the world, with outputs of 29,640 tons, 14% higher than the United States' largest annual yield of 25,950 tons in 1984.<sup>8</sup> Since then, China has become not just the country with the largest rare earth reserves but the largest producer, consumer, and exporter. However, this rapid growth in producing REEs has come at a huge environmental cost. The overexploitation and environmental deterioration associated with this resource poses a serious challenge to China's sustainable development.

Although China has produced 96.8% of the world's REEs, it lacks the power to determine the price in the international market. From 1990 to 2008, Chinese exports of REEs increased by nearly nine times, but the average export price decreased by more than 55%.<sup>9</sup> From 1998 to 2005, the average annual gross value for exports was about \$420 million, while the average annual gross volume was 46,946.63 tons, yielding an average price of only \$8.98 per kilogram (kg).<sup>10</sup> More interestingly, in September 2008 the price of cerous oxide with a purity of 99.9% was 14,000–16,000 renminbi per metric ton, or around 16 renminbi per kg, even lower than the price of pork at 18 renminbi per kg.<sup>11</sup> As a result, the profit ratio of REE resource enterprises is generally only 1%–5%.<sup>12</sup> The export price of neodymium oxide is only about \$200,000 per ton, whereas the re-export price of the purified neodymium produced by foreign companies is as high as \$200,000 per kg.<sup>13</sup> As one Chinese scholar put it, “China had been selling these precious rare-earth metals at a dirt-cheap price for 20 years,” stripping the country of one of its most important strategic resources.<sup>14</sup>

Most of China's REE mines are located in the less-developed provinces, such as Inner Mongolia, Shandong, Sichuan, and the southern provinces of Jiangxi and Guangdong. Local governments encouraged enterprises to extract rare earths in order to alleviate poverty. Meanwhile, the central

<sup>7</sup> Cindy Hurst, “China's Rare Earth Elements Industry: What Can the West Learn?” Institute for Analysis of Global Security, March 2010, <http://fmso.leavenworth.army.mil/documents/rareearth.pdf>.

<sup>8</sup> Song Hongfang and Hong Mei, “Review and Forecast of China Rare Earth Industry,” *China Rare Earth Information* 16, no. 2, English edition (February 2010).

<sup>9</sup> Ni Pingpeng, Meng Yunbing, and Yang Bin, “Woguo xitu ziyuan kaicai liyong xianzhuang ji baohuxing kaifa zhanlue” [Exploitation Status of China's Rare Earth Resources and the Protective Development Strategy], *Hongguan Jingji Yanjiu*, no. 10 (2010).

<sup>10</sup> Chen Zhanheng, “Outline on the Development and Policies of China Rare Earth Industry,” Office of the Chinese Society of Rare Earths, April 7, 2010, <http://www.cs-re.org.cn/en/modules.php?name=News&file=article&sid=35>.

<sup>11</sup> Sun Jieliu “Zhongguo xitu chukou jianmai diaocha: Jiage bi zhurou hai di” [Survey of Chinese Rare Earth Export at Low Price: Cheaper than Pork], *Zhenguan Ribao*, December 26, 2010.

<sup>12</sup> “Xu Guangxian.”

<sup>13</sup> Li Fuyong, “Xitu zhi shang: Wuran ziji huanlai chukou diyi” [The Mourning on Rare Earths: Pollution in Exchange for the No. 1 Exporter], *Zhongguo Gongshang Shibao*, December 10, 2010.

<sup>14</sup> “Rare Earths Become Rare,” *People's Daily Online*, September 11, 2009, <http://english.peopledaily.com.cn/90001/90780/91344/6754749.html>.

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# Rare Earth Trade Challenges and Sino-Japanese Relations: A Rise of Resource Nationalism?

*Jane Nakano*

**JANE NAKANO** is a Fellow in the Energy and National Security Program at the Center for Strategic and International Studies. She can be reached at <[jnakano@csis.org](mailto:jnakano@csis.org)>.

## EXECUTIVE SUMMARY

This essay illustrates the role of rare earth minerals in the Japanese economy and the Sino-Japanese trade relationship and examines the implications of the halt of Chinese rare earth exports to Japan in fall 2010.

## MAIN ARGUMENT

China's global dominance in rare earth production has drawn heightened scrutiny in recent years. At the same time that the burgeoning clean energy sector increases global rare earth demand, China continues to tighten its export quotas. As a leading developer and manufacturer of clean energy products, Japan has watched China's economic policy developments closely and strived to reduce its heavy dependence on Chinese rare earths. The halt of Japan-bound exports in fall 2010 was a turning point in the bilateral trade relationship that signified the start of a new phase in clean energy competition and transformed Sino-Japanese economic relations from a mutually prosperous rivalry to one with an undertone of mistrust.

## POLICY IMPLICATIONS

- Rare earths as a commodity currently lack a global marketplace that would enable the proper signaling of supply and demand levels as mediated by price. If such a market were established, prices would likely become more stable. This could also help address China's concern that its supplies are undervalued, facilitating the exploitation of its natural resources.
- Chinese dominance in rare earth production will likely continue in coming years, even if importers accelerate efforts to reduce dependence on China. However, China's tightening of export quotas, accentuated by the halt of Japan-bound exports in fall 2010, was likely the beginning of the end of China's dominance.
- China has legitimate environmental concerns that stem from its production practices. If environmental protection is a key priority, China would benefit from cooperation with high-tech countries such as Japan and the U.S.
- Regardless of Beijing's intent, the halt of exports to Japan undermined China's standing as a reliable trading partner in the eyes of many, casting a cloud over its eminence as a rising stakeholder in international regimes and possibly affecting its economic allure.

This essay considers the challenges in the trade of rare earth minerals (REM) and the impact of these issues on the Sino-Japanese relationship. The first section examines the role of REMs in the Japanese economy and the Sino-Japanese trade relationship, while the second section discusses China's restrictions on rare earth exports. Sections three and four then present the milestones leading up to the halt of Chinese rare earth exports to Japan in fall 2010 and outline Japanese reactions to the export halt. The essay concludes by considering the implications of these developments for the Sino-Japanese economic rivalry. The research and analyses presented here are the author's best attempt—as a third-party observer based in the United States—to characterize what the export halt meant for Japan and its future relationship with China.

## The Importance of Rare Earths to the Japanese Economy

Rare earths are a set of seventeen chemical elements in the periodic table and are key ingredients in many high-tech products. Access to rare earths is essential for Japan to continue to be a leader in developing and manufacturing advanced electronics and clean energy products, but the appeal of rare earths is not limited to Japan. Today, countries such as China, France, Germany, Japan, South Korea, and the United States have placed a high priority on clean energy technology as they seek to exit the global recession and boost domestic employment while steering their economies away from a carbon-intensive industrial model. The burgeoning clean energy sector has made REMs ever more valuable because they are important for such products as hybrid vehicles, electric vehicles, wind turbines, and energy-efficient displays. Accordingly, the global rare earth demand has recently been growing at a rate of about 10% annually, from approximately 40,000 tons per year in the early 2000s to 130,000 tons per year in 2009. Some observers forecast that the blossoming clean energy industry will cause global demand for rare earths to nearly double the current level by 2015.<sup>1</sup>

REMs are not actually rare. They are found in many countries, including Australia, Brazil, Canada, China, India, and the United States. Until the late 1980s, there were several countries producing rare earths, with the United States being a major leader. However, increased scrutiny and enforcement of environmental standards in rare earth production processes drove up costs in the United States. The United States and other Western rare earth producers were further challenged by rising production levels in China—which experienced an annual increase of 40% throughout the 1980s—and its competitive export prices. Eventually this competition drove most mines outside China to shut down so that today China accounts for 97% of the world's production of rare earths, even though it possesses only 50% of the global reserves (see **Figures 1** and **2**).

Rare earths have been a key commodity in Sino-Japanese trade relations for some time. China is the dominant supplier to Japan, while Japan is the primary destination for Chinese rare earth exports (see **Figures 3** and **4**). For example, in 2010, 48% of Chinese rare earths were exported to Japan,<sup>2</sup> which in turn relied on China to meet 82% of its consumption.<sup>3</sup> These figures would likely be even higher if one were to include consumption by Japanese businesses that are set up inside

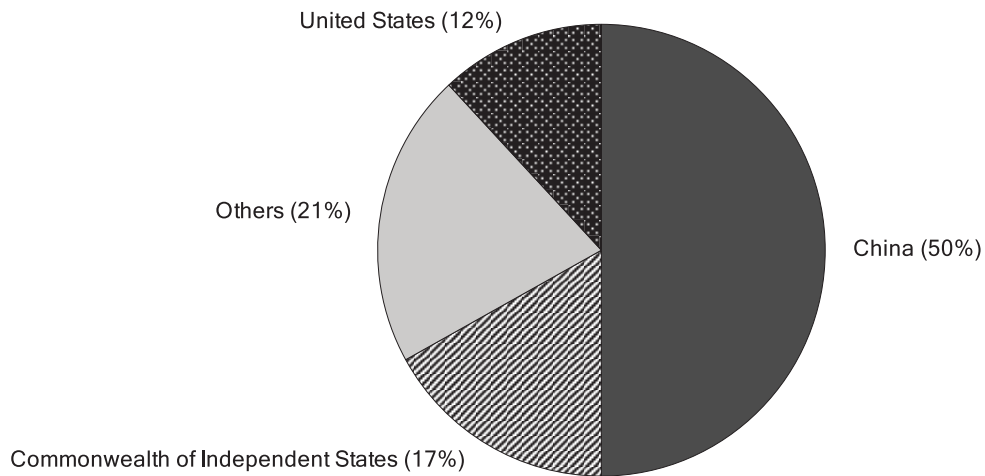
<sup>1</sup> "Global Rare Earth Demand to Rise to 210,000 Metric Tons by 2015," Bloomberg, October 21, 2010.

<sup>2</sup> Ministry of Economy, Trade and Industry of Japan (METI), "The Situation Regarding Rare Earth Elements," Technology and Rare Earth Metals Center, Institute for the Analysis of Global Security, March 22, 2011, 9, [http://www.tremcenter.org/index.php?option=com\\_attachme nts&task=download&id=46](http://www.tremcenter.org/index.php?option=com_attachme nts&task=download&id=46).

<sup>3</sup> Government of Japan, "Trade Statistics of Japan, 2010," 2010.

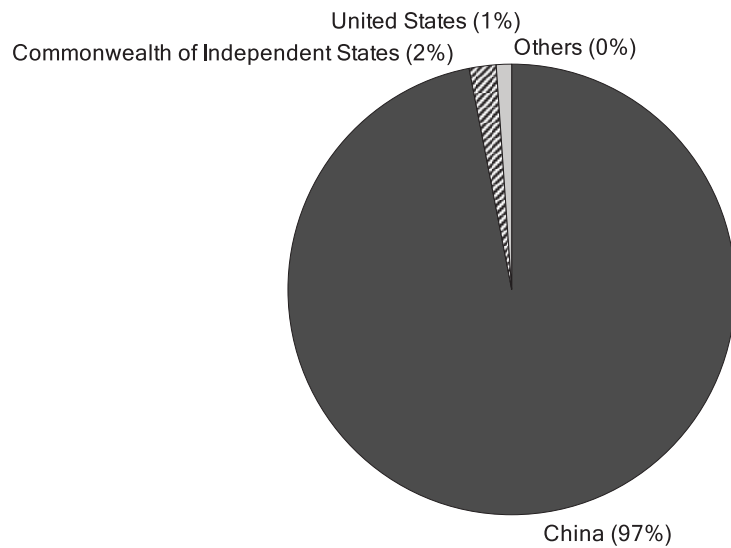


FIGURE 1 Rare earth world reserves



SOURCE: Ministry of Economy, Trade and Industry of Japan, “The Situation Regarding Rare Earth Elements,” Technology and Rare Earth Metals Center, Institute for the Analysis of Global Security, March 22, 2011, 7.

FIGURE 2 Rare earth world production



SOURCE: Ministry of Economy, Trade and Industry of Japan, “The Situation Regarding Rare Earth Elements,” Technology and Rare Earth Metals Center, Institute for the Analysis of Global Security, March 22, 2011, 7.

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# Asia's Rising Energy and Resource Nationalism: Conclusions and Implications for the United States

*Mikkal E. Herberg*

**MIKKAL E. HERBERG** is a Senior Lecturer in the Graduate School of International Relations and Pacific Studies at the University of California–San Diego, and Research Director on Asian energy security at the National Bureau of Asian Research. He can be reached at <mherberg@nbr.org>.

The conference discussion, essays, and comparative analysis of this year's annual Energy Security Conference bring into sharp relief the range of new political and diplomatic challenges rippling outward from energy and resource insecurity in Asia. Put simply, the atmosphere of zero-sum competition between countries over access to and control of resources, what can be called "energy nationalism," is clearly having an increasingly toxic and destabilizing impact on regional geopolitics and on the most important bilateral strategic relationships that will determine Asia's future. Although energy nationalism is declining among large Western economies, the trend in Asia toward a national scramble to control energy resources and transportation routes is adding fuel to existing strategic rivalries in a region that is already in the midst of a profound and uncertain transition: adjusting to the economic and political rise of China. Although, as Llewelyn Hughes points out, it is not possible to lock up supplies in truly global resource markets, the attempt to do so by key powers in Asia is nevertheless adding to tensions.

For the United States, a stable and prosperous Asia is a vital strategic interest as the world's economic and political power gradually shifts eastward. Hence, Asia's increasingly dysfunctional atmosphere caused by energy and resource insecurities creates new challenges for U.S. diplomacy. Growing resource competition among Beijing, Tokyo, Seoul, and New Delhi to promote their own national oil companies (NOC) and gain control over foreign oil and gas supplies perversely undermines each government's confidence in fair access to future supplies and thereby reinforces a spiral of strategic distrust. This fear over denied future access also resonates strongly in Washington. Asia's toxic competitive atmosphere is also encroaching on the maritime realm as the huge rise in supplies moving through the South China Sea and Indian Ocean via oil and gas tankers makes control over the energy sea lines of communication another important driver of a potential naval arms race. State support for Asian NOCs, most importantly Chinese NOCs, is beginning to significantly affect the competitiveness of large, U.S.-based oil companies. These state-led measures are, in effect, industrial policies that are undermining U.S. oil companies' long-term strength. The conference discussion also suggested that the escalation of Sino-Japanese geopolitical tensions over access to China's rare earth exports further demonstrates how resource conflicts can become serious strategic tensions that simply add to strategic suspicion and distrust.

Therefore, the key challenge for the United States is to find ways to reshape Asia's deeply nationalistic and competitive approaches to energy and resource security into more cooperative and collaborative approaches to what are, in reality, shared challenges. Regional cooperation and competitive markets must replace national competition and politicized markets. The major oil consumers and importers in the region have common, fundamental interests in stable global markets, secure and free access to supplies, reasonable prices, and reliable transport routes. The region therefore must work together on building trust, managing the impulse toward statist competition, promoting new supplies, developing new regional infrastructure, and ensuring open sea lanes for energy transport.

Cooperation on these issues will require stronger leadership and a reordering of strategic priorities across the region, especially in Washington and Beijing. One approach would involve creating a new Asian energy forum that would bring together key regional energy importers and strategic powers in a confidence-building process focused on collaborative regional solutions to energy security concerns. Such a forum should include the large importing countries—China,

Japan, South Korea, India, and the United States—as well as Russia, a key regional supplier. A similar grouping was convened in 2007 and led by the United States and China, but it lost momentum with the change in U.S. administration. It is unrealistic to expect that this approach will quickly result in major new investments or transport infrastructure. Nevertheless, the region needs a lengthy period of trust-building on common energy security challenges before more concrete results are likely. Common energy security concerns need to be discussed in a setting that is conducive to reducing distrust and building positive efforts to tackle common problems, most importantly the lack of access to major producer country reserves due to resource nationalism, Russia included. Creating such a forum would also contribute to Asian states building the habit of thinking regionally regarding energy security solutions.

This forum could also discuss the possibility of developing regional emergency oil stocks. Beijing is already building its own national strategic petroleum reserve at great cost, and New Delhi has intentions to do so as well. Southeast Asia, taken as a single region, is also now a major net oil importer and needs to build strategic stocks. It is far more economical for the region to build and maintain oil stocks together than have each country build its own expensive above-ground storage facilities. This forum could also address the collaborative release of stocks during oil supply disruptions. The recent sharp disruption in Libyan oil supplies and a nearly 10% run-up in global oil prices would have provided a perfect opportunity to discuss the value of regional, cooperatively managed emergency stocks had such a forum for discussion existed.

Two other issues raised in the conference could potentially be addressed in such a regional forum. First, freedom of navigation and open sea lanes are a common regional goal. Yet discussion at the conference suggested that energy transport insecurity is increasingly becoming another driver for naval competition and strategic suspicion. Therefore, a regional agreement to maintain free flows of energy and depoliticize its transit—in effect, ring-fencing energy transit—could have important benefits and support confidence-building. Second, overseas expansion of Asia's NOCs in a vain effort to lock up future oil supplies is creating state-sponsored competition that undermines not only each country's sense of energy security but also the competitiveness of U.S.-based international oil companies. Such state support is really an industrial policy of creating "national champions" masquerading as energy security policy. A regional forum could thus be an effective means to negotiate an agreement to reduce state promotion of NOC investments or at least to create guidelines for managing this competition, as has been done for competitive export-financing subsidies through multilateral negotiations.

Multilaterally, the region, led by Washington and Tokyo, should seek to bring China and India more directly into global energy institutions such as the International Energy Agency (IEA). The IEA was established in the 1970s as a mechanism for managing supply disruptions. However, it does not include China or India, two of the world's six largest oil-consuming countries today. Involvement in the IEA would provide these states with expertise on energy efficiency, demand management, technology, and policymaking that could accelerate the learning curve of their energy policymakers. Inclusion would also help forge a stronger sense of the common energy security challenges facing Northeast Asian states.

Bilaterally, energy dialogues and greater cooperation on many issues, including demand growth, efficiency, energy-saving technology, and reducing pollution, are already underway