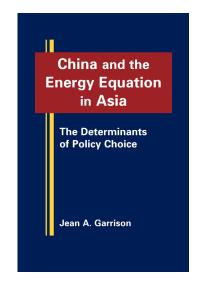
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China and the Energy Equation in Asia: The Determinants of Policy Choice

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1

China's Search for Energy Security

From a historical, geopolitical perspective, securing access to energy resources has meant militarization and belligerent policies among the great powers as they compete for control of resource-rich, strategic real estate. For example, imperial Japan expanded to the Asian continent to secure Manchuria's coal and Northeast China's oil resources to fuel its war machine. Similarly, the West's economic development model was based on colonial domination with the European powers competing to acquire and control colonial resources.

Many scholars and policymakers argue that securing scarce energy resources is the single most important challenge facing a country's national security today. The insecurities of the United States, China, Europe, Japan, and most of the developing world, which rely on energy imports, make them all vulnerable to supply disruptions in a time of increasing uncertainty in the global energy supply. Increasing insecurity of supply today accompanied by growing demand potentially leads to a dangerous security dilemma. Growing scarcity in the face of rising oil prices creates conditions for competition among states and fears of future "resource wars." Such traditional geopolitical analyses view energy security through the lens of a classic zero-sum competition that predicts that conflict over scarce resources is inevitable. This context places China's growing search for energy into a win-lose scenario that pits it against the United States and all other contenders. With this scenario, China is caught up in a broad strategy to buy up scarce energy reserves around the world and thus take "our" oil.³

In contrast, the neoliberal perspective emphasizes that the energy futures of China and the United States, as well as Asia and the globe as a whole, are intimately linked. States that share common challenges—such as vulnerability to fluctuating production levels and rapid price shocks—may also share common interests that foster cooperative relations. Given economic interdependence, China and others certainly share economic consequences if there is a disruption in energy supplies. They also are affected by the same transboundary environmental consequences that emerge from reliance on fossil fuels. In the latter case, the common threat may set the stage for shared challenges in the

need to diversify the energy mix, to shift to alternate energy supplies, and to improve energy efficiencies.

Thus, the dilemma for any work focusing on China's quest for energy security is to explain China's behavior and motivations. The central premise for this book is that the way the energy security debate is defined by Chinese leaders (and other important actors)—in geopolitical, developmental, and environmental terms—and the nature of the domestic political context fundamentally shape what policy choices are made, as well as the prospects for cooperation, competition, and/or conflict over energy in Asia.

The purpose of this study is threefold: 1) to identify the broad policy frames and interests that define China's approach to energy security; 2) to explore the foreign policy and domestic contexts of its energy security policy; and 3) to explain what drives China's quest for energy on the supply-and-demand side at home and abroad. Putting the China energy security debate into its international context is a useful first step to an understanding of how and why China approaches the energy security dilemma as it does.

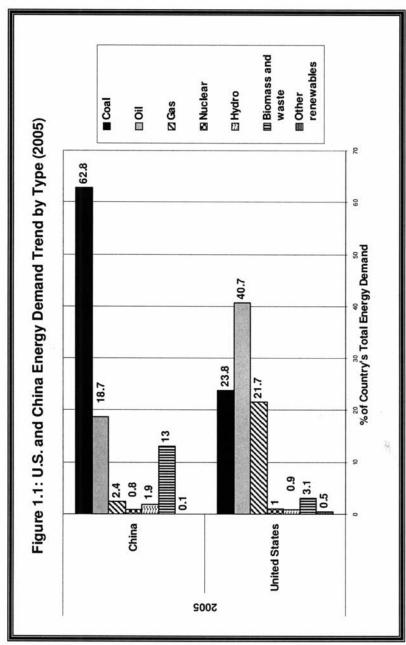
The Global Energy Context

Complicating the global energy equation is the reality that the world is running out of cheap, easily accessible oil at a fast pace. In terms of resource scarcity, Kenneth Deffeyes argues in Beyond Oil: The View from Hubbert's Peak that oil production passed its peak in late 2005 and that, despite new discoveries, global production is on the decline.⁴ Royal Dutch Shell CEO Jeroen van der Veer noted in January 2008 that "[a]fter 2015, easily accessible supplies of oil and gas probably will no longer keep up with demand." Without action now, he foresees a possible future in which states "scramble" for resources in a zero-sum game with clear winners and losers.⁵ According to David Howell and Cheryl Nakhle, oil is plentiful, but its cost, the risks of extraction and production, and its unreliability have increased over time, making its use problematic.⁶ The central point is that the growing demand for fossil fuels will exceed the readily available supply in the near future, and yet the world is forecast to still rely on fossil fuels for 85 percent of its primary energy needs through 2050.

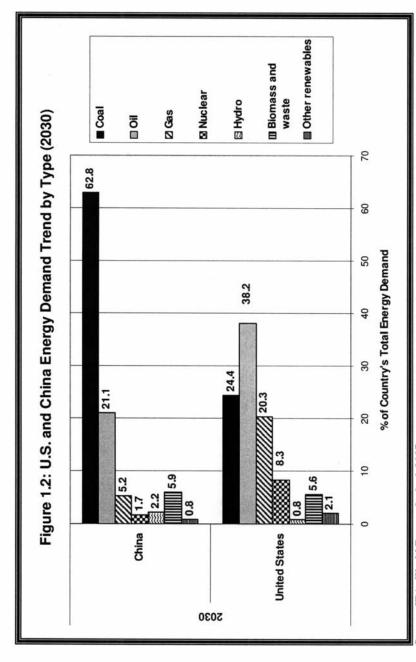
Two specific challenges, in particular, complicate a future that relies on fossil fuels. First, as noted, few new "easy" resources are left to exploit. Second, new investment is needed desperately to unlock resources in areas with geopolitical challenges, in remote areas, in deep offshore locations, and/or in nonconventional hydrocarbon resources such as heavy oil or oil sands. This will be costly, and developing countries are most in need of investment. According to the International Energy Agency (IEA), a \$20 trillion investment in energy infrastructure (\$10 trillion in the power sector alone) is needed to meet the growing demand, but only half of that amount has been committed. Similarly, spending on clean energy including research, development, and deployment is well below other sectors. The looming demand growth in the rest of the developing world and the climate change crisis add a new impetus to look beyond oil. The IEA projects that based on 2007 energy use trends, global demand will increase by 50 percent by 2030, with 70 percent of that increase coming from energy demand in the developing world (30 percent from China alone). In turn, this increase will lead to a 55 percent increase in CO₂ emissions.⁸

China's growing energy demand fuels many people's concerns over future energy security. China is now the second-largest energy consumer in the world and also the second-largest oil importer by volume after the United States. China accounts for 41 percent of the world's growth in demand for oil—a trend that the U.S. Energy Information Administration (EIA) and others believe will continue into the near future. Although China and the United States both rely on fossil fuels and are projected to do so in the future, their specific energy mix is different. Figures 1.1 and 1.2 below compare the China and U.S. energy mix trends in 2005 and 2030. Based on IEA data, both will continue to rely substantially on fossil fuels through 2030.

By most estimates, through 2030 China's overall energy use mix will remain dominated by coal. Its oil use will increase to accommodate its growth in the transport sector and need for oil in industry. Although oil will represent only 20.1 percent of its primary energy mix, a majority of this will be imported as domestic sources dry up. 9 As we will see later in this book, although China works to diversify its energy mix, the sheer volume of its demand and the domestic challenges it faces make the transition difficult. For example, China works to expand the use of natural gas in its energy mix to become less dependent on oil imports, but it must overcome barriers to using natural gas that include infrastructure and delivery of natural gas imports, which include the need to build natural gas pipelines and additional liquid natural gas (LNG) receiving terminals along the coast. 10 Despite increasing use of nuclear power, hydropower, and renewable energy, these still will remain a small percentage of China's energy mix by 2030. Coal remains China's immediate energy future.



Source: IEA, World Energy Outlook 2007



Source: IEA, World Energy Outlook 2007

Putting the Global and Chinese Energy Security Debates in Context

The Case for Insecurity and Zero-Sum Analyses

Broadly speaking, there is concern that without a change in how energy is used globally a looming oil crisis will lead to major economic disruptions and the greater possibility of conflict over scarce resources. Noted security analyst Michael Klare argues that the most likely cause of future wars is the demand for scarce resources by rapidly growing populations. He argues that finite resources, escalating demand, and the location of resources in areas known for their political instability combine as preconditions for conflict. 12

This language of "resource wars" describes an overdependence on unstable foreign sources of vital or strategic resources and a threat of interruption of access to their supply. \(^{13}\) Much like the strategic minerals debate of the 1980s that emphasized problems of supply maintenance for vital resources, geopolitical vulnerability in these terms depends on the decline in domestic production for a critical resource needed for the economy or security systems that leads to growing import dependence. The concentration of the resource to one or a few limited suppliers—particularly in politically unstable areas or in unfriendly countries—exacerbates the problem and sense of insecurity. \(^{14}\)

From a global threat perspective, the increased concentration of oil supplies in a few areas, primarily in the Middle East, North Africa, and Central Asia, gives some producing states a potential resource weapon over consumers. The fear is that with this kind of concentration, producers may follow an energy nationalist track and try to control world trade by restricting production or output, by increasing prices, or by routing supplies to friends while punishing adversaries. Frequent instability in the Middle East, which is estimated to hold 77 percent of the world's proven oil reserves (dominated by three states—Saudi Arabia, Iran, and Iraq—that hold 56 percent of the total), is a cause of concern. In 2005 Arab countries were China's largest crude oil suppliers, with China importing nearly 44 percent of its total oil imports from the region.

A second concern focuses on the sea-lanes of communication (SLOCs) or potential chokepoints such as the Strait of Hormuz leaving the Persian Gulf or the Strait of Malacca that separates the Indian Ocean and South China Sea (through which some 80 percent of China's oil imports pass). These narrow corridors represent areas of concentrated shipping that are vulnerable to transport interruptions.¹⁷ China watches

the U.S. presence in the South China Sea with this concern in mind. 18 Some Chinese strategic thinkers see the American naval presence there as a threat to Chinese energy imports if the two nations come to blows.

The primary concern is that energy producers will use their resources as a weapon and undermine the world energy market. In this way, Russia's dominance over the oil, natural gas, and electricity sectors and the legacy of integrated supply and distribution infrastructures from the Soviet era allow it to use energy as a political weapon against countries such as the Ukraine and Belarus. This behavior makes Europe nervous about Russia's reliability as a steady supplier of natural gas. 19

However, as the strategic minerals debate illustrates, an energy producer's success (or that of anyone with a strategic asset) is related to a number of economic and political factors—for example, its proportion of world exports; the output and reserves it holds; supply and demand elasticities; the political, economic, and ideological outlook of exporters: and the level of cohesion among other producers. In addition, the mineral's importance, possibilities for substitution, consumption patterns must be taken into account. These factors give single countries and cartels such as OPEC only a limited ability to sustain low output and high prices over time.²⁰ For Russia, the world economic crisis in fall 2008 that undermined its stock exchange raised serious questions about Russia's ability to invest in its oil sector adequately without outside assistance.

Given the vulnerabilities of supply and distribution channels and the level of dependence on foreign oil in countries such as China and the United States, securing their access to energy becomes a major foreign policy priority. China's accelerating dependence can multiply its apprehensions about whether the supply is adequate and secure, which increases its desire to ensure a reliable and reasonably priced flow of oil.²¹ In this vein, Oystein Noreng argues that China's mercantilist policies are changing the international oil and gas game.²² His greatest concern stems from the increase in China's direct (owned) or indirect control of resources in countries of concern to the United States. Most traumatic from a U.S. foreign policy perspective has been China's close trade relationships with Iran, Iraq before the 2003 invasion, and Sudan.²³ The fear is that as China deals with such pariah states it circumvents global energy markets.

Hawks within the Department of Defense (DOD) who adopt the more hard-line realist viewpoint that China is the next most likely great power competitor challenging U.S. economic, military, and political interests in East Asia would see energy in these terms. The most recent Quadrennial Defense Review (QDR), published in February 2006, also expresses concern about China's expanding military development. It identifies China as the most likely competitor for the United States, noting specifically that China fields "disruptive military technologies" that might "offset traditional U.S. military advantages." According to analysts such as Erica Downs, many Chinese leaders interpret the signs of U.S. discomfort with China's rise—through DOD reports, for example, and situations such as congressional opposition to a Chinese company buying U.S.-based Union Oil Company of California (Unocal)—as evidence that the U.S. is a primary threat to China's energy security. China's accelerating dependence multiplies its apprehensions and increases its desire to ensure reliable flows of reasonably priced oil. By this definition, China's policy is a defensive response to minimize its vulnerability.²⁵

The Case for Collaboration and International Coordination

The "anarchy" of the realist vision, however, does not refer to a lack of structure, just a lack of certainty. Many see how China increasingly fits itself into established patterns of energy trade and investment as evidence of a different behavior trend. For example, within the U.S. State Department and Department of Energy, those who work on energy policy acknowledge that while states are in competition with China for resources, they also share common interests because oil is a commodity that is traded on the open market, "and energy security is not defined by who owns the asset." They argue that oil is supplied where the price environment is most profitable. Rather than emphasizing areas of potential conflict, they note the areas of cooperation in "energy efficiency, clean coal, nuclear, biofuels, ... areas that we feel would be of benefit for the U.S. and China to expand our cooperation, which will help them diversify their energy mix, help them actually achieve a greater degree of energy security." Ultimately, this broad approach will provide a variety of sources of energy that address issues of reliability and affordability critical to economic stability and energy security. 26 Jeroen van der Veer concludes that with greater planning, coalitions of states can use cross-border cooperation "to take on the challenges of economic development, energy security, and environmental pollution."²⁷

Chinese officials state that China's foreign policy rests on a concept of "peaceful rise/development," in contrast to previous great powers that competed and played great power games leading to war. They argue that its development transcends the old industrialization model that made countries rivals for resources in bloody wars that allowed high consumption of energy and high pollution.²⁸ In addition, they say that China's development has led to mutual benefits for its neighbors and built a win-win international system for all rather than realism's zerosum world.²⁹ As such, Chinese leaders argue that the power transition spurred by China's ascent in East Asia will not be destabilizing or lead to a destructive great power war.³⁰

In this way, China promotes itself as a responsible power promising peace, development, security, and cooperation and vowing to perform its responsibilities as a major country. This would include abiding by its principles but more overtly increasing its aid and setting an example on the international stage.³¹ President Hu Jintao describes the linked concepts of "harmonious world" and "harmonious society" as the comprehensive guiding principles for China's domestic and external strategies. He places China in the center of efforts to transform the international system to establish a more open and fair multilateral trading system and to improve the international financial regime to support trade relations and an international environment conducive to economic growth.³²

In the short- and mid-term, China's leaders pay special attention to improving relations with the United States as well as its immediate neighbors. This twin focus is needed to nurture favorable external conditions for its domestic modernization needs. China's leaders foster cooperative relations to keep stability despite perennial differences with the United States on, for example, trade deficits, human rights, and the Tibetan issue.³³ Robert Sutter characterizes China's policy as an attempt to help restrain U.S. hegemonism, to facilitate the move toward a multipolar world, and to foster stability for its continued peaceful development. Tensions with the U.S. must be managed if this is to occur. He argues that the Chinese see the increase in common challenges such as international terrorism, crime, and disease as a basis to build common interests and enlarge the foundation for cooperation in the world.³⁴

From this perspective, states operate in a web of interdependence where rules and norms of behavior constrain their actions and shared interests are identified. Thus, broader conflict is not inevitable if a rising China can be peacefully integrated into the international system.³⁵ From a complex interdependence view of international relations, one expects China to support the current interdependent economic structure and seek to avoid alienating economic partners because it is this system that spurs its economic development. Thus, China would work to avoid confrontation because its advantages are small in a world where modern economic power depends on technological innovation at least as much as acquiring resources.³⁶

Robert Keohane and Joseph Nye's analysis of asymmetric interdependence may be used to explain how states can exploit their advantages in terms of the distribution of specific resources. In the energy sector, those who import will be more sensitive to possible supply disruptions. However, there exist asymmetries of vulnerability and different levels of dependency a state feels toward another. The ability of a state to adjust and insulate itself from the actions of another—in this case the actions that affect international energy supplies—will be mitigated by other factors such as trade position and technological advantage.³⁷ Thus, economically powerful consumer states such as Japan can use that strength to grow steadily despite severe dependencies on energy imports.

The globalized nature of the Asian market creates opportunities for China to use its diplomacy and trade advantages to leverage its partners and rivals. Avery Goldstein argues that China's strategy has been to become indispensable to its neighbors by establishing various partnerships and to establish itself as a responsible international actor to undercut others' suspicions. China's rapid economic growth helps expand the development of the region as a whole. Because China needs to maintain its internal growth through international trade, it would be careful not to risk those ties. Theoretically, the deepening economic relationships among Asian states work to mitigate potential conflict, even in a resource-scarce environment.³⁸ In this vein, Banning Garrett has coined the concept of "strategic interdependence" in which countries such as the U.S. and China face a strategic imperative to cooperate. Each has a critical mutual stake in the other's energy security and the choice to decide how common problems are resolved—in this case developing a strategy to ensure secure energy supplies.³⁹ Joshua Kurlantzick takes this argument a step further by noting that China's diplomatic and economic tools of "soft power" promote a benign view of China that allows that country to push its hard goals, which include access to resources, and more generally, to get its way in foreign relations.⁴⁰

The foreign direct investment (FDI) numbers alone illustrate the fast-paced growth in China and much of Asia (Table 1.1 below details inward FDI flows into Asia). Despite China's best efforts and the efforts of its skeptics, however, perspectives on China's intentions remain mixed. Recent polling data demonstrate that this mixed view of China's intentions breaks down along interpretations of its military and economic intentions and capabilities, has varied over time, and varies by region.

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Cong, China 710 6,213 61,924 23,777 9,682 13,624 2 I, China - 2 - 1 160 375 411 I, China - 2,066 2,744 3,452 3,452 411 I, Februalic 79 2,151 3,585 5,472 5,627 4,328 Republic of 1, 73 1,247 9,002 4,130 3,395 4,384 1,384 Republic of 1, 78 1,247 9,002 4,130 1,749 6,324 1,384 1,384 1,445 6,324 1,384 1,384 1,445 1,384 1,445 1,425 1,384 1,445 1,425 1,384 1,445 1,425 1,384 1,445 1,425	6,213 61,924 23,777 9,682 13,624 34,032 33,618 2 1 160 375 411 484 1,322 2,066 2,714 2,749 3,585 5,472 6,678 5,627 2,151 3,585 5,472 5,627 4,323 5,774 6,676 1,247 8,325 6,241 9,239 6,324 7,816 2,775 1,247 8,022 4,324 7,816 2,775 6,676 1,247 9,002 4,130 3,385 4,384 8,880 7,050 3,659 3,863 - 4,109 1,445 2,426 2,872 1,626 1,559 4,928 4,109 1,445 4,38 1,626 1,626 1,559 4,928 4,109 1,445 4,53 1,88 1,626 1,659 4,928 4,109 1,445 4,22 2,24 4,107 1,61 2,466 1,645	China	22	37,521	40,715	46,878	52,743	53,505	60,630	72,406	69,468
China - 2 - 1 160 375 411 In Federation - 2,066 2,744 2,748 3,461 7,958 1 In Federation 79 2,161 3,585 5,472 5,627 4,323 1 Republic of 1 17 1,247 9,002 4,130 3,461 4,384 1,384 1,323 4,384 1,384 1,384 1,384 1,384 1,384 1,384 1,384 1,395 4,384 1,384 1,395 4,384 1,384 1,384 1,495 8,226 1,384 1,445 2,426 1,384 1,445 4,384 1,395 4,384 1,395 4,384 1,395 4,384 1,323 1,426 1,322 1,32	2 - 1 160 375 411 484 1,322 2,066 2,714 2,748 3,461 7,986 15,444 12,766 2 2,151 3,585 5,472 5,233 5,175 -2,766 42 8,323 6,241 9,239 6,334 7,816 2,775 1,247 9,002 4,130 3,395 4,384 7,816 2,775 1,247 9,002 4,130 3,395 4,384 7,816 2,775 1,559 4,928 4,109 1,445 452 2,867 -35,160	Hong Kong, China	710	6,213	61,924	23,777	9,682	13,624	34,032	33,618	42,892
In Federation - 2,066 2,714 2,748 3,461 7,958 1 Republic of indexed control of ind	2,066 2,744 2,748 3,461 7,958 15,444 12,766 2 2,151 3,585 5,472 5,627 4,323 5,771 6,676 - 4,27 6,241 5,627 4,323 5,771 6,676 - 1,247 9,022 4,139 3,929 4,384 8,980 7,050 1,1,270 14,019 8,314 17,019 8,020 36,007 - 35,160 2,775 1,559 4,928 4,109 1,749 2,426 2,827 1,666 7,050 1,559 4,928 4,109 1,445 4,28 1,666 7,050 7,050 2,81,0 2,340 2,486 35,242 41,071 1,86 1,625 1,666 1,627 1,666 1,627 1,666 1,627 1,666 1,627 1,666 1,627 1,666 1,627 1,666 1,667 1,666 1,627 1,666 1,627 1,666 1,677 1,666 1,677<	Macao, China	•	2	- 1	160	375	411	484	1,322	739
Republic of region of the problematic of the pr	2,151 3,585 5,472 5,627 4,323 5,771 6,676	Russian Federation	-	2,066	2,714	2,748	3,461	7,958	15,444	12,766	28.732
Republic of the public of the publi	42 8,323 6,241 9,239 6,324 7,816 2,775 1,247 9,002 4,100 3,385 4,384 8,980 7,060 3,659 3,863 - 110 1,749 2,486 2,827 1,686 1,559 4,928 - 4,109 1,445 453 1,880 1,625 1,559 4,928 4,109 1,445 458 2,827 1,686 1,559 4,928 4,109 1,445 458 2,827 1,686 1,559 4,928 4,109 1,445 458 2,827 1,686 1,659 1,649 1,645 453 1,889 1,625 2,814 2,346 35,242 41,071 8 4,346 4,346 1,61 33,75 33,73 381 4,346 4,346 1,61 1,62 83 1,82 4,346 4,55 2,978 1,84 131 381 4,346 4,56 </td <td>India</td> <td>79</td> <td>2,151</td> <td>3,585</td> <td>5,472</td> <td>5,627</td> <td>4,323</td> <td>5,771</td> <td>9/9/9</td> <td>16,881</td>	India	79	2,151	3,585	5,472	5,627	4,323	5,771	9/9/9	16,881
17 1,247 9,002 4,130 3,395 4,384 1,866 11,970 14,019 8,314 17,019 8,020 5 1,78 3,659 3,928 4,109 1,445 453 4,226 1,78 1,559 4,928 4,109 1,445 452 452 1,00 1,656 2,928 4,109 1,445 452 452 1,00 2,146 2,540 20,645 18,023 2,448 3 1,156 1,151 149 149 145 84 84 1,157 2,146 2,246 2,978 1,45 2,57 1,97 1,12 1,149 1,45 2,54 3,27 1,97 1,64 1,56 1,14 1,45 2,24 3,24 3,24 3,24 3,17 3,17 3,17 3,17 3,17 3,17 3,17 3,17 3,17 3,17 3,17 3,17 3,17 3,17 3,17<	1,247 9,002 4,130 3,395 4,384 8,980 7,050 3,650 1,4019 8,314 17,019 8,020 36,007 -35,160 2 3,659 4,928 4,109 1,445 452 2,426 2,827 -1,666 1,559 4,928 4,109 1,445 453 1,888 1,656 28,145 2,3540 20,645 1,8023 24,486 35,242 41,071 8 28,145 2,3540 20,645 1,8023 24,486 35,242 41,071 8 28,145 2,3540 2,0645 1,8023 24,486 35,242 41,071 8 1,51 1,49 1,45 84 131 381 381 381 4,346 2,456 1,502 2,4486 35,242 41,071 88 1,51 1,45 1,45 84 131 381 381 4,346 2,45 1,45 1,45 1,45	Japan	278	42	8,323	6,241	9,239	6,324	7,816	2,775	- 6,506
1,866 11,970 14,019 8,314 17,019 8,020 3 178 3,659 3,863 - 110 1,749 2,426 3 166 1,559 4,928 - 110 1,749 2,426 1 - 10 4,928 4,109 1,445 453 132 1 - 2,756 28,145 23,540 20,645 1,035 24,486 3 n - 20 583 549 526 1,035 3,375 84 n - 20 583 549 526 1,035 3,375 84 9 n - 20 583 549 526 1,035 3,375 9 9 1,9	11,970 14,019 8,314 17,019 8,020 36,007 -35,160 2 3,659 3,883 - 110 1,749 2,426 2,827 1,666 1,559 4,928 4,109 1,445 453 1,883 1,625 1,659 4,928 4,109 1,446 453 1,689 1,625 28,145 23,540 20,645 18,023 24,486 35,242 41,071 6 28,145 23,540 20,645 1,035 3,375 334 289 182 583 549 526 1,035 3,375 334 289 1,677 6 4,346 4,346 3,375 334 289 1,677 6 1,677 6 1,677 <td>Korea, Republic of</td> <td>17</td> <td>1,247</td> <td>9,002</td> <td>4,130</td> <td>3,395</td> <td>4,384</td> <td>8,980</td> <td>7,050</td> <td>4,950</td>	Korea, Republic of	17	1,247	9,002	4,130	3,395	4,384	8,980	7,050	4,950
178 3,659 3,863 - 110 1,749 2,426 166 1,559 4,928 4,109 1,445 453 - - 10 1,659 4,928 4,109 1,445 453 - - 10 1,659 20,645 18,023 24,486 33.75 - 2,756 2,8145 23,549 20,645 1,035 24,486 3,375 - 2,0 583 -4,550 -2,978 1,45 5,87 - 8 3,788 5,84 3,203 2,473 - 934 5,815 3,788 3,203 2,473 - 0 318 2,040 195 1,542 491 - 1,236 1,1536 1,542 1,542 1,456 - 1,236 1,249 1,300 1,260 1,456 - 1,289 1,300 1,200 1,456 - 1,279 1,289	3,659 3,863 - 110 1,749 2,426 2,827 1,666 1,559 4,928 4,109 1,445 453 1,888 1,655 1,659 4,109 1,445 453 1,886 1,655 2,81,45 2,2,540 20,645 1,8023 24,486 35,242 41,071 5 5,83 549 526 1,035 3,375 334 289 1,625 1,51 1,43 2,486 1,635 3,375 334 289 1,625 4,346 1,436 1,45 1,45 -,597 1,896 8,337 289 4,346 3,788 3,278 1,45 -,597 1,896 8,337 28 5,815 3,788 5,54 3,203 2,473 4,624 3,965 2,865 1,459 2,240 1,95 1,54 4,624 3,965 1,864 1,459 2,240 1,5621 1,542 2,54 5,162	Australia	1,866	11,970	14,019	8,314	17, 019	8,020	36,007	- 35,160	24,022
166 1,559 4,928 4,109 1,445 453 2,756 28,145 23,545 20,645 18,023 24,486 3 n - 20 583 549 526 1,035 3,375 3,375 n - 20 583 549 526 1,035 3,375 8 n - 20 583 - 4,550 - 2,978 145 - 597 84 n - 318 - 4,550 - 2,978 145 - 597 19 n 0 4,346 - 4,550 - 2,978 145 - 597 n 0 3,18 5,815 3,788 5,249 19 24,73 n 0 3,18 5,240 1,562 1,542 49 1,644 1,562 1,542 49 n 1,28 1,289 1,300 1,200 1,450 1,450 1,450 1,450 1,450 1,450 1,450 1,450 1,450	1,559 4,928 4,109 1,445 453 1,898 1,625 10 28,146 23,540 20,645 16,035 24,486 35,242 41,071 182 28,145 23,540 20,645 16,035 3,375 33,72 289 182 58,15 149 149 145 - 597 1,896 8,337 28 4,346 - 2,978 145 - 597 1,896 8,337 28 4,346 - 2,978 145 - 597 1,896 8,337 28 4,346 - 2,978 145 - 597 1,896 8,337 28 88 3,48 5,845 1,896 8,337 28 28 1,459 2,240 192 1,91 291 251 266 1,459 1,581 1,581 1,584 1,584 1,504 2,580 1,780 1,289 1,300 1,200 1,400 1,610 2,021	New Zealand	178	3,659	3,863	- 110	1,749	2,426	2,827	1,666	8,055
- 10 54 43 78 132 n 2,756 28,145 23,540 20,645 18,023 24,486 3 n - 20 4,346 20,645 18,023 24,486 3 300 4,346 -4,550 -2,978 145 84 84 934 5,815 3,78 254 3,203 2,473 934 5,815 2,08 192 191 291 114 1,459 2,240 195 1,542 491 1,236 11,536 16,484 15,621 7,200 1,664 1 1,236 1,780 1,289 1,300 1,200 1,450 2,048 1,279 1,279 1,289 2,895 2,540 2,648 1 2 964 1,289 2,895 2,590 2,092 1 9 3,002 2,590 2,048 46 1 1	10 54 43 76 132 93 182 28,145 23,540 20,645 18,023 24,486 35,242 41,071 9 58 549 526 1,035 3,375 33,242 41,071 9 151 549 149 145 84 131 381 289 4,346 -4,550 -2,978 145 84 131 381 289 8 3,788 3,48 2,24 1,896 8,337 289 5,815 3,788 554 3,203 2,473 4,624 3,965 1,459 2,240 195 1,542 491 2,51 2,8 1,459 2,240 195 1,542 491 688 1,854 1,459 1,542 491 2,88 1,504 2,20 1,780 1,581 7,200 1,460 1,604 2,021 1,780 1,289 1,300 2,97 </td <td>Taiwan</td> <td>166</td> <td>1,559</td> <td>4,928</td> <td>4,109</td> <td>1,445</td> <td>453</td> <td>1,898</td> <td>1,625</td> <td>7.424</td>	Taiwan	166	1,559	4,928	4,109	1,445	453	1,898	1,625	7.424
n 2,756 28,145 23,540 20,645 18,023 24,486 n - 20 583 549 526 1,035 3,375 1 151 149 145 145 84 300 4,36 - 4,550 - 2,978 145 - 84 - 8 - 4,550 - 2,978 145 - 59 934 5,815 3,786 554 3,203 2,473 11 1,459 2,240 195 1,542 491 1,236 11,536 11,582 1,542 491 1,236 11,536 1,542 1,542 491 1,236 1,1583 1,562 1,450 1,450 1,236 1,289 1,300 1,200 1,450 1,29 1,20 1,20 1,450 1,29 1,20 2,092 2,092 1,29 1,20 2,092 2,092 2,48 2 2,092 <	28,145 20,645 18,023 24,486 35,242 41,071 E 583 549 526 1,035 3,375 334 289 289 151 4,346 -4,550 -2,978 145 -697 1,896 8,337 88 34 24 25 19 17 28 88 34 24 25 19 17 28 5,815 3,788 554 3,203 2,473 4,624 3,965 318 2,024 192 191 291 226 226 1,459 192 1,542 4,624 3,965 3,66 2,66 1,450 1,648 15,624 1,864 1,824 1,854 1,854 1,780 1,289 1,300 1,200 1,450 1,610 2,021 1,780 1,289 1,300 1,200 1,450 1,610 2,021 1,780 1,289 2,935	Mongolia	•	10	54	43	78	132	93	182	167
n - 20 583 549 526 1,035 3,375 1 151 149 149 145 84 300 4,346 -4,550 -2,78 145 -597 - 88 34 24 25 19 - 88 34 24 25 19 - 934 5,815 3,788 554 3,203 2,473 - 0 318 208 192 191 247 27 1,236 11,536 11,542 491 1,562 491 291 1,236 11,536 1,644 1,562 1,562 491 491 1,236 1,780 1,289 5,061 3,335 5,235 2,448 1,279 1,289 1,300 1,280 2,972 2,448 1,289 1,283 2,835 2,992 2,092 1 964 1,283 2,835 2,992	583 549 526 1,035 3,375 334 289 151 149 145 145 145 289 281 4,346 -4,550 -2,978 1,45 -597 1,896 8,337 88 34 24 25 19 1,896 8,337 88 34 24 25 19 1,896 8,337 1,815 3,788 5,54 3,203 2,473 4,624 3,365 1,459 1,280 1,95 1,91 291 251 236 2,070 3,349 5,061 3,335 5,235 5,862 8,857 1,780 1,289 1,300 1,200 1,450 1,610 2,021 1,780 1,289 1,300 1,200 1,610 2,180 1,780 1,289 2,835 2,585 2,580 864 1,289 2,835 2,580 2,580 96 1,289	ASEAN states	2,756	28,145	23,540	20,645	18,023	24,486	35,242	41,071	51,480
1 151 149 149 149 146 84 20 4,346 -4,550 -2,978 145 -597 - 8 -4,550 -2,978 145 -597 - 834 -2,48 54 3,203 2,473 0 318 2,08 192 2,473 2,473 1,236 11,535 16,621 7,200 11,664 491 1,236 1,780 1,289 5,061 3,335 5,235 2,248 2,070 1,289 1,300 1,200 1,460 1,460 1,460 1,279 1,289 1,300 1,200 1,460 1,460 1,460 - 964 1,283 2,835 2,972 2,448 1,60 - 964 1,283 2,835 2,50 2,082 1,4 - 964 1,283 2,835 2,50 2,48 1,4 - 10 2,4	151 149 145 <td>Brunei Darussalam</td> <td>- 20</td> <td>583</td> <td>549</td> <td>526</td> <td>1,035</td> <td>3,375</td> <td>334</td> <td>289</td> <td>434</td>	Brunei Darussalam	- 20	583	549	526	1,035	3,375	334	289	434
300 4,346 -4,550 -2,978 145 -597	4,346 -4,550 -2,978 145 - 597 1,896 8,337 88 3,48 24 25 19 17 28 5,815 3,788 55,4 3,203 2,473 4,624 3,965 1,85 2,240 192 191 291 251 236 1,459 2,240 195 1,542 491 688 1,854 2,070 3,349 5,061 3,200 1,200 1,804 1,804 1,804 2,070 1,289 1,300 1,200 1,450 1,610 2,021 1,780 1,506 3,102 2,972 2,448 5,145 2,580 964 1,283 2,835 2,590 2,082 4,157 1,977 96 2,2 5 6 4,157 1,977 2,448 5,145 2,580 10 2,4 9 6 5 6 4,157 1,977 2,448 4,157 <	Cambodia	-	151	149	149	145	84	131	381	483
88 34 24 25 19 934 5,815 3,788 554 3,203 2,473 0 318 2,20 192 1,542 491 1,236 11,535 16,484 15,621 7,200 11,664 1,89 2,070 3,349 5,061 3,335 5,235 2,070 1,289 1,300 1,200 1,450 1,279 1,566 3,102 2,972 2,448 2,070 2,048 1,283 2,835 2,992 2,092 3,00 2,00 2,092 2,092 2,092 2,092 4 1,0 2,4 9 3,6 1,4 2,092 5 2,33 1,31 1,70 2,76 2,092 2,092 6 2,33 1,31 1,70 2,76 2,6 2,6	88 34 24 25 19 17 28 5,815 3,788 554 3,203 2,473 4,624 3,965 318 2,08 192 2,91 251 2,36 1,459 2,240 192 1,520 1,164 1,824 1,1535 16,484 15,621 7,200 11,664 19,828 1,504 2,070 3,349 5,061 3,335 5,235 5,862 8,957 1,780 1,289 1,300 1,200 1,450 1,610 2,021 1,780 1,289 1,300 1,200 1,450 1,610 2,021 1,780 1,289 1,300 1,200 1,450 1,610 2,021 96 2 5,165 2,590 2,448 5,145 2,580 96 2 5 5 4,157 4,157 4,18 10 2,4 9 36 1,4 272 54 <	Indonesia	300	4,346	- 4,550	- 2,978	145	- 297	1,896	8,337	5,556
934 5,815 3,788 554 3,203 2,473 0 318 206 192 191 291 114 1,459 2,040 195 1,542 491 1,236 11,536 16,484 15,621 7,200 11,664 1,89 2,070 3,349 5,061 3,335 5,235 1,279 1,289 1,300 1,200 1,450 1,279 1,506 3,102 2,972 2,448 1,283 1,283 2,835 2,092 1,64 1,283 2,835 2,092 1,66 2 5 5 1,66 2 5 4 1,70 2,448 2,092 1,66 2 5 4 1,66 2 5 5 4 1,70 2,48 9 36 14 1,70 2,23 131 170 276 226	5,815 3,788 554 3,203 2,473 4,624 3,965 318 2,08 192 191 291 251 236 1,459 2,240 195 1,542 491 688 1,854 1,1535 16,484 15,621 7,200 11,664 19,828 15,004 2 2,070 3,349 5,061 3,335 5,235 5,882 8,957 15,004 2 1,780 1,289 1,300 1,200 1,450 1,610 2,021 2 1,279 1,289 1,300 2,972 2,448 5,145 2,580 964 1,283 2,835 2,590 2,448 5,145 2,580 96 2 2 5 4 177 4,157 4,157 10 24 9 36 14 272 54 4,18 233 131 170 276 226 354 4,18 4,18 <td>Laos</td> <td>•</td> <td>88</td> <td>34</td> <td>24</td> <td>25</td> <td>19</td> <td>17</td> <td>78</td> <td>187</td>	Laos	•	88	34	24	25	19	17	78	187
0 318 208 192 191 291 1,236 1,459 2,240 1,652 491 1,236 11,536 16,644 1,5621 7,200 11,664 1,89 2,070 3,349 5,061 3,335 5,235 5,235 2,070 1,289 1,300 1,200 1,450 1,450 1,450 1,279 1,289 2,302 2,972 2,448 2,062 2,092 - 964 1,283 2,835 2,092 2,092 2,092 - 96 1,283 2,835 2,590 2,092 2,092 - 96 1,283 2,835 2,590 2,092 46 - 10 24 9 36 14 - 233 131 170 276 226	318 208 192 191 291 251 236 1,459 2,240 195 1,542 491 688 1,854 2,070 3,449 5,061 3,335 5,235 5,862 8,957 1,780 1,289 1,300 1,200 1,450 1,610 2,021 1,279 1,289 1,300 1,200 1,450 1,610 2,021 964 1,583 2,835 2,590 2,102 2,145 2,580 964 1,283 2,835 2,590 4,157 1,977 964 1,283 2,835 2,590 4,157 1,977 10 2 9 36 14 272 4,18 10 24 9 36 14 272 54 233 131 170 276 226 354 4,18 233 131 170 88 83 83 83 83 83 <td>Malaysia</td> <td>934</td> <td>5,815</td> <td>3,788</td> <td>554</td> <td>3,203</td> <td>2,473</td> <td>4,624</td> <td>3,965</td> <td>090'9</td>	Malaysia	934	5,815	3,788	554	3,203	2,473	4,624	3,965	090'9
114 1,459 2,240 195 1,542 491 1,236 11,536 16,484 15,621 7,200 1,664 1,89 2,070 1,289 1,300 1,200 1,460 1,780 1,289 1,300 1,200 1,450 - 964 1,283 2,835 2,892 2,448 - 96 1,283 2,835 2,590 2,082 - 10 24 9 46 14 - 10 24 9 46 14 - 233 131 170 276 2,266	1,459 2,240 195 1,542 491 688 1,854 5 1,535 16,484 15,621 7,200 11,684 19,888 15,004 2 2,070 3,349 5,061 3,335 5,235 5,835 8,957 8,57 1,780 1,289 1,300 1,200 1,450 1,610 2,021 8,57 1,279 1,289 2,835 2,590 2,148 5,145 2,580 96 -2 5 46 4,157 1,977 43 10 24 9 36 14 272 43 10 24 9 36 14 272 54 233 131 170 276 226 354 418 -24 75 83 65 70 187 88	Myanmar (Burma)	0	318	208	192	191	291	251	236	143
1,236 11,535 16,484 15,621 7,200 11,664 189 2,070 3,349 5,061 3,335 5,235 1,780 1,289 1,300 1,200 1,450 - 96 1,283 2,3102 2,922 2,448 - 96 - 2 5 46 4 - 10 24 9 36 14 14 - 10 24 9 36 14 14 - 233 131 170 276 226	11,535 16,484 15,621 7,200 11,664 19,828 15,004 2 2,070 3,349 5,061 3,335 5,235 5,862 8,957 8,957 1,780 1,289 1,300 1,200 1,450 1,610 2,021 1,780 1,506 3,102 2,972 2,448 5,145 2,580 96 - 2 5 5 4,67 1,977 4,37 10 2,4 5,145 5,145 2,580 2,580 2,580 4,157 1,977 96 - 2 5 5 46 175 43 43 10 24 9 36 14 272 54 43 233 131 170 276 226 354 418 88 - 24 75 88 70 187 88 88 88	Philippines	114	1,459	2,240	195	1,542	491	889	1,854	2,345
189 2,070 3,349 5,061 3,335 5,235 2 1,780 1,289 1,300 1,200 1,450 - 1,279 1,566 3,102 2,972 2,448 - 96 - 2 5 5 46 - 96 - 2 5 5 46 - 10 24 9 36 14 - 233 131 170 276 226	2,070 3,349 5,061 3,335 5,235 5,862 8,957 1,780 1,289 1,300 1,200 1,450 1,610 2,021 1,279 1,506 3,102 2,972 2,448 5,145 2,580 96 - 2 8,5 5,46 1,57 4,157 1,977 10 24 9 36 14 272 4,15 233 131 170 276 226 354 4,18 - 24 75 83 65 70 187 88	Singapore	1,236	11,535	16,484	15,621	7,200	11,664	19,828	15,004	24,207
2 1,780 1,289 1,300 1,200 1,450 - 1,279 1,506 3,102 2,972 2,448 - 964 1,283 2,835 2,692 2,092 - 96 - 5 5 14 - 10 24 9 36 14 - 233 131 170 276 226	1,780 1,289 1,300 1,200 1,450 1,610 2,021 1,279 1,566 3,102 2,972 2,448 5,145 2,580 96 - 2 2,835 2,590 2,092 4,157 1,97 96 - 2 5 5 46 1,57 4,157 10 24 9 36 14 272 54 233 131 170 276 226 354 418 - 24 75 83 65 70 187 88	Thailand	189	2,070	3,349	5,061	3,335	5,235	5,862	8,957	9,751
1,279 1,506 3,102 2,972 2,448 - 964 1,283 2,835 2,590 2,092 - 96 - 5 46 46 - 10 24 9 36 14 - 233 131 170 276 226	1,279 1,506 3,102 2,972 2,448 5,145 2,580 964 1,583 2,835 2,590 4,157 1,977 9 - 2 5 46 4,157 1,977 10 24 9 36 14 272 54 233 131 170 276 226 354 418 - 24 75 83 65 70 187 88	Vietnam	2	1,780	1,289	1,300	1,200	1,450	1,610	2,021	2,315
n - 964 1,283 2,835 2,590 2,092 - 96 - 2 5 5 46 - 10 24 9 36 14 an - 233 131 170 276 226	964 1,283 2,835 2,590 2,092 4,157 1,977 96 - 2 5 5 46 175 43 10 24 9 36 14 272 54 233 131 170 276 226 354 418 - 24 75 83 65 70 187 88	Central Asian states		1,279	1,506	3,102	2,972	2,448	5,145	2,580	7,605
an - 96 - 2 5 5 46 46 3 46 3 3 131 170 276 226	96 - 2 5 46 175 43 10 24 9 36 14 272 54 233 131 170 276 226 354 418 - 24 75 83 65 70 187 88	Kazakhstan	•	964	1,283	2,835	2,590	2,092	4,157	1,977	6,143
an - 233 131 170 276 226	10 24 9 36 14 272 54 233 131 170 276 226 354 418 - 24 75 83 65 70 187 88	Kyrgyzstan	•	96	- 2	5	5	46	175	43	182
an - 233 131 170 276 226	233 131 170 276 226 354 418 24 75 83 65 70 187 88	Tajikistan	•	9	24	6	36	14	272	54	385
	- 24 75 83 65 70 187 88	Turkmenistan	•	233	131	170	276	526	354	418	731
- 24 75 83 65 70		Uzbekistan		- 24	75	8	65	02	187	88	164

The Mixed Views of China in Asia and Beyond

Overall views of China's intentions are largely positive across the last five years, but a closer look at the available polling data reveal mixed reviews depending on whether military or economic frames are primed. The key finding of a June 2008 Chicago Council of Global Affairs Poll included the negative perceptions of China's growing power. Majorities or pluralities in every country surveyed—including Japan, South Korea, and the United States-were at least "somewhat worried" that China could become a military threat to their countries in the future. On the question as to whether China builds trust and cooperation among Asian countries, it received low ratings on a 0-10 scale from Americans (3.5). Japanese (4.6), and South Koreans (4.9).⁴¹

Polling data from the 2006 and 2007 Pew Global Attitudes Project conducted in China, India, Japan, Pakistan, Russia, and the United States illustrate the same concerns among their publics as to China's growing militarization. By far, the Japanese had the greatest anxiety, with 93 percent seeing China's growing military power as a bad thing. The Japanese were joined by 76 percent of Russians and 63 percent of Indians concerned about China's growing military. 42 In 2007, 70 percent of Russians, 59 percent of Indians, 89 percent of South Koreans, and 80 percent of Japanese registered the same concern. However, negative views were not universally held by other countries in the region. Majorities in Pakistan (57 percent), Malaysia (57 percent), and Bangladesh (51 percent) said that China's stronger military was good for their countries.⁴³

Regarding the importance of China's economic growth, however, the world's judgment has been generally positive. In 2007 majorities in 25 of the 46 countries surveyed outside China saw its economic growth as a boon to their own nations. Nearly all of China's neighbors felt that what was good for China's economy was good for their own. This was particularly true in Malaysia (84 percent), Bangladesh (78 percent), Indonesia (66 percent), and Pakistan (63 percent). In Russia and Japan more people believed that China's development helps, rather than hurts, their nations by roughly two-to-one. In India, 48 percent saw China's growing economy as a bad thing (versus 42 percent positive), representing a shift in opinion from 2005, when a 53 percent majority of Indians saw China's economic growth as beneficial to their nation. In South Korea a 60 percent majority saw China's economic growth as bad, in contrast to a 52 percent majority who had an overall favorable opinion of China. In Africa favorable evaluations of China's economic growth as good for their country are nearly universal-most dramatically in the Ivory Coast with 96 percent of respondents, 93 percent in Mali, and 91 percent in Kenya. Reactions also are positive in much of Latin America, including the vast majority in Chile (74 percent) and Venezuela (70 percent) and the balance of opinion in Peru, Bolivia, Brazil, and Argentina.⁴⁴

Polling conducted by the British Broadcasting Corporation (BBC) and the Pew Global Attitudes Project in 2004 and 2005 presented positive numbers ranging between 45 percent and 48 percent for people who saw China's influence as mainly positive, while negative numbers ran between 28 percent and 30 percent. However, among the twenty countries polled both years, the number of countries rating China mostly positively dropped, while those rating it negatively rose. Among its closest neighbors in Asia, the numbers dropped sharply, while African and Muslim states have consistently reported particularly high positive numbers. 45 In Pew's polling China got its highest ratings among Asian Muslim countries. Majorities in Malaysia (83 percent), Pakistan (79 percent), Bangladesh (74 percent), and Indonesia (65 percent) rated China positively. 46

In the polling data, public perceptions of China do vary and shift based on whether its behavior is primed by a military or an economic focus (or interest) and based on where in the world you look. Interestingly, views of China's intentions have shifted most dramatically among its close neighbors but remain largely positive in the Muslim world.

Taking a Foreign Policy Analysis Perspective to Explain the Roots of China's Energy Policy

The mixed reviews of the consequences of China's rising military and economic power, in part, mirror the distinctions raised in the snapshot provided by the realist and neoliberal debate over China's intentions. While both present an unpredictable energy future, realism's security threat-focus and neoliberalism/complex interdependence's opportunityfocus lead to different assessments for the chances for conflict and/or cooperation in Asia. This poses a dilemma for analyses of China's energy security approach—for example, how to reconcile these two competing perspectives of the international system.⁴⁷ Similarly, inside China there are competing interpretations of China's policy priorities and how to achieve them. The central purpose of this project is to shed light on that inner debate and process.⁴⁸

Classic voices from the foreign policy analysis perspective, such as Harold and Margaret Sprout, illustrate that the underlying and immediate impact of the strategic environment on particular policies depends on how that environment is perceived by leaders and other policymakers. They distinguish "psychological important the environment," which affects human perceptions of the environment, from the "objective environment," or real capabilities, which affects the ability of states to respond effectively. As they explain it, systemic factors such as the nature of the international system and complex interdependence influence or condition leaders' responses because they affect judgments, preferences, attitudes, and choices.⁴⁹ This point has been demonstrated repeatedly in work in foreign policy analysis and political psychology, including Robert Jervis's classic on perceptions and misperceptions, that is, how leaders see the world and the choices they make.⁵⁰ Given the role perceptions play in shaping policy decisions, it becomes critical to understand that how we define a problem shapes potential policy choices. 51 Put simply, the mind has a tendency to simplify causal inferences, to categorize and stereotype, and to use historical analogies to explain the complex world.⁵²

Within foreign policy analysis, the bureaucratic politics perspective argues that multiple interests can be at play, and multiple stakeholders often weigh in on a country's foreign policy decisions. These circumstances illustrate a situation where different definitions of the "national interest" can evolve depending on who is involved in the policymaking process.⁵³ This means that in situations where political authority is dispersed, common in modern bureaucratic states, we need to understand the nature of the various stakeholders' beliefs, attributions, and interests as well as the political context shaping how the ensuing political debate proceeds. 54 In both political psychology constructivist contexts, through the struggle over the framing (or definition) of policy problems, alternate choices may result.⁵⁵

From this point of view, digging deeper into China's energy interests and policymaking processes becomes the missing piece of the puzzle to address. Because energy crosses security, development, and environmental policy lines, among others, it can be influenced by multiple needs and interests. This study proceeds from the bureaucratic politics assumption that a healthy competition over interests and policy options exists within countries. In the China context, Kenneth Lieberthal and David Lampton argue that a matrix of relevant bureaucracies and interests produces policy decisions that can shift based on the nature of the issue under discussion and the agencies involved. 56 The next chapter will look into these competing interests further.

Organization of the Book

This work focuses on a broad definition of China's energy security approach in order to determine more about China's decision-making process. An examination of China's policy—in its domestic context and in the context of its neighbors and the United States-will aid us in exploring important international relations' questions and possibilities for cooperation and conflict in the Asia-Pacific region. The following questions organize the analysis in the remainder of the book:

- What foreign policy paradigm, if any, does China follow? What 1. explains its energy policy approach?
- 2. What external and internal factors most shape China's policy choices in general and specifically with its neighbors? What can foreign policy analysis approaches tell us about the making of Chinese foreign policy?
- 3. What policy trade-offs does it face in the energy security debate? How does the domestic need for growth and environmental security (particularly climate security) shape China's foreign policy responses?
- 4. What are the implications of China's quest for energy security for Asia, U.S. foreign policy, and the future of global energy security?

The broad outlines of China's "go forth" energy policy approach as well as the systematic, domestic, and policymaking levels that shapes its energy policy choices are discussed in chapter 2. Chapters 3, 4, and 5 focus specifically on China's "go forth" policies across Asia. Chapter 3 deals with the importance of Central Asia in China's future energy strategy and the prospects for and challenges to the creation of an energy Silk Road. Chapter 4 focuses on Sino-Japanese relations and Northeast Asia, more broadly, in the context of competition over energy resources from Russia, as well as areas of cooperation in technology and energy conservation. Chapter 5 examines China's relationship with its Southeast Asian neighbors, particularly in the Association of Southeast Asian Nations (ASEAN), encompassing disputes in the South China Sea and imports through the Strait of Malacca, as well growing economic interdependence and ties to regional organizations.⁵⁷ Chapter 6 focuses on China's greening development path, its demand-side energy policies, and the challenge that climate change poses to its energy security. The final chapter explores some implications for China's quest for energy security for its policymakers as well as the United States, Asia, and the globe as a whole in terms of its supply-side and demand-side policies.

The broad energy equation discussed throughout this book moves us beyond the narrow geopolitical focus on energy security (that is, the security of the oil supply), and specifically the China "threat" scenario, to explore the complexities of the broader energy security equation and strategies to manage its emerging challenges. This study recognizes the geopolitical challenges that states face but also incorporates a perspective of shared vulnerabilities and possible shared interests that can promote cooperation. Such a definition of energy security evaluates a country's access to other energy sources such as natural gas, coal, and renewable energy (each with different geopolitical and social calculations), as well as the linked sustainable development, environmental, and climate questions.⁵⁸ As we will see, China's energy security challenges are directly linked to its economic health, the need for continued sustainable development, and the vagaries of its internal policymaking process.

¹ Noreng, "The Rise of Asia and the Restructuring of International Oil Trading," p. 35. By this analysis, resource dependence makes a country highly vulnerable to power projection by competing states.

² Klare, *Blood and Oil*; Klare, *Resource Wars*.

³ Ebel, *China's Energy Future*.

⁴ Deffeves, Beyond Oil; Deffeves, Hubbert's Peak; Goodstein, Out of Gas; Mitchell, Morita, Selley, and Stern, The New Economy of Oil.

⁵ Van der Veer, "Two Energy Futures."

⁶ Howell and Nakhle, Out of the Energy Labyrinth.

⁷ IEA, *Resources to Reserve*, pp. 10-15.

⁸ Lauzon, Preng, Sutton, and Pavlovic, 2007 Global Energy Survey, pp. 3-6; IEA, "Searching for Optimism in IEA's Latest Energy Projection"; IEA, World Energy Outlook 2006.

⁹ IEA, World Energy Outlook 2007.

¹⁰ Downs, The Brookings Foreign Policy Studies Energy Security Series: *China*, p. 12.

¹¹ See Roberts, *The End of Oil*, which analyzes the economic, political, and social costs of fossil fuels that will be burned through in the next thirty years.

¹² Klare, Resource Wars; Klare, Rising Powers.

¹³ Noreng, "The Rise of Asia," p. 35.

¹⁴ See, for example, Ra'anan and Perry, eds., Strategic Minerals and International Security, particularly essays by R. Daniel McMichael, Paul Kreuger, and William Schneider, Jr., who note that the vitality of the U.S. industrial infrastructure, defense, and the overall economy depend on the availability of energy and other important commodities.

OPEC, "OPEC Share of World Oil Reserves (2006)."

- ¹⁶ "China, Arab States Hold First Oil Meeting." In 2003 China got 50 percent of its crude from the Middle East, 22 percent from Asian sources, and 18 percent from African sources.
 - ¹⁷ See Beng, "China Mulls Oil Pipeline in Myanmar, Thailand."
- ¹⁸ For similar reasons, U.S. President Ronald Reagan reflagged oil tankers in the Persian Gulf in the 1980s to deter Iran, and other powers, from trying to jeopardize oil shipping lanes. More broadly, some contend that American interests in the Middle East—and the U.S. motivation for the 2003 invasion of Iraq—are due to its interest in securing steady access to that region's oil. See Singer, "Oil and Security," which argues that the high costs of the Iraqi occupation illustrate why U.S. intervention in conflicts in the Middle East are not a sensible substitute for an energy policy. Prominently, Alan Greenspan argues in his recent memoir Irrational Exuberance that securing Iraq's oil reserves influenced the war policy of the George W. Bush administration. Ninkovich, The Wilsonian Century, notes that America's military policy has long supported its commercial interests.
 - ¹⁹ See Stulberg, Well-Oiled Diplomacy.
 - ²⁰ See Anderson, *Strategic Minerals*, pp. 113-120.
 - ²¹ Xu, "Theoretical Reflections," pp. 44-45.

 - ²² Noreng, "The Rise of Asia," p. 35. ²³ Calder, "Coping with Energy Insecurity."
- ²⁴ DOD. *Quadrennial Defense Review Report*, p. 29; Donnelly, "2006 Quadrennial Defense Review." A wide debate over China's intentions and capabilities (emphasizing its potential as a source of stability or instability in Asia and the world) pits the pessimists who interpret China's rise as a threat against the optimists who view China as a responsible power that sees its best interest in working within the international system. In the U.S. context, pessimists such as Richard Bernstein, Ross Munro, Bill Gertz, and Constantine Menges, among others, emphasize the current and general threat China represents for American national interests (and Western interests more generally), noting that a zero-sum, self-help world requires constant vigilance for survival. See Bernstein and Munro, "The Coming Conflict with America"; Bernstein and Munro, The Coming Conflict with China; Gertz, China Threat; and Menges, China. To others, such as Andrew Nathan, Robert Ross, David Shambaugh, and David Lampton conflict is not inevitable if a rising China can be peacefully integrated into the international system. See Nathan and Ross, *The* Great Wall and the Empty Fortress; Shambaugh, "Containment or Engagement of China"; Lampton, "Paradigm Lost."
- ²⁵ Downs, *China's Quest for Energy Security*; Calder, "Coping with Energy Insecurity," pp. 1-2; Yan, "Why China 'Goes Global' and Its Implications," p.
- ²⁶ Harbert, "U.S.-China Energy Policy Dialogue." This sentiment was repeated by a host of other U.S. government officials in conversations with the author.
 - ²⁷ Van der Veer, "Two Energy Futures."
- ²⁸ China traces its path of peaceful development to Mao Zedong's Five Principles of Peaceful Co-existence, which argue that China follows the principles of mutual respect for sovereignty and territorial integrity, peaceful coexistence, equality and mutual benefit, as well as non-aggression and non-

interference in each other's internal affairs in dealing with international relations with all other states. See Zheng, "China's Peaceful Rise to Great Power Status"; and "Foreign Affairs at the Founding of New China." See also Gill, Rising Star, which argues that China's new security diplomacy includes a more flexible interpretation of the principles of sovereignty and noninterference.

²⁹ See Jintao, "China's Development an Opportunity for Asia." See also Zheng, "New Path for China's Peaceful Rise"; Zheng, "China's Peaceful Rise to

Great Power Status"; Goldstein, Rising to the Challenge, pp. 192-193.

³⁰ Power transition theorists themselves acknowledge that while redistribution of capabilities may exacerbate conflicts of interest and intense strategic competition is likely, it does not necessarily follow that U.S.-China conflict will be the inevitable outcome. See Ross and Feng, *China's Ascent*.

31 Yu, "Harmonious World."

- ³² Hu, "Build towards a Harmonious World of Lasting Peace and Common Prosperity." See also Information Office of the State Council, PRC, China's National Defense in 2006, pp. 34-35; Information Office of the State Council, PRC, China's Peaceful Development Road; and Yu, "Harmonious World."
 - ³³ Yang, "China's Foreign Policy under New Leadership."

34 Sutter, "Why Rising China Can't Dominate Asia."

35 Nathan and Ross, The Great Wall; Shambaugh, "Containment or Engagement of China," pp. 185-86; Lampton, "Paradigm Lost," pp. 67-74.

³⁶ Keohane and Nye, *Power and Interdependence*.

- ³⁷ Ibid. For a comprehensive discussion of how technology can transform the international system, see Herrera, Technology and International Transformation.
 - ³⁸ Goldstein, *Rising to the Challenge*, pp. 15-17.
 - ³⁹ Garrett, "Compelled to Cooperate," p. 7.

⁴⁰ Kurlantzick, *Charm Offensive*.

- ⁴¹ Chicago Council on Global Affairs, Soft Power in Asia.
- ⁴² Pew Global Attitudes Project, "Publics of Asian Powers Hold Negative Views of One Another."
- ⁴³ Pew Global Attitudes Project, "Global Unease with Major World Powers.

44 World Public Opinion, "Global Poll Finds Iran Viewed Negatively."

- ⁴⁵ Ibid. Among its closest neighbors, South Korea registered a 49 percent positive view in 2005 versus 58 percent in 2004; India, 66 percent versus 44 percent; the Philippines, 70 percent versus 54 percent; Australia, 56 percent versus 43 percent; Indonesia, 68 percent versus 60 percent; and Russia, 42 percent versus 32 percent. For African and Muslim states, the BBC poll posted numbers ranging from 73 percent positive in Senegal to 68 percent in Nigeria, 66 percent in Iran, 59 percent in the Democratic Republic of the Congo, 59 percent in Kenya, 58 percent in Afghanistan, 55 percent in Iraq, 54 percent in Saudi Arabia, and 53 percent in Tanzania.
- ⁴⁶ Pew Global Attitudes Project, "Global Unease with Major World Powers." The trend for the United States is disturbing. Favorable opinion of the United States has dropped in East Asia since the early 2000s, and in some areas such as South Korea, China has been seen more positively than the United States. In the BBC's poll released in early 2006, the U.S. was viewed negatively by 47 percent and favorably by 40 percent. The Philippines polled most

favorable (85 percent), but this was balanced by unfavorable ratings by Indonesia (47 percent), Russia (52 percent), South Korea (52 percent), China (63 percent), and Australia (60 percent). See Pew Global Attitudes Project, "Dataset Download."

⁴⁷ Goldstein, *Rising to the Challenge*, pp. 10-11; Shambaugh, "Containment or Engagement of China," pp. 185-186.

⁴⁸ Xu, "Theoretical Reflections," pp. 44-45.

⁴⁹ Sprout and Sprout, "The Ecological Perspective on Human Affairs," p.

- ⁵⁰ See Jervis, *Perception and Misperception in International Politics*. For work on enemy images, see Shimko, Metaphors and Foreign Policy Decision Making, pp. 657-673. For work focusing on belief systems and foreign policy choice, see, for example, Holsti, "The Operational Code"; Walker, "The Motivational Foundations of Political Belief Systems"; and Walker and Schafer, "The Political Universe of Lyndon B. Johnson and His Advisors."
- ⁵¹ Garrison, *Making China Policy*. For example, during the Cold War the U.S. and China shared an interest (or a "strategic imperative") in overlooking their differences in order to counter the shared threat posed by the Soviet Union. Rapprochement on both sides was possible in light of the shared perception of the Soviet threat and the mutual Sino-American interest in countering Soviet plans for expansion. However, in light of the Tiananmen Square massacre, many in the U.S. reassessed China's role. After 1989, as the pressing concern of a common enemy declined, differences resurfaced and weakened the Sino-American relationship. In the U.S. view, China was transformed overnight from a helpful strategic partner that was gradually liberalizing, to an old-fashioned brutal authoritarian state.
- ⁵² Rosati, "The Power of Human Cognition in the Study of World Politics"; Fiske and Taylor, Social Cognition.
 - ⁵³ See McSweeney, Security, Identity, and Interests.
 - ⁵⁴ Beasley, "Collective Interpretations," pp. 83-86.
- 55 This study argues that the way a problem is defined simplifies the problem under discussion, which lends coherence to the problem (by shaping attitudes and cognitions), organizes the presentation of facts, frames alternatives to policies, and ultimately sets the parameters of policy choices and processes. See Garrison, Making China Policy, pp. 13-18.
- ⁵⁶ See Lieberthal and Lampton, eds., Bureaucracy, Politics, and Decision Making in Post Mao China.
 - ⁵⁷ IEA, China's Worldwide Quest for Energy Security, pp. 62-68.
- ⁵⁸ For a discussion noting areas of possible cooperation on energy between China and the United States, see a joint report by the National Research Council, China Academy of Sciences, and China Academy of Engineering, Cooperation in the Energy Futures of China and the United States.