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INTRODUCTION

China, ASEAN, and the New Global Energy Order

CHINA'S RISE AND SOUTHEAST ASIA

This book has been motivated largely by the rapid rise of China and its consequent influence in the world, particularly in Southeast Asia. As an emerging power in East Asia, China is the main driver behind the geopolitical and economic reconfiguration that is taking place in Asia. Southeast Asia is one of the areas that is affected most directly by the rise of China. On the other hand, interactions between China and ASEAN (Association of Southeast Asian Nations) will, to a great extent, affect the future and prospect of the entire Asia, leading East Asia to become the world's new economic centre of gravity, and affect the world economic and energy map.

In East Asia, few relations have evolved as much as that between China and ASEAN.¹ The threat of China looms large in the history of the relations between China and Southeast Asian countries. In particular, Chinese support for local communist groups during the 1960s and its views of ASEAN as an anti-Chinese, anti-communist alliance created distrust and frictions in China–ASEAN relations.² China's siding with ASEAN during Vietnam's occupation of Cambodia contributed to re-establishing relations with Thailand, Malaysia, and the Philippines, but those between China and Brunei, Indonesia, and Singapore were not restored until 1990–91.³ Mutual suspicion lingered through much of the 1990s, due to memories of its support for communist insurgencies and the Chinese tendency to dismiss these smaller countries as puppets of U.S. imperialism.

The end of the Cold War was a pivotal turning point in China–ASEAN relations. ASEAN and China began to perceive complementary advantages in closer cooperation. Southeast Asia had energy resources which China did not have; China was modernizing rapidly and could contribute to modernization in Southeast Asia. China embarked on a new policy that was more geared toward the East, with Southeast Asia as a major focus. China’s “good neighbour policy” was aimed at strengthening regional relations so as to surround itself with benevolent states, which would allow China to focus on its economic development.⁴ At the same time, post-Cold War uncertainties about the U.S. policies created new pressure on ASEAN to find other ways to stabilize and expand their relations with China. For the ASEAN states, the economic and political-security uncertainties surrounding the U.S. role in Southeast Asia made it especially important for ASEAN to engage China and improve relations as a kind of hedge against the possibility of further U.S. retrenchment.⁵ The turning point for ASEAN’s perceptual change about China from “China as a threat” to “China as an opportunity”, many Chinese analysts believe, is the Asian financial crisis in 1997–98.⁶ After that, the mutual interests and avenues of cooperation increased. The ASEAN states, which had developed certain values and norms to facilitate cooperation in a diverse religion-ethnic mix, began to conceive the possibility that China could be socialized into the “ASEAN Way”. China was invited to participate as a dialogue partner in the ASEAN Regional Forum (ARF) and helped set up the ASEAN plus one and ASEAN plus three discussion forums.

In 2003, Zheng Bijian, Chair of the China Reform Forum, made a speech saying that the rise of a new great power oftentimes had led to great turbulence in the international system. One important reason was that the new great power usually tried to resort to wars to destroy the existing international system. Zheng explained that China shall adopt a different approach, which he later elaborated as: “transcending ‘the traditional ways for great powers to emerge, as well as the Cold War mentality that defined international relations along ideological lines’.”⁷ China’s strategy, according to Zheng, should be a peaceful rise, i.e. working for a peaceful international environment for China’s development, and in turn safeguarding world peace with China’s development. It turns out that Zheng’s ideas are actually China’s strategy. Both President Hu Jintao and Premier Wen Jiabao espoused the road of peaceful rise. In 2005 and 2011, respectively, the Chinese government published two white papers on peaceful development. President Xi Jinping also called for building a “community of shared interests” and a “community of shared destiny”

which will provide the vision for realizing Asia's economic potential and achieving more durable security for Asia.⁸ China aims to bind its interests more closely with the countries at its doorstep.

China is using trade and investment, confidence-building measures, and development assistance to establish itself as an important regional leader. This was reflected in China's proposed establishment of the China–ASEAN FTA (CAFTA), which came into force on 1 January 2010, and the Asian Infrastructure Investment Bank (AIIB), which is to be fully established by the end of 2015. CAFTA serves important political goals, especially in terms of confidence-building, as well as solidifying and further increasing its influence in the region. CAFTA grants China access to the energy and raw materials of resource-endowed Southeast Asia, as well as providing an increased market for Chinese products and capital within Southeast Asia. For ASEAN countries, CAFTA offers access to China's market and an opportunity to cash in on China's increased wealth and consumer spending.

For both parties, CAFTA serves to diversify China's and Southeast Asia's trade away from the West. For example, the share of ASEAN's trade with the United States in its total trade decreased from 17.7 per cent in 2002 to 8.1 per cent in 2012, the share of its trade with EU-27 decreased from 13.6 per cent to 9.8 per cent; while the share of its trade with China in its total trade increased from 6 per cent to 13 per cent during the same period (see Table 1.1). CAFTA opens up new avenues and is expected to boost China–ASEAN trade alongside expanding intra-industry trade and increased investment flow between the two sides. China's trade with ASEAN as a whole grew about ninefold in just ten years from US\$32 billion in 2001 to US\$287.6 billion in 2011, and further to US\$443.6 billion in 2013, with most ASEAN countries recording trade surpluses with China.⁹ Chinese investment in Southeast Asia increased even more, from a meagre US\$144 million in 2001 to US\$6.1 billion in 2012,¹⁰ and that includes only officially reported investments.

However, although China has been actively promoting the idea that it is engaged in a peaceful rise, the message has not been wholeheartedly embraced by its neighbours. Beginning in 2010, the mutual economic and social integration and socialization process began to encounter problems that could not be readily resolved. ASEAN countries find the economic importance of China has increasingly grown, but they still remain uncertain about Beijing's long-term intentions and the consequences of China's economic activities in Southeast Asia. They are particularly concerned that as China rises economically and militarily, its request for natural resources in some Southeast Asian resource-rich countries and the South China Sea

TABLE 1.1
Top Five ASEAN Trade Partners
 (US\$ million; %)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
China	42,759 (6)	59,637 (7.6)	89,066 (8.3)	113,393 (9.3)	139,961 (10)	171,117 (10.6)	196,883 (10.4)	178,185 (11.6)	236,219 (11.8)	287,676 (12.1)	319,485 (12.9)
EU-27	97,056 (13.6)	101,364 (12.3)	131,543 (12.3)	140,237 (11.5)	160,332 (11.4)	186,719 (11.6)	208,291 (11)	171,785 (11.2)	214,091 (10.7)	240,248 (10.1)	242,599 (9.8)
Japan	97,587 (13.7)	113,400 (13.8)	143,263 (13.4)	153,834 (12.6)	161,780 (11.5)	173,062 (10.7)	214,400 (11.3)	160,863 (10.5)	218,963 (11)	255,048 (10.7)	262,884 (10.6)
South Korea	30,533 (4.3)	33,548 (4.1)	40,543 (3.8)	47,971 (3.9)	55,942 (4)	61,184 (3.8)	78,250 (4.1)	74,740 (4.9)	102,871 (5.1)	124,381 (5.2)	131,030 (5.3)
U.S.	104,954 (17.7)	117,885 (14.3)	135,864 (12.7)	153,918 (12.6)	161,195 (11.5)	179,068 (11.1)	186,242 (9.8)	149,572 (9.7)	192,295 (9.6)	196,502 (8.1)	200,027 (8.1)
Total	713,816 (100)	824,538 (100)	1,071,604 (100)	1,224,889 (100)	1,404,805 (100)	1,610,787 (100)	1,897,127 (100)	1,536,843 (100)	1,998,155 (100)	2,386,584 (100)	247,427 (100)

Source: ASEAN Trade Statistics Database.

might spark conflicts there. In the process of China's rise, the shortage of resources poses a big problem. The scarcity of natural resources available to support China's huge population and high economic growth rate is a big challenge that China must confront. The fact that China's oil, natural gas, copper, and aluminum resources in per capita terms amount to 8.3 per cent, 4.1 per cent, 25.5 per cent, and 9.7 per cent of the respective world averages,¹¹ and that China's old model of industrialization characterized by high investment and high consumption of energy resources have impelled China to search for energy resources overseas, including in Southeast Asia. The prevailing views in Southeast Asia are that, "in the eagerness to deploy Chinese capital and expertise for rapid completion of resource extraction, transportation and power-generation projects, Chinese SOEs (state owned enterprises) have been given wide leeway in disregarding environmental standards and the interests of local people affected by these projects".¹² Many Southeast Asian observers are concerned that China will replicate the sort of "neo-mercantilist" strategies that Japan adopted during its high-growth phase in the 1970s, a possibility that is reinforced by the prominence of "state capitalism" in a number of rising powers.¹³

Moreover, according to Acharya, three factors have played a major role in shaping ASEAN's concerns over China's rise: (1) China's involvement in the Spratly Islands disputes; (2) China's military expansion; and (3) suspicion over an increased "overseas Chinese presence" and its implications for interethnic relations among some ASEAN countries.¹⁴ While most ASEAN leaders do not see China as an immediate threat and see recent developments as promising and reassuring, there is still concern about how deep recent changes might run.

Here, power differences and asymmetry, made significant by both their recent and not so-recent relations, pose an important obstacle to China's ability to convince ASEAN countries that its intentions are benign. Thus, "even given China's and ASEAN's common sense of vulnerability and common grievances against larger Western powers, China remains a major power in the eyes of ASEAN".¹⁵ This suggests that ASEAN governments continue to view China's foreign policy with some measure of mistrust and suspicion in regards to the stability of the region, especially in the South China Sea.¹⁶ This is especially so in light of Beijing's recent growing "assertiveness" in terms of its energy resource exploration, maritime claims, and frequent military activities in the South China Sea. In this process, it is natural to see that ASEAN subtly began to shift from its "ASEAN way" of quiet bilateral conflict settlement to the search for a multilateral solution, as China was too big and too powerful to face bilaterally.

Hence, the rise of China's power and its influence in the world has had dual impacts on Southeast Asia. On the one hand it does create business and economic opportunities for Southeast Asian countries as it has become nearly every East Asian country's largest trading partner and increasingly important investor. On the other hand, it also results in rising concerns of ASEAN countries in terms of resource exploitation, regional security, and possible conflicts in the South China Sea. So far, the main response of the Southeast Asian countries to China's rise has been to seek regional economic integration and accelerate the establishment of an ASEAN Community, and also encourage outside big powers including the United States, Japan, and India to remain involved in the region, especially in the South China Sea.

ASEAN'S RISE IN THE GLOBAL ECONOMY

ASEAN was established on 8 August 1967 with the signing of the ASEAN Declaration by Thailand, the Philippines, Indonesia, Singapore, and Malaysia.¹⁷ ASEAN is the most advanced institution of regional cooperation in Asia and one of its oldest. At first, its goals were mainly political in nature. In particular, it sought to promote peace in what was at that time a volatile region. While these diplomatic initiatives did not promote economic integration directly, the peace and security that followed paved the way for economic growth and development throughout Southeast Asia,¹⁸ making it another emerging economy in the world.

In the late 1980s and early 1990s, ASEAN took steps to develop a free trade area. This was in marked contrast to the lackadaisical attitude.¹⁹ That attitude, as an Australian professor, Stubbs points out, had to do with a concern for sovereignty as well as domestic economic conditions in the member states. Until the late 1980s, the most populous ASEAN countries — Indonesia, the Philippines, Thailand and Malaysia — had remained heavily reliant on raw material exports and import-substitution strategies. Indonesia's oil boom of the 1970s discouraged export promotion strategies. In Malaysia, the advent of the New Economic Policy (NEP) (aimed at giving indigenous Malays a greater share of the national wealth) resulted in massive government intervention, especially in creating import-substituting heavy industries. These conditions lessened the urgency of intra-regional trade liberalization, more commonly associated with economies geared towards export promotion.²⁰ Moreover, the level of intra-ASEAN trade had remained fairly low due to colonial linkages and the impact of the Vietnam War. As the 1990s approached, ASEAN members' trade with the United

States, Western Europe, and Japan was considerably higher than with each other.²¹

A number of developments led to a shift in the attitude of ASEAN states toward significant economic cooperation initiatives, including rising protectionism in the United States, the economic recession in the ASEAN countries in the early 1980s. In addition to this, as Severino points out, this was also partially in response to China's economic rise.²² Some Southeast Asian and Western observers do worry about the region becoming a vassal of China. They foresee the emergence of a Chinese sphere of influence in Southeast Asia, or a Chinese Monroe Doctrine.²³ Southeast Asians are also concerned about economic marginalization. The single most important concern has been investment diversion to China.

ASEAN's first major initiative was AFTA (ASEAN Free Trade Agreement), which was concluded at the Singapore Summit in 1992. The treaty called for a reduction of tariffs on intra-ASEAN trade in a fifteen-year period and the abolition of qualitative restrictions and other non-tariff barriers to trade in time-specific ways. An ASEAN agreement in January 2003 provided for the eventual elimination of tariffs on intra-ASEAN trade.²⁴ The ASEAN governments agreed on a common set of tariff nomenclatures both to make it easier for their countries' companies to trade with one another and for themselves to strike trade deals as a group with other countries.

ASEAN has also made important strides in the area of investment cooperation (in the form of ASEAN "one-stop investment centres" and the ASEAN Investment Area), and trade facilitation (customs cooperation). The idea was to reduce transaction costs associated with intra-regional economic interaction, making Southeast Asia, with its vast combined consumer base, more attractive to foreign direct investment again in the face of China's rise. ASEAN has reached this goal to some extent. For example, from 2007–12, China's FDI (foreign direct investments) inflows increased from US\$83.5 billion to US\$121.1 billion, while ASEAN's FDI inflows increased from US\$85.6 billion to US\$111.3 billion, becoming the main FDI destinations in developing economies.²⁵ By 1 January 2010, AFTA was duly established among ten ASEAN countries. By the end of 2010, tariffs on 99.11 per cent of products among ASEAN-6 were eliminated, and tariffs on 98.86 per cent of products of CLMV (Cambodia, Lao PDR, Myanmar and Vietnam) countries were reduced to below 5 per cent.²⁶

In the process of AFTA, ASEAN began working to establish ASEAN economic, security, and social-cultural communities. In November 2002,

the ASEAN leaders agreed, at the Bali ASEAN Summit in October 2003, to create an “ASEAN Economic Community” (ACE) by 2020. In 2007 “Cebu Declaration”, the ASEAN leaders pushed up the deadline to 2015. The goals of ACE are: (1) to create a single market and production base, including to facilitate free flow of goods, services, investment, capital, and skilled labour; (2) to form a competitive economic region, including to introduce competition policy, establish consumer protection measures, fully implement ASEAN intellectual property rights policy, and promote infrastructure development; (3) to promote equitable economic development, including to accelerate the pace of SME (small and medium-sized enterprises) development, and enhance the overall economic growth and development of ASEAN as a region; (4) to be integrated into the global economy. According to the ACE blueprint, “ASEAN shall work towards maintaining ‘ASEAN Centrality’ in its external economic relations, including, but not limited to, its negotiations for FTAs and comprehensive economic partnership (CEPs) agreements.”²⁷

With the rapid economic rise of ASEAN and the accelerated regional economic integration, ASEAN’s position in Asia-Pacific region continues to improve. According to statistics, the total GDP of ASEAN countries in 1996 was US\$725.5 billion, decreased to US\$472.6 billion in 1998 because of the Asian financial crisis, recovered to US\$796.5 billion in 2004, and further increased to pass US\$2 trillion in 2011.²⁸ By 2012, ASEAN has a total land area of 4.43 million square kilometres, total population of 617 million, aggregate GDP of US\$2.3 trillion, total import and export value of US\$2.5 trillion, representing the fifth largest economy in the world (only after the European Union, United States, China, and Japan).²⁹ ASEAN is, as a result, likely to play a far more significant role in the global economy as the twenty-first century unfolds.

ASEAN is a bulwark of regional stability and increasing prosperity in Southeast Asia and a pivotal element in the geopolitics of the whole Asian region.³⁰ It has become a central feature of Asia-Pacific regional architecture, and to the extent that it will deepen its trade links, will play a larger role in future Asia-Pacific regional cooperation. ASEAN member states, Brunei, Malaysia, Singapore, and Vietnam, are negotiating a Trans-Pacific Partnership (TPP) with the United States, Japan, Canada, Chile, Peru, Mexico, Australia, and New Zealand. Negotiations are also continuing to set up the Regional Comprehensive Economic Partnership (RCEP). This is designed to link ASEAN’s ten member countries with New Zealand, Australia, South Korea, India, Japan, and China into one regional FTA. Together, these countries account for almost half the global

population and about a third of global output, and the share of the intra-regional trade reached over 40 per cent, making the region the world's new economic centre of gravity.

NEW GLOBAL ENERGY ORDER

The rise of China, ASEAN, and other Asian countries like India economically has prompted East Asia to become the world's new economic centre of gravity and inevitably created a great impact on the world energy market, and will hence accelerate the changes in world energy system, accelerating an energy shift from west to east.

Rising oil and gas imports are trending across Asia, in particular as China surpasses the United States to become the world's largest importer of crude oil and ASEAN as a whole, changes from energy resource exporter to energy importer. Japan's already high dependence on imported oil and gas supplies has skyrocketed after the country's nuclear reactors were taken offline following the Fukushima nuclear disaster. South Korea revised downward its plans for expanding its own nuclear power sector, which will have a negative impact on its plans to diversify energy supply. Meanwhile, growing demand in ASEAN will increasingly impact global energy markets. In a recent report on Southeast Asia, the International Energy Agency (IEA) predicts that ASEAN will become the world's fourth-largest oil importer by 2035 as its net import-dependence will almost double to 75 per cent and net imports rise from 1.9 million barrels per day (mb/d) to just over 5 mb/d.³¹ Rising Asian demand, spurred by growth in China and ASEAN countries, has been a critical driver of increases in global energy demand.

In the past years, with the surging Asia energy demand and soaring North American shale gas, the world energy system has experienced dramatic changes. The first is energy demand (oil and natural gas) shifts from west to east. The era of growing demand for oil and other fossil fuels in the industrialized countries is over; most of the future growth in demand will come from the emerging countries in Asia. According to IEA, the share of oil demand from the Organisation for Economic Co-operation and Development (OECD) countries in total world oil demand had declined from 65 per cent in 1980 to 56 per cent in 2006, and is predicted to further decline to 46 per cent in 2030; while that from Asian developing countries (excluding Middle Eastern countries) increased from 6.7 per cent in 1980 to 18.0 per cent in 2006, and is predicted to further increase to 27.5 per cent by 2030.³²

In terms of natural gas, according to IEA, the share of its demand from the OECD countries in total world gas demand had declined from 63 per cent in 1980 to 51 per cent in 2005, and is predicted to further decline to 42 per cent in 2030; while that from Asian developing countries (excluding Middle Eastern countries) had increased from 2.4 per cent in 1980 to 9.2 per cent in 2005, and is predicted to further increase to 14.8 per cent by 2030.³³

Rising energy consumption (especially coal and oil) in developing Asia is contributing to higher CO₂ (carbon dioxide). According to IEA, the share of energy-related emissions comes from OECD countries will decrease from 48 per cent in 2005 to 36 per cent in 2030, while that from the Asian developing countries will increase from 28.6 per cent to 42.5 per cent (excluding Middle East). Most of the increase in energy-related CO₂ emissions comes from China, India, and some ASEAN countries which together account for over 60 per cent of the increase in emissions between 2005 and 2030. China is by far the biggest single contributor to incremental emissions between 2005 and 2030.

The second structural change is the geographic location of the energy sector. While the remaining oil and gas reserves are concentrated in the Middle East and Persian Gulf, Africa, and Central Asia and Russia, in the other hemisphere the United States is emerging as a global energy producing giant in its own right. According to IEA World Energy Outlook 2013, as a result of tight oil and shale gas development, the United States, who has been the largest producer of natural gas since 2012, is expected to become the world's largest oil (crude, unconventional plus natural gas liquids) producer in 2015, and is expected to remain so through early 2030.³⁴ U.S. gas and oil production increase along with its slower demand growth has decreased the country's need for imports. As a result, traditional U.S. suppliers are increasingly servicing other markets, suggesting that the Indo-Pacific region will become increasingly reliant on the Middle East for oil.

At the same time, Russia is increasingly shifting its focus of energy exports from Europe to East Asia, and China is expected to become Russia's biggest export market of oil and gas soon. These dynamic changes have great impacts on the producer-supplier relationships and the energy trade flows.

The third shift in world energy system is the energy structure change. The potential ability of natural gas to serve as a substitute for coal and oil is important. Japan's greater reliance on liquefied natural gas (LNG) to

offset the deficit in nuclear power has reshaped outlooks for LNG markets. More importantly, the argument is that gas provides an obvious transition fuel to a lower carbon economy, displacing coal, especially after the shale gas revolution increases supply and keeps prices low. For example, in 2011 emissions of CO₂ in the United States dropped to their lowest level since 1995. In the European Union and United States and other parts of the world, relatively low gas prices and the rising carbon price meant that it was more expensive to generate electricity from coal than from gas.³⁵

The importance of gas and the increase of its production were partly due to the difficult development of clean energy and the result of fundamental technological breakthroughs in U.S. gas production. Technological advances, such as horizontal drilling (which eases access to layers of oil or gas) and hydraulic fracturing (which uses water pressure to release gas from hard rocks) were employed to make unconventional gas resources, such as tight gas, shale gas, and coal-bed methane, accessible on a large scale.³⁶ Doubtless, the shale gas revolution will lead to a great change in global energy development.

Another driving factor for gas use is the growing concern about carbon emissions and a growing awareness that fossil fuels cannot immediately be replaced with carbon-free alternatives. Gas burns much more cleanly than coal and oil. Producing one kilowatt-hour of electricity with natural gas emits a little more than half the amount of carbon that producing the same amount of energy with coal does.

The third factor is the difficulties for developing other alternative clean energies: it is technically and economically not yet feasible to make renewable energy such as solar power, wind power, and biofuels the main source of energy; the nuclear power crisis that happened in Japan in the early 2011 has set back the nuclear power development in the world and Southeast Asia. Many countries like Germany, France, United States, and Indonesia have announced that they will abandon or postpone developing new nuclear power projects.

The above changes in the world energy system have strategic implications for Asian countries, especially for China and ASEAN countries, and pose some critical questions for us to consider. Firstly, as China's energy demand rises and its broader energy security strategy has been to pursue supply diversity, to find more and develop more offshore oil and gas resources, China has the intention to invest more on natural gas sectors in some ASEAN countries, such as Indonesia, Myanmar, and Malaysia. Can these countries work more closely in the gas field, including gas pipeline, other energy-related infrastructures building and gas exploration? In the

background of China's rise and its growing influence in Southeast Asia, will China's intention for energy resource cooperation be looked as a threat (source of conflicts) or opportunity to its neighbouring countries? Given that there is great potential for energy cooperation between China and ASEAN countries, can the energy sector serve as a positive factor in deepening China–ASEAN bilateral relations, or vice-versa?

Secondly, as the world energy shifts east, and as the Greater Indian Ocean and the South China Sea become the world's energy interstate, maritime tensions are rising in the South China Sea and in the adjacent East China Sea. The territorial tensions in those claimed waters are not only driven by potential energy reserves and fish stocks, but also by the fact that these sea lanes and choke points are of growing geopolitical importance because of the changing world economic and energy market. Then, will geopolitical tensions over energy resources spark conflicts in the region, such as in the South China Sea? Can these tensions be reduced or conflicts be avoided through "joint development"?

Thirdly, since the United States, Japan, and India are important players in Southeast Asia, does the shifting geopolitics of energy give these big powers a new strategic tool in an intensifying rivalry with China? Or does the changing geopolitics of energy create more areas of shared interests and opportunities for cooperation between these big powers, to balance rather than increase tensions in Southeast Asia?

DEBATES ON ENERGY RESOURCE COOPERATION AND COMPETITION

Competition for scarce natural resources has been an important determining factor in human development. In history, tribes of hunter-gatherers fought over land and the flora and fauna that surrounded them, and early agricultural societies that existed along rivers fought deadly conflicts over getting their share of the water. Kingdoms, large and small, traded or battled for iron, gold, and other metals, as well as precious stones. The beginning of the Industrial Revolution in Western Europe and the input materials it required were major reasons for the expansion of colonialism.³⁷

In current world society, the core issue and main concerns of many related countries are whether competition for strategic resources will lead to conflicts between nations, whether energy cooperation can strengthen bilateral relations, and what possible impacts a big country's energy quest strategy will create.

Will energy competition lead to possible conflicts?

(1) Competition for Strategic Resources May Not Necessarily Lead to Conflicts — Resource Optimism Arguments

Scholars who hold this view believe that strategic resources can always be replaced by other resources (such as renewable energy resources). Therefore, competition for strategic resources will not lead to or exacerbate conflicts. Leonardo Maugeri stands in sharp opposition to the “oil doomsday prediction”, being optimistic about the prospects for oil supply.³⁸ He believes that due to the rising oil prices, the use of oil has been replaced by other energy products. For example, the oil had once been used extensively for power generation, but now there are few oil-fired power plants. Oil power generation has largely been replaced by natural gas and uranium.

Maugeri also referred to the internal oil substitute. The oil we use most today often refers to the conventional oil resources which is only a part of oil resources. In addition to these conventional oil resources, there are a lot of unconventional oil resources on the planet, including heavy oil, shale oil, tar sand, etc. When oil prices rise to be favourable enough for profitable exploitation of unconventional oil, then these unconventional oil will be able to substitute more oil.³⁹

Moreover, technology and machinery used for oil is in rapid upgrading due to technology innovation and development. This is also resource substitute. In the transportation sector, for example, although the dominant position of oil cannot be shaken, the engines driven by petroleum products (gasoline and diesel) are in constantly upgrading and replacement. The new more fuel-efficient internal combustion engines continuously replace old inefficient internal combustion engines.

Maugeri did not explicitly deny the theory that oil resources are limited, but he put forward that due to a number of factors, the day of oil depletion will be indefinitely postponed although occasional oil shortage cannot be completely avoided. Hence, he actually believes that oil resources are unlimited. Since oil resources are unlimited, then oil relations between countries should be non-zero sum. “Nothing should let us compete brutally for ensuring future oil supply in the face of extreme shortages and regional chaos.”⁴⁰

(2) Energy Resources May Lead to Possible Conflicts — Resource Pessimism Arguments

The Geography of Conflict is a branch theory of resource pessimism. It was raised by Michael T. Klare.⁴¹ This theory mainly describes the

relationship between natural resource endowments and conflicts between nations, with strong pessimistic colours. Klare proposed that as populations increase and economic activity expands in many parts of the world, the appetite for vital materials will only swell more quickly than nature can accommodate, resulting in resource supply not being able to keep up with the demand. Technologies that introduce alternative materials and production techniques will help overcome some of these scarcities, but cannot completely reverse demographic and environmental pressures, and some countries and regions will be unable to afford the higher costs of alternative technologies.

In these circumstances, global supply and demand will become increasingly unbalanced. Klare believes that as shortages of critical resources rise in frequency and severity, the competition for access to the remaining supplies of these commodities will only grow more intense in years to come.⁴² Hence, it can be believed that the potential for regional conflict grows in light of the fact that China, India, and some ASEAN countries such as the Philippines, Thailand, and Vietnam have growing dependence on foreign energy resources.

Another argument on possible conflicts is based on the views that a nation may have “security dilemma” on another nation’s certain military behaviour to secure its energy shipping routes, and a country’s military expansion will inevitably lead to conflicts. Realists believe mistrust between potential enemies could lead to misperception, and misperceived offensive threats can lead to countermeasures in kind, resulting in an unnecessary spiral of tensions and the danger of arms race and war.

For example, as China becomes a greater economic power, it will become increasingly dependent on shipping routes for its imports of energy resources, other inputs and goods. China’s vulnerability to having these imports choked off is acute and possible. This implies the need to develop a blue-water navy to ensure that China’s economy cannot be strangled by a maritime blockade.

But seeing from a realist prism, what China considers a defensive imperative could be easily perceived as aggressive and expansionist by its neighbours and the United States. Similarly, what looks like a defensive imperative to the United States and its Asian allies — building further military capacity in the region to manage China’s rise and military expansion — could be perceived easily as well by China as an aggressive attempt to contain it.⁴³ Hence, it is not surprising to see that “should China seek to protect its sea lanes, the U.S. Department of Defense

would see this as potentially challenging the U.S. navy's accustomed role in protecting international sea lanes and as China being capable of involvement in territorial or resource wars".⁴⁴ Thus energy is arguably a driver of one of the most complex tensions in modern politics: the naval arms race between the United States and China, centred for now in the East and South China Seas.⁴⁵

(3) Dynamic Nature of the Relationship Between Humanity and Resources

The differences between the above resource pessimism and optimism can be summed up in the following aspects. On the natural resources, resource pessimism believes that resources are limited, while resource optimism thinks that resources are unlimited. On human resource relationship, resource pessimists think that the human resource relationship is zero-sum, while the optimists consider it to be non-zero sum. Resource pessimists think that the lack of resources would inevitably lead to competition, conflict, or even war for resources; while optimists believe that human competition for resources and the outbreak of war are not common phenomena in human history.

Here the argument point of resource pessimism is that since resources are limited, they are bound to run out eventually. When resources are nearly depleted, there will be tensions between supply and demand, then the competition for resources will lead to outbreak of conflicts and even war.

Whereas the argument point of resource optimism is that resources are unlimited. Some resources seem to be limited, this is because the human's ability to exploit and utilize these resources is low, or because of a temporary lack of alternative means. Once the tensions between supply and demand rise, people will inevitably try to improve the efficiency of resource exploitation and utilization, and find alternative means. As a result, the tensions between supply and demand can be released and will disappear eventually. Therefore, conflicts or wars for resource competition will not happen.

These two views or arguments on human resource relations are convincing for their own logics. However, they have a common flaw. Their discussions are based on an assumption which can only be consistent in some cases. For example, resource pessimists assume that natural resources are non-replaceable, or assume that even if there exists

alternative resources, the substitution effect is very small. On the other hand, resource optimists believe that alternative means of resources will always appear and play an effective role of substitution. If there are always plenty of alternative resources, the possibility of the occurrence of resource conflicts will be very small. Since the basic assumptions of both resource pessimism and optimism are fixed and static, they are static resource theory.

Clearly, for resource pessimism and optimism, the question of whether resources are replaceable or not is certain and fixed, therefore, whether conflicts will happen is certain as well. However, for most resources whether they are replaceable or not is actually an uncertain question. In addition to technical factors, there are two major factors that can change the possibility of whether resources can be replaceable or not.

The first factor is the economic pressure created by resource shortage. Under such economic pressure, people will try to make alternative means of resources, including the development of resource-saving technologies, to find alternative resources, and to exploit the same resources in a wider range, so as to increase the supply of resources and reduce resource dependency. The second factor is the competition and confrontation caused by a shortage of resources. Because energies and funds are used for resource competition, confrontation or even war, this would largely delay the development of alternative means, making resource shortages even more severe.

Hence, the relationship between states in the competition for natural resources may change the above two factors. If serious competition or conflicts happen because of the shortage of resources, then, there is no guarantee that enough technologies and human capital will be used for developing alternative resources.

Therefore, the alternative means of scarce resources is related to the status of resource relations between related states in their quest for natural resources. If nations ignore the existence of alternative means of resources, see their resource relationship as a zero-sum relationship, and take confrontation actions based on this concept, then the possibility of resource conflicts is likely to be great. Instead, if states attach importance to the development of alternative means of resources, see their resource relationship as a non-zero-sum relationship, and take cooperative actions based on this concept, then the likelihood of resource conflicts will be largely reduced.

Can energy cooperation strengthen bilateral relations?

(1) Energy Cooperation Can Cement Bilateral Relations

Increased energy resource trade and project investment provide related countries with a more solid foundation for future partnerships. Based on this view, the Ministry of foreign Affairs of China argues that economic interdependence is an integral component of regional security, and that China will push for greater regional economic cooperation to ensure the development of such security.⁴⁶ Many international scholars also argue that energy cooperation can deepen regional integration and thus strengthen bilateral relations.

Saleem H. Ali argues, for example, that due to the permanence of their infrastructures, such as oil and gas pipelines and other energy projects, in strengthening interstate relations, these cooperative projects are likely to have a more lasting impact and create greater incentives for cooperation over time.⁴⁷ For the supply countries, pipelines and related infrastructure projects can provide much-needed employment and revenue for the host countries, in the process quelling some of the domestic resentment that fuels extremism.

More importantly, Ali also believes that related countries can utilize pipeline construction project as both an engine of cooperation and a tool of diplomacy. Pipelines open up regions for development and have spillover effects into downstream industries such as factories, chemical and fertilizer facilities, and refineries that have incentives to locate themselves close to sources of natural gas supply. Hence, “rather than being a source of conflict, energy has the capacity to become an integrative force, creating a large sense of shared interests and stakes in cooperation”.⁴⁸

(2) Energy Cooperation and Regional Economic Integration May Not Necessarily be a Source of Stability

Michael Yahuda of the London School of Economics argues that economic interdependence between China and the small states in Asia has not led to greater stability, as historical and contemporary political issues remain the defining characteristics of such relations.⁴⁹ Chinese investment in Southeast Asia brings the countries closer, but it also reminds politicians of “new colonialism” and mercantilist instincts, raising energy resource nationalism among host countries and generating more sources of friction. Populist cries for governments to exercise sovereign power decisively make it harder for state officials to work toward a mutually acceptable compromise.

While Paul Stevens believes that cross-border pipelines and related projects can generate conflicts and local resentments, as parties with different interests and motivations are involved, and land use cannot be compensated properly. “This invites disagreement because of the benefits to be shared and mechanisms exist to encourage both parties to seek a greater share.”⁵⁰ Jia Qingguo of Peking University also argues that economic interdependence cannot ensure good relations between China and the small states if the latter are uncertain about China’s foreign policy intentions.⁵¹ Zhao Suisheng noticed that China’s tactic of putting aside areas of disagreement in favour of creating a stable environment for economic development are limited to areas where China’s vital strategic interests are not threatened.⁵² Bluntly put, Beijing’s long-term strategic intentions might inspire deep anxieties and concerns of the local people and governments.

DIFFERENT VIEWS ON CHINA’S ENERGY QUEST STRATEGY

Most Western scholars hold that the “going out” strategy cannot fundamentally solve a country’s energy security.⁵³ “The main means of addressing China’s energy security concerns has been to rely on markets, which make it easier to diversify supply and demand, substitute fuels, and make the most of the gains in efficiency brought on by technological change”.⁵⁴ Energy security is a global problem that requires a global solution, national energy security depends on international energy security.⁵⁵ They believe, actually, that the crux of China’s energy problem is the lack of rational and efficient energy management system.⁵⁶ It needs China to further reform its energy system, for example, allowing more private companies to participate in energy sectors.

Meanwhile, the “going out” strategies for energy resources have different impacts. China’s oil import dependence has put energy security high on China’s foreign policy agenda. It pursues political relations with oil and gas producing countries, looking for bilateral agreements for future oil and gas supplies; and, through its NOCs (National Oil Companies), it has engaged in mutual investment relations in the host countries, often seeking to construct related infrastructure and energy projects. While these actions create positive benefits for local people, however, they are regarded as security threats or source of conflicts by many U.S. analysts and politicians.⁵⁷ For example, it is believed that China’s energy

cooperation with Sudan, Iran, and Myanmar could lead to increased regional and local conflicts. “China’s close relationships with oil-producing nations in the Gulf region, particularly those non-U.S.-friendly, have raised American eyebrows.”⁵⁸ Thus China’s strategic pressure has been increasing.⁵⁹

Indeed, China’s state-centred approach toward energy security has led to a mercantilist strategy to bolster energy supplies by gaining direct control of oil and gas fields and supply routes. This strategy has produced a mixed result in its foreign relations. On one hand, it has brought an opportunity to enhance cooperation with its neighbours. On the other, this is possible to destroy market order, erode confidence in fair access to future supplies and aggravate strategic distrust.⁶⁰ This strategy has contributed to mounting distrust and concerns in local communities (such as in Myanmar and Indonesia), even though the level of direct state intervention varies.

Zhu Feng, a professor of Peking University, recognized that Beijing had been overly focused on building relations with Myanmar’s government and ignored the feelings and interests of local people. Heinrich Kreft also warned that “the results of China’s resource diplomacy are being watched with growing unease, especially in Asia”, and he believed that “there is a danger that China’s neo-mercantilist strategy to bolster energy security by gaining direct control both of oil and gas fields and supply routes could result in escalating tensions in an already volatile region that lacks regional institutions for conflict resolution.”⁶¹ Hence, these scholars hold that China’s request for energy resources may become the spark for regional and international instability.

However, Llewelyn Hughes believed that “locking up oil does not matter”, because “even we allow that energy policies in the rising Asia-Pacific powers are government-led rather than firm-led, and that they are designed to enhance energy security, we nevertheless need not fear that this leads to zero-sum dynamics, as there are ample commercial opportunities available to NOCs from Asia-Pacific countries.”⁶² Moreover, Jeffrey D. Wilson held that resource security strategies are not without historical precedent in Northeast Asia. They argued that during the 1970s and 1980s, the Japanese as well as the Korean government offered financial and diplomatic assistance to their industrial corporations to sponsor the development of new mining firms in Latin America and Southeast Asia.⁶³ Thus China’s “going out” strategy would create more positive impacts than negative impacts.

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