

China, Latin America and the United States: A Troubled Energy Triangle

GENARO ARRIAGADA AND RAMÓN ESPINASA, WITH KATHRYN BARAGWANATH



Inter-American Development Bank

For decades, the United States has been a critical player in Latin America's energy landscape as the main consumer of the region's oil exports and a vital source of investment. But that deep-rooted relationship is unraveling, as the United States heads toward self-sufficiency and China emerges as a major consumer of global oil supplies and a growing source of financing for the region.

Until recently, the United States seemed condemned to an ever-growing oil and gas deficit, while Latin America appeared destined to export large surpluses. For decades, this cemented a mutually beneficial relationship where the main suppliers of oil to the United States were the countries south of the Rio Grande. But a recent boom in unconventional oil and gas from the United States and its main supplier Canada has reduced demand for Latin America's oil exports.

Meanwhile, in China, oil demand is growing rapidly, encouraging the country to secure energy resources in Latin America through direct stakes in exploration and production, large oil-backed loans to Latin American state oil companies and huge infrastructure investments. China has also become the number one trading partner for several major Latin American economies across all sectors.

This shift has led to the perception among some US analysts and officials that the Chinese pose a challenge to US interests

in the Western Hemisphere.¹ Chinese companies in Latin America have also drawn criticism over disregard for environmental, labor and corporate governance standards.

However, the emergence of a new energy triangle between China, Latin America, and the United States offers great opportunities for mutual benefit.² Given the fungible nature of oil, energy collaboration and conflict are increasingly global rather than local, and governments must consider not only who owns energy resources, but also whether global oil demand is met in order to reduce the prospect of scarcity, price surges and political conflicts.³ China's presence should open up new markets and financing opportunities for Latin America, where insufficient investment and declining production plague many of the region's major oil producers. But the United States will also remain an important source of investment and a major political player in the region. Therefore, energy relations between the three entail not only competition but also cooperation through joint actions.⁴

¹ US Congressman Dan Burton, Western Hemisphere Subcommittee of the House. April 2005. See also Shixue Jiang, "The US Factor in Sino-Latin American Relations," *China Focus*. November 3, 2011.

² R. Evan Ellis, "The United States, Latin America and China: A 'Triangular Relationship?'" Inter-American Dialogue Working Paper. May 2012.

³ See, among others Mikkal Herberg, "China's Energy Rise and the Future of US-China Energy Relations." New America Foundation. June 2011.

⁴ American University, School of International Service, "Chinese Engagement in Latin America and the Caribbean: Implications for US Foreign Policy." December 2012.

FOREWORD

I am pleased to present another working paper of the Inter-American Dialogue's Energy Policy Group, prepared by Dialogue senior fellow Genaro Arriagada and Ramón Espinasa of the Inter-American Development Bank. A distinguished Chilean analyst and former minister of state, Arriagada has led the Inter-American Dialogue's Energy Policy Group since its establishment in 2009. Espinasa is the lead oil and gas specialist at the energy division of the Inter-American Development Bank (IDB), and previously served as the chief economist for Petróleos de Venezuela (PdVSA).

In this working paper, Arriagada and Espinasa analyze the dynamic "energy triangle" constituted by China, the United States and Latin America. They review the implications of the United States' increasing domestic energy production, China's rapidly expanding energy needs, and the changing composition of the energy matrix in both countries for global patterns of energy production and consumption. The authors also detail the challenges faced by energy-rich countries in Latin America, where production and investment have contracted over the past decade.

For Arriagada and Espinasa, the complementary needs of China and Latin America create the possibility of a mutually beneficial relationship in the twenty-first century. They evaluate three principal forms of Sino-Latin interaction in the energy sector. These include: China's imports of Latin American energy; its foreign direct investment in Western Hemisphere energy resources; and oil-backed loans from Chinese banks to Latin American governments. Arriagada and Espinasa conclude that only first of these is conducted in a way that is satisfactory to both parties, and that many gains from cooperation remain unrealized.

This working paper is part of a series of studies carried out through the Dialogue's initiative on energy policy in the Americas. Previous papers have dealt with a diverse set of energy policy issues, including the opportunities for shale gas in Latin America, social conflicts over energy development, the prospects for nuclear power, and the management of Brazil's national oil company Petrobras. Our aim is to inform and shape national and regional policy debates on the energy challenges confronting the countries of Latin America, improve the quality of attention to those challenges, and encourage multilateral cooperation to address them.

The Inter-American Dialogue's Energy Policy Group is a professionally and politically diverse group of some 20 energy analysts, corporate leaders, and policymakers, created with the generous support and cooperation of the Inter-American Development Bank. The views expressed in this working paper do not necessarily reflect those of Energy Working Group members or the Inter-American Dialogue.

Michael Shifter

President

I. The Global Framework: Two Energy Superpowers with Distinct Vulnerabilities and Agendas

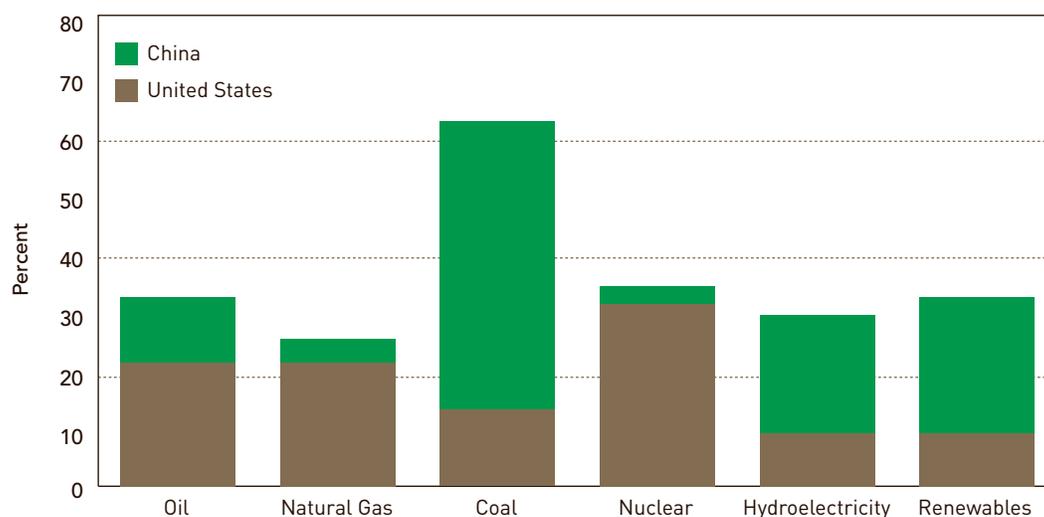
Over the coming decade, China will remain far behind the United States in terms of military power and scientific and technological development, but it will catch up with and possibly overtake the United States in economic terms. China is already the world's leading producer of manufactured goods and soon will have the world's largest GDP. China has already surpassed the United States in demand for energy: in 2011 China consumed 21.3 percent of world energy, while the United States consumed 18.5 percent. Together the two superpowers wield an undeniable weight in the energy sector, accounting for about 40 percent of the world's primary energy consumption. The United States is currently the world's third leading oil producer, and together with China accounts for 14 percent of the world's oil production —slightly more than the individual share of either Saudi Arabia or Russia. The United States and China rank first and second in consumption, respectively, accounting for 32 percent of global demand for oil. They are also the two largest consumers and producers of coal, though China's role in this sector eclipses that of the United States, accounting for half of world production and consumption

while the United States accounts for roughly 14 percent of both. The United States is by far the largest consumer of natural gas, although China's demand is growing at a substantially higher rate than that of any other country. It currently stands behind Russia and Iran as the world's fourth largest consumer.

China is also the largest producer of hydroelectricity. The United States ranks fourth, slightly behind Brazil and Canada. The United States and China together account for a third of global production of renewable energy, with the United States ranking first and China third, behind Germany. Only in nuclear energy is there a distinct imbalance: the United States is by far the world's largest producer and China is in eighth place, generating less than one tenth of the nuclear energy produced by the United States.

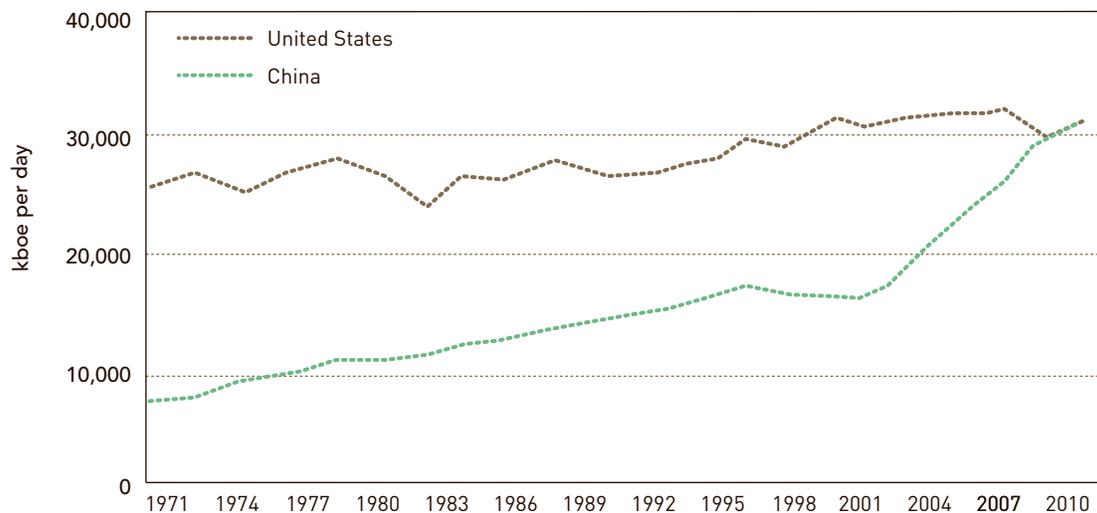
Given the significant role of the United States and China in the energy sector, global policies will depend largely on the extent to which they agree and collaborate. In large measure, internationally agreed decisions will require cooperation between the United States and China on issues such as climate change, the development of cleaner energies and the protection of gas and oil transit lanes (particularly maritime lanes), the latter being an area in which the US military has undeniable superiority.

Figure 1. Share of World Energy Consumption



Source: Authors' analysis based on data in the *BP Statistical Review of World Energy, 2012*.

Figure 2. Total Energy Consumption in China and the United States (1971–2010)



Source: Ramón Espinasa. Presentation, “China’s Energy Requirements” for the Inter-American Development Bank and the Inter-American Dialogue, March 2013.

In recent decades, Chinese energy consumption has grown to equal that of the United States. This is surprising, given that in 1971 total US energy demand was quadruple China’s.

Yet statistics do not tell the whole story. For at least the next two decades, the United States looks set to face more stable and promising circumstances than China, whose future seems less certain and more precarious.

Composition of the energy matrix

Although the two countries consume similar amounts of energy, the compositions of their energy matrices contrast starkly.

Both countries rely more heavily on fossil fuels—which comprise roughly 87 percent of the energy mix in the United States and 90 percent in China—than on cleaner nuclear, hydroelectric and renewable energies. However, China’s energy sector is significantly “dirtier” than that of the United States. Coal accounts for 70 percent of the energy matrix in China, making it the most coal-dependent country in the world. In the United States coal accounts for only 22 percent, and in Latin America for a mere 5 percent. Coal accounts for 35 percent of energy consumption

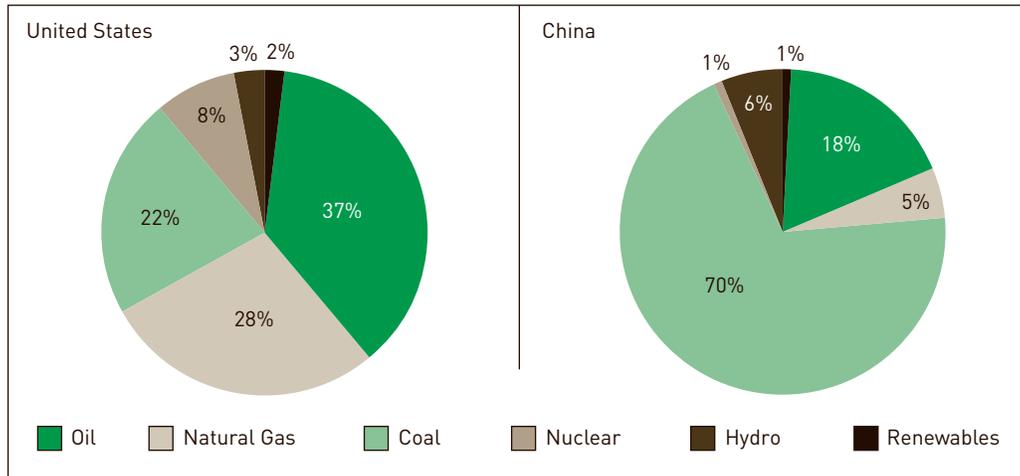
in China, but for only 2 percent in the United States.⁵ The differences do not end there; natural gas—the cleanest fossil fuel—makes up 28 percent of the US energy matrix but only 5 percent of China’s.

Pollution as a problem and an opportunity

Another challenge weighing on China is environmental pollution. As mentioned above, the large share of fossil fuels in China’s energy matrix, especially coal, has an adverse effect on climate change. The country’s poor energy efficiency amplifies this effect. Not only does China operate many coal-fired thermoelectric plants, but most of them use obsolete technologies. Hence Chinese plants must burn roughly twice the amount of coal that European or US plants require in order to produce the same amount of electricity.

As environmental concerns increasingly capture global attention, China must make its coal plants less polluting and more efficient. The country must diversify its energy supply to include new products, such as ethanol and biofuels, and raise the share of cleaner fossil fuels such as natural gas. It

⁵ Ramón Espinasa, Presentation, “China’s Energy Requirements” for the Inter-American Development Bank and Inter-American Dialogue, March 2013.

Figure 3. Energy Matrices of the United States and China

Source: Authors' analysis based on data in *BP Statistical Review of World Energy, 2012*.

should also move more swiftly toward cleaner sources of energy such as hydroelectric and non-conventional renewable sources. Aware of these challenges, China's current leadership is committed to research and development in the area of highly efficient coal plants, as well as new technologies for the exploitation of wind and solar energy that are rapidly becoming competitive in global renewable energy markets. China is also building more thermonuclear plants than any other country. By substantially improving its emissions outlook, China could protect its large export sector from challenges by other countries with more demanding environmental standards. Investing in cleaner energies could also make China a leader in the production and sale of environmentally friendly energy technologies, especially in its rapidly growing non-conventional renewables sector. Although its controversial policy of subsidies and market protectionism has sparked disputes with Europe and the United States, it has become accepted wisdom that China's promising advances in clean technologies are a major source of competition for Western firms, especially in solar and wind energy.

Projections of future demand

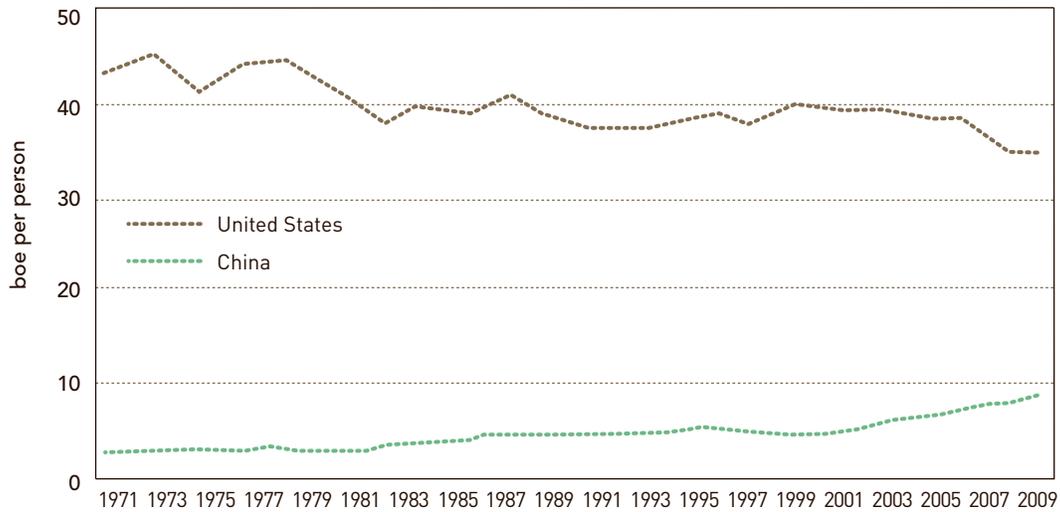
As mentioned earlier, China is currently the world's leading consumer of energy. Its per capita consumption, however, is significantly lower than that of the United States, indicating the growth potential of the Chinese market.

The composition of China's energy consumption is characteristic of developing countries. In China about 47 percent of energy is consumed by industry, while in the United States that sector accounts for less than 19 percent of consumption. By contrast, transportation in China accounts for a mere 12 percent of energy consumption, compared to 39 percent in the United States.

China's explosive per capita income growth, its rapid urbanization, and the rise of a large middle class are fueling an equally swift increase in energy needs. Demand for oil in the transport sector is projected to rise to about 35 percent of energy demand, roughly the same proportion as in Latin America. China has also quadrupled its consumption of natural gas in the past decade, though it still accounts for just 5 percent of global demand. The US share of global gas consumption, by contrast, has fallen from 26 to 21 percent.

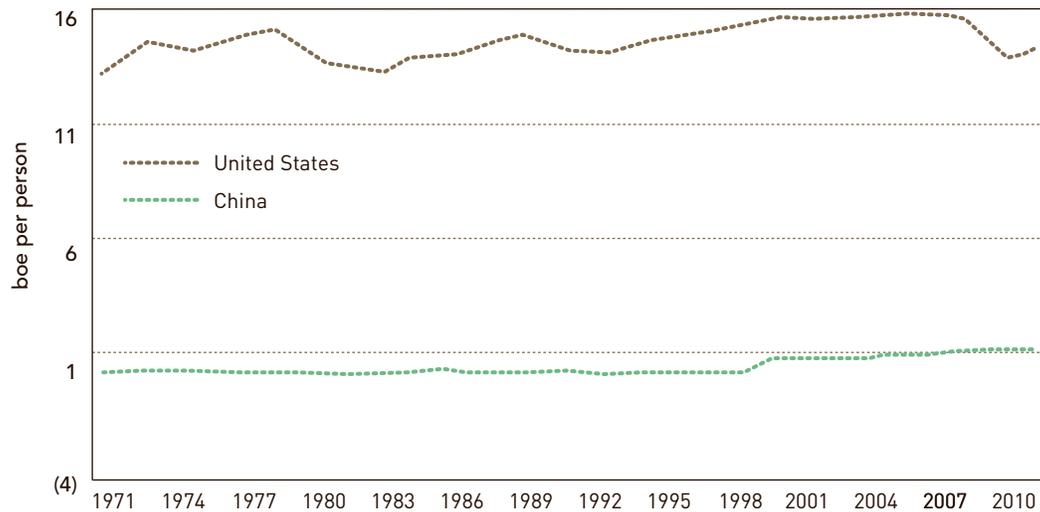
China and India are expected to drive future growth of global energy demand, with the United States playing a secondary role. Projections by the International Energy Agency (IEA), for example, indicate that between 2005 and 2030,

Figure 4. Per Capita Energy Consumption, United States and China (1971–2009)



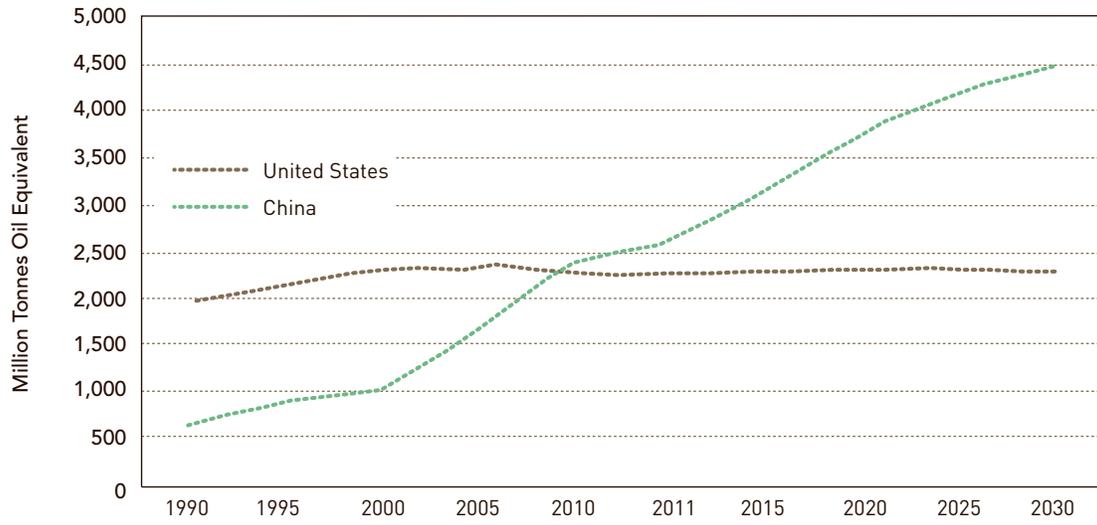
Source: Ramón Espinasa. Presentation, "China's Energy Requirements" for the Inter-American Development Bank and the Inter-American Dialogue, March 2013.

Figure 5. Per Capita Energy Consumption in Transportation, United States and China (1971–2010)



Source: Ramón Espinasa, Presentation, "China's Energy Requirements" for the Inter-American Development Bank and the Inter-American Dialogue, March 2013.

Figure 6. Historic and Projected Energy Consumption



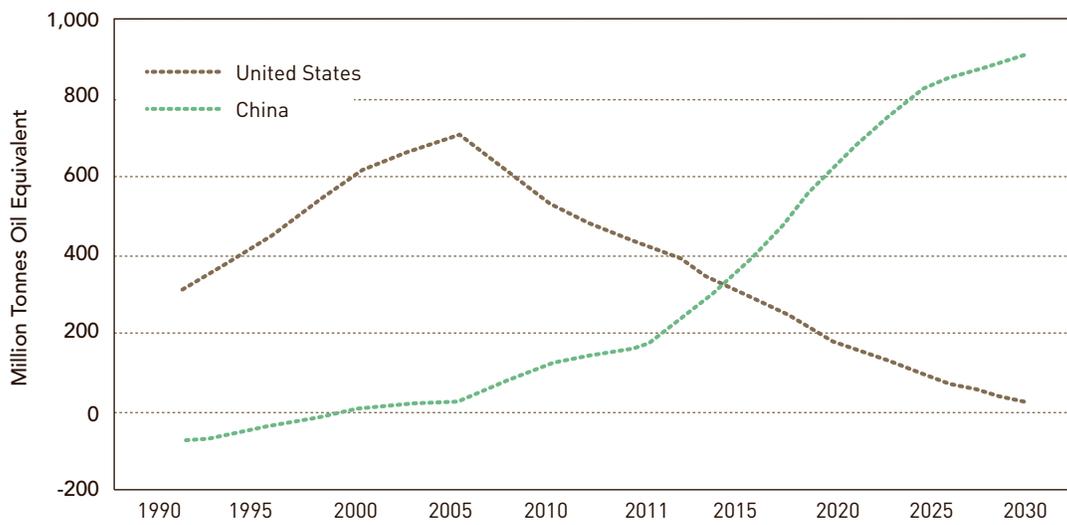
Source: BP Energy Outlook 2030, January 2013.

China and India will account for more than 40 percent of the growth in global demand, including 80 percent in the case of coal, 60 percent for nuclear and just over 40 percent for oil. Another IEA study projects that between 2008 and 2020, energy demand in the United States and Europe will grow by 14 percent, which will be dwarfed by China's

80 percent expansion. In a similar document published in January 2013, British Petroleum (BP) concurred that by 2030, total Chinese energy consumption will be double that of the United States.

On the production side, BP estimates that the United States will meet 99 percent of its energy needs domestically

Figure 7. Historic and Projected Energy Imports



Source: BP Energy Outlook 2030, January 2013.

by 2030, with the production of renewable energies growing by 202 percent, oil production by 45 percent, and the natural gas and nuclear energy sectors by 32 percent and 8 percent, respectively. The United States will become the largest producer of liquid fuels by 2013. China's energy production is projected to grow by 46 percent by 2030, but this increase represents a rise of just 1 percent as a share of the world total, and thus the country's global share will increase only slightly from 20 percent to 21 percent. By 2015 China will be the world's leading importer of energy, as its dependence on energy imports increases from 6 percent to 20 percent.

Resource availability

The divergences between China and the United States extend beyond their distinct energy matrices and demand growth patterns. The resources available to each economy are also widely different. Given recent developments in the United States, analysis of resource availability must consider two distinct trends—global energy patterns that prevailed until 2010, and projections arising from the so-called North American “shale revolution.”

Table 1. Reserves and Production of Primary Energy

	United States			China		
	Reserves	Production	R/P	Reserves	Production	R/P
Oil	2	9	11	1	5	10
Gas	4	20	13	1	3	30
Coal	28	13	239	13	49	33
Nuclear		31			3	
Hydro		9			20	
Renewables		23			9	

Source: *BP Statistical Review of World Energy*, June 2013.

Table 1 shows that US oil reserves are double China's, while US natural gas reserves are four times greater. The comparison is still less favorable for China when we look at coal, an area in which US reserves are five times the size of China's. Reserve-production ratios indicate that (absent global energy trade) current reserves will be depleted in 240 years in the United States and 33 years in China if current production levels are maintained. In fact, China became a net importer of coal in 2007. However, China's hydropower

capacity is more than double that of the United States. This disparity is reversed in the area of nuclear power, where the United States produces more than 10 times what China does, and in renewables, where US production is twice that of China's. Spurred by the enormity of its environmental problems, however, China has rapidly transformed itself into a world leader in the development of non-conventional renewable energy technologies.

This disparity in resource availability is also apparent in the two countries' supply deficits, calculated in Table 2 as internal production minus consumption.

While US consumption and imports of oil declined between 1990 and 2010, in China consumption quadrupled and imports rose from less than 1 percent to almost 10 percent of the world total. Both countries accounted for 1 percent of total coal imports in 1990, but 20 years later the US share had doubled and China's was a staggering 15 times higher.

If shale oil and gas is included in the analysis, the energy supply picture for the United States appears even more favorable. The “shale revolution” has been considered the most dramatic transformation of the energy sector in the past 50 years. North American oil production, including both conventional and non-conventional sources, will be 50 percent higher this year than in 2008, and the IEA has projected that the United States will overtake Saudi Arabia as the world's largest oil producer by 2017. The transformation is even more impressive in the gas sector. In 2000, shale gas accounted for 1 percent of the US gas supply, but by 2011 its share had grown to 25 percent and it is estimated that by 2030 it will account for 50 percent.

Given such circumstances, the notion that North America will become a net exporter of energy by the end of this decade has begun to gain traction. It will be further reinforced if the energy reforms of Mexican President Peña Nieto succeed in reversing the country's declining production of hydrocarbons.

Conclusion: The “Going Out Strategy”

Chinese policymakers are aware of the country's energy challenges, in terms of both access to resources and the polluting effects of its current energy matrix.

China's oil strategy has long been driven by the idea—characteristic of “continental countries”—that it was destined for self-sufficiency and even to be an exporter of oil.

Table 2. Share of Global Production, Consumption and Imports of Oil, Gas and Coal, 1990, 2000 and 2010

		Production			Consumption			Imports		
		1990	2000	2010	1990	2000	2010	1990	2000	2010
Oil	US	14%	10%	9%	25%	26%	22%	26%	26%	22%
	China	4%	4%	5%	3%	6%	11%	0%	4%	10%
Gas Natural	US	26%	23%	19%	28%	28%	21%	—	21%	11%
	China	1%	1%	3%	1%	1%	3%	0%	0%	2%
Coal*	US	25%	24%	15%	22%	24%	15%	—	—	—
	China	25%	32%	48%	23%	30%	47%	1%	0%	15%

Source: BP Statistical Review of World Energy 2012. Data on coal imports were obtained from the US Energy Information Administration (EIA).

This seemed within the realm of possibility while China was an underdeveloped, rural economy with very low levels of per capita GDP. With its highs and lows, as Daniel Yergin⁶ describes it, the Chinese oil industry passed through Mao's government and the Cultural Revolution before entering a stage of deep economic reform under Den Xiaoping. During this phase, a transition period that Jeffrey Sachs has described as the biggest economic miracle in the history of humanity, Chinese oil production exceeded domestic needs. By 1993, however, the idea of self-sufficiency had succumbed to reality and China became a net importer of oil. Although it is true that China is now the fourth largest producer in the world together with Iran (surpassed only by Saudi Arabia, Russia and the United States), its energy deficits have grown.

China's leadership ultimately came to accept that it will not be able to solve its energy problems domestically, and that this poses a serious threat to national security and development. As a result, China's "going out strategy" creates an imperative for firms to seek oil and other forms of energy in a diverse mix of countries. This practice has become a defining feature of China's relations with the rest of the world, including Latin America.

China has taken serious steps to reduce greenhouse gas emissions and is currently the leading investor in renewable energies, announcing total spending of US\$275 billion over the next five years to decontaminate the air in its cities. This investment is roughly equivalent to the GDP of Hong Kong, and twice the amount of annual Chinese spending on

defense. Carbon markets have been established in seven of China's main cities, several environmental laws have been passed, and a Ministry of Environmental Protection was established in 2008. By 2020, China hopes that renewable sources will account for 20 percent of its energy consumption. Solar and wind power will no doubt comprise a large part of that total, given that China invested about US\$67 billion in those technologies in 2012 (three times Germany's investment), and that China proposes to continue investing at high levels throughout the 2011–2016 period.⁷

II. Latin America: Energy Production and Collaboration in the Americas

As the dominant role of China and the United States has redefined the global energy industry over the past 10 years, Latin America's status as an oil producer has deteriorated and lost relative importance.

An examination of the oil industry in South America and Mexico over the last decade prompts more concern than enthusiasm. It is true that proven oil reserves have increased in South America, rising from 8.9 percent of the world total in 2000 to 17.3 percent in 2010. Further investigation, however, reveals that if Venezuela is excluded the relative growth in reserves was negligible, from 1.9 percent of the world total to 2 percent. More than half of this growth originates in Brazil, whose proven reserves should increase once the country's "pre salt" resources are accounted for. The situation is

⁶ *The Quest: Energy, Security and the Remaking of the Modern World*. New York: Penguin Press, 2011.

⁷ *The Economist*, August 10, 2013. Print edition.

Table 3. Proven Oil Reserves and Production, 2000 and 2012

(% of world total)

Region	2000		2012	
	Reserves	Production	Reserves	Production
Middle East	63.1	31.5	48.4	32.8
South and Central America	8.9	9.1	19.7	8.5
Europe and Eurasia	9.8	20	8.5	20
Africa	8.5	10.4	7.8	11
North America	6.2	18.5	13.2	18.1
Asia/Pacific	3.6	10.5	2.5	9.6
TOTAL	100	100	100	100
Mexico	1.2	4.6	0.7	3.4

Source: BP Statistical Review of World Energy, June 2013.

more troubling in Mexico, where proven reserves have fallen from 1.2 percent to 0.8 percent of the world total.

If the last decade was mediocre on balance as regards reserves, it was distinctly negative as regards production. Output appears to be stagnant. The region produced 6.8 million barrels per day in 2000 and 6.9 million barrels per day in 2010. Venezuela, the country with the largest reserves, is the worst performer in terms of production, with output falling by 800mmbbl/d. The situation has been equally worrying in Mexico, where production fell by some 500mmbbl/d between 2000 and 2010. A bright spot has been Brazil, whose share of world production rose from 1.7 to 2.7 percent. While Colombia stands out as another recent success story, its production growth potential is limited by its comparatively modest reserves. Argentina, on the other hand, has transitioned from being a net exporter to a net importer of oil and gas because of poor management of its energy sector. Output in Ecuador has been stagnant even though its substantial reserves could support a trebling of production. Poor performance throughout much of the region does not stem from a lack of resources, but rather from institutional and political factors such as poor administration of national oil companies (NOCs) and flawed regulatory frameworks.

Stagnating production has coincided with rising internal demand, which in turn has led to smaller exportable surpluses. Table 4 shows this decline in five of Latin America's oil exporting countries. Total exportable surpluses fell by 33 percent over the course of the last decade, and if it were

not for the strong increase in Brazilian production, export surpluses in the region would be negligible.

Table 4. Production Minus Consumption

(millions of barrels/day)

	2000	2012	Production 2012/2000
Countries with Surplus			
Argentina	385	52	-167
Colombia	476	568	257
Ecuador	281	231	102
Venezuela	2680	2692	-372
Mexico	1500	837	-545
TOTAL	5322	4380	

Source: BP Statistical Review of World Energy, June 2013.

The deterioration of Latin American oil production has produced a shift in energy trade in the Western Hemisphere. Relations remained complementary through the mid-1990s, when US import needs reached about 9 million barrels a day and Mexico and Venezuela's export surplus together accounted for almost half of that amount (4mmbbl/d). Including Canada's approximately 600mmbbl/d surplus, about half of the considerable US energy deficit could be covered by exports from within the Hemisphere.

Ten years later, in 2005, the North American deficit had grown by 3.5 million, while Mexico and Venezuela's export surplus has remained the same. Yet the situation began to reverse itself in the following years. The North

American deficit ceased to grow, and even began to diminish. Meanwhile, Latin American oil extraction began to fall, causing production in Mexico and Venezuela to decline to 1.2 million barrels per day.

Despite these significant shifts, analysis continued to be based on the old assumptions: (i) that the United States would remain the world's largest energy importer as its need to import oil and gas grew; (ii) that such a deficit was a great opportunity for Andean countries, including Venezuela and to a lesser extent Ecuador and Colombia, given that the size of their reserves would allow them to double production as long as the correct measures were applied; and (iii), that non-Andean countries, including Brazil, would not play a major role in the complementary energy relationship, since they were tending towards self-sufficiency.

Today this outlook seems obsolete, especially if the momentum of the North American energy revolution can be sustained. This would open a new framework of collaboration within the Americas. An important aspect of these new circumstances would be the reduction of the US energy deficit until it disappears completely, eventually leading to US energy self-sufficiency. The effects of this trend are even more dramatic if Mexico and Canada are also considered. Canada's exportable surplus has been growing constantly over the past seven years, while Mexico's production could increase substantially if President Peña Nieto's energy reforms are successful.

The decline of North America's energy deficit, whether in part or in full, forces Latin America to confront both longstanding and emerging issues. First, the decline of the region's oil industry must be addressed. This is particularly pressing for Venezuela and Ecuador, both of which have substantial gaps between very large oil reserves and persistently falling production. Second, even with declining export surpluses, Latin American countries must identify new export markets to offset falling demand from the United States. China could be one such market.

III. The Possibility of a Virtuous Triangle

The different circumstances in the United States, China and Latin America indicate broad scope for the three parties to cooperate on energy issues. While the United States approaches self-sufficiency, it may also have an interest in alleviating geopolitical tensions related to energy security, and to addressing cost and sustainability concerns at a global level. China, in turn, faces growing domestic demand for energy that will require increased energy imports and force it to seek out new markets. A region like Latin America, with vast reserves of oil and gas, is therefore very attractive to China, even if its energy industry faces major challenges.

China's "going out strategy" creates an imperative for firms to seek oil and other forms of energy in a diverse mix of countries, including Latin America.

The third actor in this relationship, Latin America, must assume that impending energy self-sufficiency in North America will mean the progressive loss of a close and stable market for its energy exports. It will be forced to identify and cultivate new partners for this trade, particularly in Asia-Pacific countries such as China, Japan and India. At the same time, Latin America needs to increase oil and gas production, an endeavor that will require significant capital investments. Chinese and American financial markets, among others, might be sources for this financing.

More detailed analysis reveals several potential obstacles to this partnership. Chinese banks (China Development Bank and China Ex-Im Bank) and contracts often lack transparency, and in some cases the available statistics do not shed sufficient light on energy sector activities. It must also be kept in mind that Latin America is not a single unit (except in geographic and, to some extent, cultural terms) but rather an array of different countries. Led by governments of distinct political orientations and ideologies, with diverse resources, and with different institutions and regulatory frameworks for the management and exploitation of

such resources, the countries of the region have varying economic interests and different degrees of complementarity with the United States and China.

Sino-Latin American economic relations are mutually beneficial in certain areas but more contentious and challenging in others. In the energy sector, three major activities differ widely in their impacts:

1. foreign direct investment (FDI);
2. oil-backed loans; and
3. trade in oil, gas and coal.

This paper focuses to the first two forms of engagement, given that they are more complex and less studied, while natural resource trade has been analyzed at considerable length in the literature.

IV. Foreign Direct Investment (FDI)

The data⁸ indicate that China's FDI is mainly concentrated in the Asia-Pacific region (75 percent), while Africa (4 percent), Europe (5 percent), and North America (2 percent) account for just a small fraction of it. Latin America and the Caribbean (LAC) is the second main regional destination for Chinese FDI, accounting for 14 percent of FDI stock.

This ostensibly promising amount of FDI in Latin America, however, obscures a less rosy reality. At the end of 2009, 93 percent of the stock of Chinese FDI in Latin America and the Caribbean was concentrated in just two territories: the British Virgin Islands (48.9 percent) and the Cayman Islands (44.1 percent). In contrast, the seven most important economies in the region (Brazil, Mexico, Argentina, Colombia, Venezuela, Chile and Peru) together accounted for less than 4.5 percent of the total.⁹

According to available information, Chinese investment in oil and gas is concentrated in four countries: Brazil, Argentina, Venezuela and Ecuador, with additional minor investments in Cuba, Peru and Colombia. Depending on the degree of transparency of the countries (with Brazil being the most transparent and Venezuela the least), it is possible to identify the scale and nature of these investments with some precision.

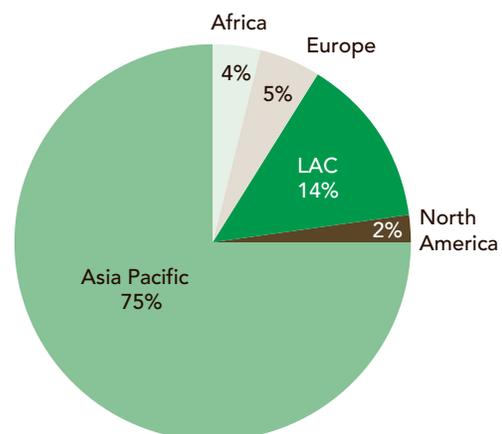
⁸ 2010 Statistical Bulletin of China's Outward Foreign Direct Investment, Ministry of Commerce of China, 2010.

⁹ *Ibid.* See also data in Osvaldo Rosales and Mikio Kuwayama, "China y América Latina y el Caribe. Hacia una relación económica comercial estratégica." CEPAL, March 2012.

In the case of Brazil, an agreement was signed in 2006 between China Petroleum & Chemical Corporation (Sinopec) and Petrobras for the construction of the Cabiunas-Vitoria gas pipeline. In 2010, Norwegian StatOil sold 40 percent of the company to Sinopec for the exploitation of oil fields in Peregrino on the Brazilian coast. That same year, Sinopec acquired the 40 percent owned by Repsol-YPF in Brazil and 30 percent owned by the Portuguese company Galp Energia.

Judging from official statistics, the scale of Chinese investments in Venezuela (excluding oil-backed loans) is impressive. Yet the available data seem to be an amalgamation of investments already made or ongoing, combined with agreed projects and declarations of intent. The China National Petroleum Corporation (CNPC) effectively operates the fields of Caracoles and El Tigre in the Orinoco area. There are also announcements, projects and memorandums of understanding to create mixed companies between CNPC and Petróleos de Venezuela (PDVSA). These mixed companies would handle the development of ultra-heavy crude in the Orinoco Basin, as well as the exploration and exploitation of oil in other areas and the development of the Venezuelan gas industry. There are also plans to form a joint company (Chino Venezolana de Taladros) that would

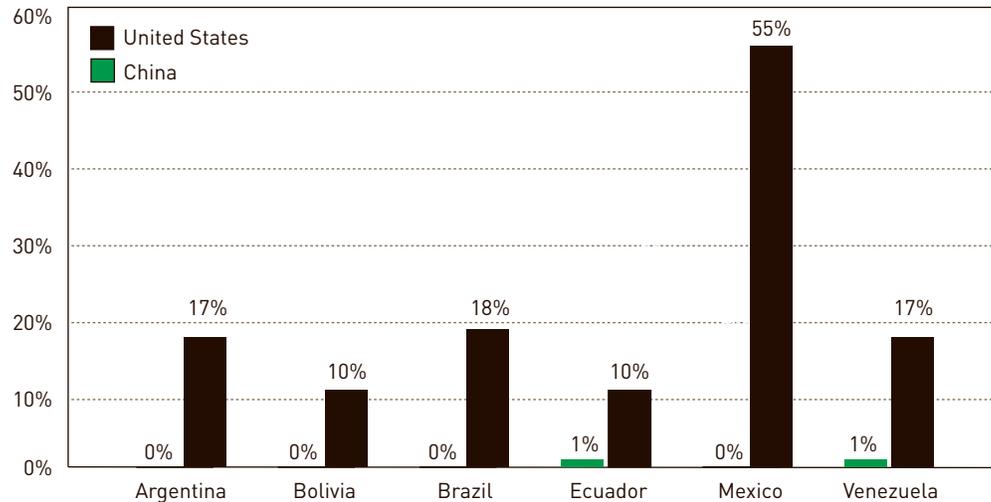
Figure 8. Chinese FDI Stock in the World, 2010*



* Of a total of US\$317.219 billion.

Source: Ministry of Commerce of China, 2010 Statistical Bulletin of China's Outward Foreign Direct Investment.

Figure 9. Chinese and US FDI as a Percentage of Total FDI in Each Country



Source: Chinese FDI data from the Ministry of Commerce of China, 2010 Statistical Bulletin of China's Outward Foreign Direct Investment. US FDI and world totals from UNCTAD FDI/TNC database.

develop petrochemicals, construct refineries in China to increase refining capacity to 800,000 bpd, and build 18 vessels in a Chinese shipyard to transport oil to world markets, especially in Asia.

In Ecuador, CNPC has invested in the Lumbaqui Oil Co., which manages oil ventures in the Amazon. The Chinese national oil companies (NOCs) CNPC and Sinopec own both Andes Petroleum and PetroOriental. Andes Petroleum has also bought rights to the exploitation of oil and to the oil and gas pipelines that were formerly owned by the Canadian company Encana.

In Argentina, the China National Offshore Oil Corporation (CNOOC) is an equal-share partner with Bidas Energy, the country's leading producer of oil and gas. Sinopec, in turn, purchased Occidental Petroleum, which controls substantial reserves in the provinces of Mendoza and Santa Cruz.

In Cuba, CNOOC bought 30 percent of Repsol-YPF shares in various oil and gas fields in 2005, and in 2007 the same company discovered modest amounts of oil and gas in the Cojimar fields. In 2010 CNPC made a commitment to finance part of the expansion of the oil refinery owned by the PDVSA and the state-owned Cuban company Cupet.

Examining the share of Chinese FDI in the main recipient countries in Latin America reveals the small scale of Chinese investment in the region. Venezuela has the highest relative share of Chinese investment, at just 1.3 percent of total FDI in the country. In Brazil, Mexico, Bolivia and Argentina the share is less than 1 percent. Compared to US FDI in the region, Chinese investment remains largely insignificant.¹⁰

The total amount of FDI received by China from the rest of the world is considerable. In 2009, FDI in China comprised 8.5 percent of the world total, of which Latin America and the Caribbean accounted for a quarter. As with outflows from China, however, investment in China from 2007 to 2008 can be sourced to a few destinations: the British Virgin Islands (80 percent), the Cayman Islands (14 percent) and Barbados (5 percent). Together, these three account for almost 99 percent of Latin American investments in China.¹¹ Given the

¹⁰ It is worth noting that figures from the Chinese Ministry of Commerce and the UNCTAD FDI/TNC database coincide with the exception of FDI in Venezuela, where UNCTAD FDI/TNC does not show 1.3 percent but of 4.3 percent. The difference stems from the fact that the former source does not consider oil-backed loans as FDI, while the latter source does.

¹¹ Rosales and Kuwayama, pp. 28–31, on the basis of data from the Office of National Statistics of China.

Table 5. Chinese FDI Stock in Latin America (US\$ millions)*

	2004	2005	2006	2007	2008	2009	2010
Total stock	8,000	11,000	20,000	25,000	32,000	31,000	44,000

* It is important to keep in mind that over 90 percent of FDI flows go to tax havens such as the Cayman Islands and the Virgin Islands.

Source: Ministry of Commerce of China, 2010 Statistical Bulletin of China's Outward Foreign Direct Investment.

difficulty of tracing the origin of the funds from these sources, it is reasonable to question the extent to which they are actually Latin American investments.

For both outflows and inflows of Chinese FDI, Hong Kong, the British Virgin Islands and the Cayman Islands are first, second and third in importance, respectively. All three ensure confidentiality for investors, which arouses suspicion that at least some of these flows are associated with illegal and even corrupt activities, such as tax evasion and illegal earnings from public companies whose funds have been “privatized.”¹² Finally, many of the resources sent to these territories are then returned to China as FDI. This allows investors to secure all the guarantees and benefits that the Chinese government grants to foreign companies while using capital that was originally Chinese.

Identifying the proportion of Chinese investments destined for the energy sector is not straightforward, given the lack of reliable data, the level of disaggregation of the available statistics (often data are not at a country level but at a regional level, or sometimes they are only country totals that do not distinguish between productive sectors), and the fact that often the data reflect announcements made by governments, which are often overstated for publicity purposes. One clear trend is that Asia-Pacific investments in energy are concentrated in two countries, Brazil (38 percent) and Mexico (28 percent), while the next three countries (Chile, Argentina and Colombia) each account for about 6 percent.¹³ A study on Chinese investments in Latin America shows that almost three-quarters of Chinese investments in the region in 2005–2010 went to the energy sector, another quarter to the mining sector, and just 1

percent to agriculture. The accuracy of these figures, however, is questionable.¹⁴

If economic relations between countries are essentially based on trade and investment, then the relationship between China and Latin America is unbalanced. Commercial relations are very strong, but investment flows remain weak. This is reflected in the conclusions of a study by the Inter-American Development Bank and the Asian Development Bank cited above, which finds that Chinese FDI (not including transactions with Caribbean tax havens) accounts for barely 1 percent of total FDI in Latin America; the figures for trade are 11 times higher. Given historical trends, however, it is reasonable to believe that this gap between investment and trade will narrow over time.

How much should Chinese investment in Latin America be expected to grow during the next few decades? The answer to this question is highly speculative. One might look to public announcements made by Chinese authorities for clues in this regard. For instance, in 2004 former president Hu Jintao announced that China would invest tens of billions in Latin America during the next 10 years. Actual FDI during that period was far below the promised amount. It is interesting to note, however, that Chinese FDI stock in Latin America and the Caribbean between 2004 and 2010 grew by a factor of more than five.

Another approach is to look at the stock of FDI that other countries have accumulated in the region. Naturally, they reflect very different circumstances. For example, the United States has been an active player in the region for more than a century, while Japan began making investments in the 1970s, and Spain and Canada in the 1980s.

Even if China's current stock of FDI increased by three or four times, it would still only reach the levels of Canada or Spain. The notion that an avalanche of Chinese investment is taking over the region is an exaggeration that, to date at least, is unsupported by the facts.

¹² On this subject, see also Randall Morck, Bernard Yeung and Minyuan Zhao, “Perspectives on China Direct Investment,” *Journal of International Business Studies*. 2008.

¹³ Asian Development Bank and Inter-American Development Bank, *Shaping the Future of the Asia and the Pacific-Latin America and the Caribbean Relationship*. 2012.

¹⁴ Sino-Latin Capital Analysis. Presentation, “Why China and Latin America?” The Heritage Foundation. May 2011.

Chinese investment in Latin America could expand substantially. The region has enormous endowments of natural resources and Chinese demand shows no sign of stopping soon. The real barriers to investment growth lie elsewhere. Some are the responsibility of Latin American governments, while others are a direct result of Chinese firms' practices in the region.

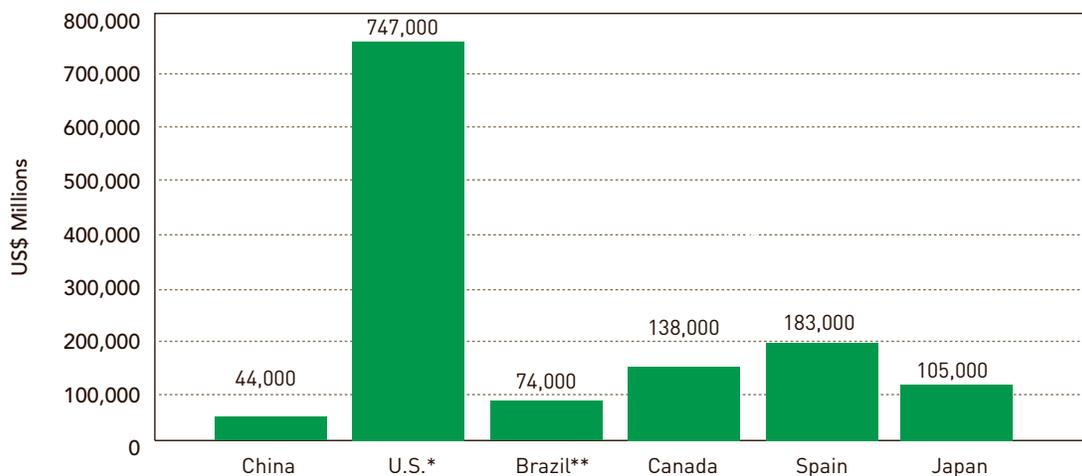
The Latin American energy sector has significant barriers to entry. The sector is generally highly concentrated in the hands of national oil companies, the result of a wave of nationalization of natural resources that swept through the region in the 1970s and 1980s. In Mexico, FDI in oil and gas was prohibited by the constitution until very recently. Brazilian regulatory frameworks, especially those governing new pre-salt fields, have become stricter, discouraging foreign investment. The Correa administration in Ecuador has forced foreign companies to replace their participation contracts with service contracts. Even Venezuela, despite Hugo Chávez's constant wooing of Chinese capital, has demanded that investors partner with PDVSA.

In some Latin American countries, moreover, FDI is discouraged by deficient rule of law, weak judicial systems whose power is often subordinate to the executive branch, and rejection of international arbitration mechanisms

Chinese FDI in Latin America is very limited and indeed, once we exclude the British Virgin Islands and the Cayman Islands, it is irrelevant.

in trade and investment (as happened in Ecuador and Venezuela). It is likely that Chinese funds have entered the region as oil-backed loans because the foregoing conditions make FDI unfeasible. FDI will be more appealing in economies where investments in the oil sector are associated with high-tech companies, which provide the opportunity to access new and improved technologies, as is the case with Petrobras and its deep and ultra-deep water projects off the coast of Brazil.

Figure 10. FDI Stock in Latin America and the Caribbean



* Data for the United States are from the US Department of Commerce, Bureau of Economic Analysis online.
 ** Brazil's FDI does not consider investment from Brazil into Brazil, which makes the figure lower than expected.
 Source: Data for 2010. Coordinated Direct Investment Survey, IMF and UNCTAD FDI/TNC database.

The way that Chinese investors do business has also played an important role in moderating the growth of FDI in the region. In a meeting organized by the Inter-American Dialogue in March 2013, various participants pointed out that investments are complicated by the fact that “at least eight state bureaucracies, regional Banks, state financial institutions, NOCs, and even the country’s shipping companies all have a hand in shaping China’s international energy activities.”¹⁵ In this sense, China’s energy strategy is based on “fragmented principles and pluralized agents” forming a complex mix of “state-led oil diplomacy, bank-led commodity-backed lending, and equity investment on the part of Chinese government and corporate entities.”

China’s behavior in developing countries has been criticized frequently for a lack of respect for international environmental, social and corporate governance standards.

Chinese investors are viewed with caution, having earned a dubious reputation following “a great deal of criticism for their actions in the mining and oil industry in both Africa and Latin America,”¹⁶ especially as regards projects in Sudan, Zimbabwe and Algeria.¹⁷ Other scholars have noted that “the literature on Chinese FDI in African natural resources... shows that it has resulted in extremely low

pay, hazardous work environments, and local corruption.”¹⁸ Concerns have also been raised about investments in oil and gas transportation, and in mineral production in Myanmar.¹⁹ Brazil’s former president, Luiz Inácio Lula da Silva, has questioned China’s projects in Africa, noting that Chinese investors “bring all these Chinese people to work in their mines, and that does not create opportunities for work in that country.” China’s behavior in developing countries has also been criticized frequently for a lack of respect for international corporate governance standards, such as those contained in the OECD Anti-Bribery Convention, which includes the US Corrupt Practices Act. Chinese investors have also drawn negative attention for ignoring environmental norms that are increasingly considered best practices for international companies, even if they are not explicitly recognized in the recipient country’s legal framework.²⁰

Chinese investment could undoubtedly have positive effects on Latin America’s natural resource sector by providing much-needed funding and fostering competition from diverse markets, which would lessen Latin America’s dependence on countries like the United States. In order for these effects to materialize, however, Chinese firms have to overcome the problems mentioned above: corruption, weak labor practices, little social responsibility and poor environmental standards. Fortunately, it seems that steps are being taken to address these concerns. For instance, the State-Owned Assets Supervision and Administration Commission (SASAC) has been pressuring firms to keep up with international standards and to pay closer attention to environmental and social issues. In August 2007, moreover, the China Ex-Im Bank demanded that all projects presented must comply with the social and environmental policies of the countries where the projects would be undertaken.

¹⁵ Inter-American Dialogue, “China and Latin American Energy Meeting.” Rapporteur’s Report. March 21, 2013.

¹⁶ Ariel C. Armony and Julia C. Strauss; “From Going Out to Arriving In: Constructing a New Field of Inquiry in China-Latin America Interactions,” *The China Quarterly*. March 2012. Armony and Strauss discuss whether such conduct stems from the late entry of Chinese firms into global capitalism, which has led them to take part in marginal, risky oil concessions with more fragile and precarious political and environmental frameworks, rather than in the better oil and mining concessions that are already in the hands of large western companies.

¹⁷ Rubén González-Vicente, “Development and Engagement in South America’s Resource Sector: Is China Replicating the African Experience?” Working Paper 30. Hong Kong University of Science and Technology, Center on China’s Transnational Relations. November 2009.

¹⁸ Barbara Kotschwar, Theodore Moran and Julia Muir; “Chinese Investment in Latin American Resources: The Good, the Bad and the Ugly,” Working Paper Series. Peterson Institute for International Economics February 2012.

¹⁹ Theodore H. Moran; “China’s Strategy to Secure Natural Resources: Risk, Dangers and Opportunities,” In Brief. Peterson Institute for International Economics. July 2012.

²⁰ Kotschwar, *ibid.*

The notion that negative Chinese experiences in Africa could easily, or inevitably, be replicated in Latin America is likely erroneous.²¹ China's non-interventionist political approach allows it to harmonize equally well with dictatorships, common in Africa, and democracies, predominant in Latin America—even though they may be weak in some countries. Furthermore, as noted by González-Vicente, the role of civilians, unions and indigenous communities is stronger in Latin America than in Africa. This would constrain many of the controversial practices seen in Africa that have raised so many suspicions about Chinese projects.

Latin American companies fear displacement by their Asian competitors, given that the latter are often more efficient and have lower labor costs (even though these costs are tending to level out). Such opposition from special interest groups will be stronger in those economies in which the export sectors are most similar to Asia's. For example, Chinese investments are more a cause for concern in Mexico, given that the two countries compete in the manufacturing and textile industries. They have aroused less concern in countries such as Chile, which exports fruit, fish, copper and wine to China and imports from it clothing, shoes, plastics, toys and machinery.

Several factors motivate Chinese investments in the energy sector. One consideration is national security—the state must ensure energy security as a national policy. Other factors include the quest for higher earnings and greater market participation by the country's NOCs. These two forces raise an important question: what happens when the interests of the NOCs clash with political objectives defined by the state? One common response is that NOCs are subordinate to the power of the state and thus this conflict does not arise. Studies have shown the opposite, however: that foreign investments are motivated more by commercial gains than by political instructions, making it “increasingly hard for the central government to force NOCs to engage in deals without considering their economic gains and market concerns... Although the state has both market interests and security interests in venturing abroad, profit is the most

important, if not the only, factor motivating NOCs' investment decisions.”²²

It is also worth noting that the US shale revolution has prompted many US companies to sell assets abroad in order to focus on production at home. China has been a big buyer

Although the state has both market interests and security interests, foreign investments by China's NOCs are motivated more by commercial gains than by political instructions.

of these assets, such as Apache's recent sale of 33 percent of its shares in Egyptian Petrol to SINOPEC for US\$3.1 billion. It is also expected that PetroChina will buy ExxonMobil's shares in the West Qurna plant in Iraq.

According to Erica Downs at the Brookings Institution, China is directing a large part of its FDI to North America. She estimates that it has poured about US\$8.5 billion into non-conventional oil and gas projects since 2010. This culminated in CNOOC's US\$18 billion purchase of Nexen, a company that owns large shale gas and oil reserves. This could be part of a new approach by Chinese NOCs to replicate the strategies of companies like Petrobras and Statoil, both of which have invested in more technically complex projects.²³

V. Oil-Backed Loans

China has pursued an aggressive commodity-backed loan strategy since 2005. The astounding size of these loans has sparked speculation and debate, not only in Latin American countries—to which most of these loans are granted—but also in the United States and OECD countries.

The main instrument used to implement this strategy has been the China Development Bank (CDB). The latter

²¹ González-Vicente; *op. cit.*

²² Chih-shian Liou, “Bureaucratic Politics and Overseas Investment by Chinese State-Owned Oil Companies,” *Asian Survey*, July–August 2009.

²³ Guy Chazan, “China takes the lead in M&A oil activity,” *Financial Times*, 8 September 2013.

was initially created to develop internal production and has since assumed an increasingly important role in granting international loans, thereby supporting the “going out strategy.” Another main actor is the China Export-Import Bank (CHEXIM). The total amount of loans granted by these institutions reached about US\$85 billion in 2011. The main recipients were Russia, Turkmenistan and four South American countries: Venezuela, Brazil, Argentina and Ecuador. In 2010, loans to Latin America amounted to US\$37 billion—more than the sum of the loans provided in the same period by the World Bank, the Inter-American Development Bank and the US Export-Import Bank.²⁴

Table 6. Number and Size of Chinese Loans to Latin America

Recipient Country	Number of Loans	Amount US\$ Thousand
Venezuela	10	44,500
Brazil	5	12,100
Argentina	4	11,800
Ecuador	8	9,300
Bahamas	3	2,500
Peru	4	2,300
Mexico	1	1,000
Jamaica	6	662
Bolivia	3	611
Costa Rica	1	300
Chile	1	150
Guyana	1	130
Colombia	1	75
Uruguay	1	10
TOTAL	49	85,438

Source: Inter-American Dialogue, China-Latin America Finance database.

Table 6 shows that 91 percent of the loans have gone to four countries (Venezuela, Brazil, Argentina and Ecuador), and roughly half of them (52 percent) to Venezuela alone. About two-thirds of these are oil-backed loans. This paper focuses on this particular type of loan, which is an important element of energy relations between China and Latin America.

²⁴ Kevin Gallagher, Amos Irwin and Katherine Koleski, “The New Banks in Town: Chinese Finance in Latin America.” Inter-American Dialogue, March 2012.

It would be an overreach to assume that these loans are part of a centrally planned strategy by the Chinese government to guarantee energy security. It is far more reasonable to view them as a set of transactions undertaken by “multiple actors, pursuing multiple interests, including profitability,”²⁵ where business interests sometimes come first.

In general terms, these loans share some defining characteristics: (i) they are large, at up to US\$20 billion; (ii) they are granted for long periods, some of them up to 20 years; (iii) they are processed faster than similar loans granted by international banks, with the period from negotiations to the granting of the loan taking as little as two years or less; and (iv) they have been extended at a time when financial markets were unwilling to lend to those countries on those terms, with the exception of Brazil.²⁶

China’s oil-backed loans have been subject to significant criticism. One such is that they are guaranteed by a quantity (in barrels of oil) rather than by price, which could make them very expensive if oil prices rise steeply. Additionally, they have been criticized for having excessively low interest rates. According to the US Ex-Im Bank, China is using low-interest loans to make its exports more attractive than similar loans granted by Western banks and multilateral organizations. It is also tying the loans to the purchase of products, inputs and technology (which could raise production costs) and granting loans that are not subject to environmental and social conditions. These practices breach OECD norms on the use of financing as a tool to raise competitiveness.

One of the most in-depth studies on the subject debunks the first criticism, concluding that “the majority of Chinese loans-for-oil in Latin America are linked to market prices, not quantities of oil.”²⁷ This means that the lender will receive the amount of oil corresponding to the daily spot market prices, so the agreements are made in terms of “nominal quantities of oil” based on current market conditions. Given these considerations, it seems clear that China’s main interest is not to use these loans as a means to gain

²⁵ Erica Downs, “China Development Bank’s Oil Loans. Pursuing Policy and Profit,” *China Economic Quarterly*, December 2011.

²⁶ Erica Downs, “Inside China, Inc: China Development Bank’s Cross Border Energy Deals.” China Center at Brookings, March 2011. See also Erica Downs, “China Development Bank’s Oil Loans: Pursuing Policy and Profit,” *China Quarterly*, December 2011. The studies by Downs, and by Gallagher, Irwin and Koleski, are of exceptional value and their data and analysis underpin a substantial part of this study.

²⁷ Gallagher et al., *op. cit.*

Table 7. Chinese Oil-Backed Loans in LAC

Year	Recipient Country	Recipient	Lender	Amount (US\$ Thousand)	Purpose
2008	Venezuela	BANDES and PDVSA	CBD	4,000	Infrastructure, other projects
2009	Brazil	Petrobras	CBD	10,000	Pre-salt technology
2009	Ecuador	Petroecuador	PetroChina	1,000	Forward payment for oil
2009	Venezuela	BANDES and PDVSA	CBD	4,000	Infrastructure, satellite
2010	Ecuador	Petroecuador	CBD	1,000	80% discretionary, 20% oil-related
2010	Venezuela	BANDES and PDVSA	CBD	20,000	Infrastructure
2011	Ecuador	Government	CBD	2,000	70% discretionary, 30% oil-related
2011	Venezuela	PDVSA	CBD	4,000	Infrastructure
2011	Venezuela	PDVSA	ICBC	4,000	Housing

Source: Kevin Gallagher, Amos Irwin and Katherine Koleski (2012). "The New Banks In Town: Chinese Finance in Latin America," Inter-American Dialogue Report.

access to cheaper oil, but rather to use them as a way of establishing new and long-term oil supply chains. These loans also put the country's vast dollar reserves to productive use and can even improve Beijing's relations with recipient governments.

The loans' interest rates have been criticized for being lower than those offered by organizations such as the Inter-American Development Bank, the World Bank and other Western financial institutions. A more thorough investigation of the allegations reveals that this is not really a matter of varying interest rates, but rather of different kinds of loans. Once we exclude Brazil, which fought vehemently against oil guarantees,²⁸ we see that the loans are granted to Ecuador and Venezuela—two countries that are severely credit constrained. In this sense, as Tissot argues, these loans have been used as a last resort.²⁹ They have two distinguishing characteristics: first, the oil guarantee significantly lowers the risks involved; and second, this lower risk leads to interest rates that are lower than the spread of each country. For instance, the US\$20.6 billion loan to Venezuela was agreed upon a floating rate between 50 and 285 basis points over Libor, a fraction of the 1,044 basis points registered by Venezuelan sovereign bonds that same year. The rate for Ecuador was 690 basis points over Libor, which

is considerably lower than the 913 points registered by its bonds that year.³⁰

Another controversial aspect of Chinese lending is that the loans are sometimes tied to the purchase of services, equipment and goods from China. Such was the case with a US\$10 billion loan to Argentina, which was not oil-backed but entailed the purchase of Chinese railroad equipment. In the case of oil-backed loans, the situation varies greatly across the three countries—Brazil, Venezuela and Ecuador.

Brazil's loan was to finance an ambitious investment project by Petrobras. Of the total US\$10 billion, US\$3 billion were tied to the purchase of Chinese machinery for oil exploitation. Since the measure infringed a Brazilian policy favoring national companies in the exploitation of pre-salt fields, this condition spurred substantial controversy in the country.

Excluding a US\$1 billion 2009 loan from PetroChina that was an advance payment, Chinese loans to Ecuador were granted directly to the Ministry of Finance, mainly for discretionary spending. In fact, 80 percent of Ecuador's US\$1 billion loan from 2010 and 70 percent of its US\$2 billion loan from 2011 were for discretionary use by the government. The remaining 20 and 30 percent, respectively, were designated for oil sector investment. The 2010 loan also established that 20 percent of the loan had to be spent on the purchase of Chinese services and products.

China's loans to Venezuela merit further investigation, though analysis here is complicated by a lack of transparency.

²⁸ Downs, *op. cit.*

²⁹ Roger Tissot in "How Is China Changing Latin America's Energy Sector?" *Latin America Advisor*. July 22, 2011.

³⁰ CEPAL, Balance Preliminar de las Economías de América Latina y el Caribe, 2012.

The first two loans, granted in 2008 and 2009 for US\$4 billion each, were designated to the “China-Venezuela Joint Investment Fund (JIF)”, which would be administered by BANDES (the total fund consisted of US\$8 billion in CDB loans and US\$4 billion provided by the Venezuelan government through FONDEN). The fund was created to finance several infrastructure projects, including the Simón Bolívar

Many Chinese loans to countries affected by inefficiency and underinvestment were not used to explore and develop oil resources.

satellite, the Gran Mariscal de Ayacucho highway, a railway connecting Cúa to Encrucijada, and five subway lines—two to be built in Caracas and the others in Los Teques, Valencia and Maracaibo.

The US\$20.6 billion granted to Venezuela in 2010 is the largest loan ever given by the CDB and it is not administered in the same way as the JIF loans. The purpose of the loan is to finance infrastructure projects, social development, energy, mining and agriculture. The contract establishes that 70 percent of the total must be spent on Chinese manufacturing and services, and thus half of the amount was denominated in dollars and the other half in renminbi. Services tied to the contract included the construction of a housing project by China’s state-owned CITIC Group and the purchase of Chinese domestic appliances for the implementation of social programs.

Another source of criticism is that the loans are not subject to any form of social, political or environmental conditions, unlike loans from the Inter-American Development Bank, the World Bank and other Western financial institutions. International institutions require conditions that ensure the transparency and efficiency of the loans provided, preventing corruption and ensuring good environmental and social practices. China’s policies have supporters and opponents.³¹ Some argue that the lack of requirements in these loans is a setback to internationally accepted environmental, social and corporate governance norms. Efforts have been made to

establish a correlation between oil-backed loans and the levels of transparency and corruption in Latin American recipient countries. Some therefore argue that “the more dependent a government is on non-transparent sources of revenue”, the more incentives it will have to accept an oil-backed loan, “since China has no interest in monitoring the impact of its investments and loans, as long as it receives products.”³²

Others consider this absence of conditions a virtue. China’s commitment to abide by the principles of non-interventionism and respect for national governments means avoiding the political pressure imposed by institutions like the World Bank on some Latin American countries. In the past five years, Chinese banks have also begun

to include principles of respect for the environment in their loans. This is progress, although still far from the conditions set by their western counterparts.

The number of oil-backed loans has grown rapidly in recent years but it is unlikely that this pace can continue. It is even possible that the mechanism has been exhausted. The main appeal of these loans is that they go to countries that face credit constraints elsewhere, as evidenced by the spreads on their bonds. Yet these loans—which were ostensibly given to state-owned oil companies in countries affected by inefficiency and underinvestment—were in fact not used to explore and develop oil resources. Instead, in Ecuador, 70 to 80 percent of the loans went to the Ministry of Finance for its free use as discretionary funding for the government. Similarly, in Venezuela, most of the funds went to finance social projects and only a small portion went to PDVSA.

It has been common in Latin America for governments to indebt healthy state-owned enterprises—or at least those with high revenues from natural resource production, such as oil—in order to finance current spending or clientelist policies. This is generally, though not exclusively, the case in countries ruled by populist governments. Furthermore, the idea that oil-backed loans are less risky than normal loans is valid only to a certain extent. Once loans become too large, the credit risk could be high and default could even

³¹ As pointed out by Gallagher et al., *op. cit.*

³² David Mares, “The Rise of China and Its Energy Implications. China’s Investment in Latin America Energy Resources: Comparative Asian Perspectives.” James Baker III Institute for Public Policy, pp. 37–39.

be a possibility, given the dwindling exportable surpluses of many Latin American NOCs. China's US\$20.6 billion loan to Venezuela, for example, is larger than the country's total bond issues during the four years between 2008 and 2011, and is equivalent to a fifth of the country's gross foreign debt. In Ecuador, the US\$3 billion in Chinese loans between 2010 and 2011 is also equivalent to a fifth of the country's gross foreign debt, and to total FDI received by Ecuador in the period 2007–2012.³³ Brazil is a distinct case, since its loan was not granted to ease credit constraints and does not present unreasonably high spreads.

VI. A Promising Opportunity and Challenging Implementation

China-Latin American energy relations pose a contradiction. The opportunities for cooperation seem promising, but to date the realization of those opportunities has been deficient and beset by ambiguities and missteps. If these problems are not corrected, the result could be an opportunity forgone, or only partially exploited.

China will require large quantities of oil, gas and coal to support its burgeoning economic growth. Latin America possesses significant endowments of energy resources, which could be exported to China. This opportunity will have even greater appeal as the United States moves toward energy self-sufficiency, forcing Latin American producers to look for new markets outside the Western Hemisphere, including China and Asia-Pacific. Given the prospect of substantial FDI from China, the country offers not only the possibility of new export markets but also of access to new sources of financing, which could help produce more balanced inter-American relationships. At the same time, while China and the United States might compete for the region's exportable surpluses, they must also collaborate in order to expand global energy production and avoid supply disruptions, price spirals and energy-related geopolitical conflicts.

In the oil trade, China-Latin America relations have become ever stronger and closer, to the point that if “in 2000 [oil] was practically negligible in Colombian, Ecuadorian and Venezuelan exports to China, in 2010 it became the largest export from those countries to China.”³⁴ Exports from Mexico and Brazil have also grown. The continued expansion of these exports will not be limited by a lack of Chinese demand, but rather by problems related to legislation, regulatory frameworks, and efficiency problems in Latin America's oil sector. This will be especially true for NOCs such as PDVSA, Pemex and PetroEcuador. The data indicate that exports have been falling rapidly in many Latin American countries, a problem that can only be addressed through significant reforms to the region's energy sectors.

The main purpose of this paper, however, is not to analyze the trade in raw materials but two other elements of economic relations: FDI and oil-backed loans.

Chinese FDI in Latin America is very limited and indeed, once we exclude the British Virgin Islands and the Cayman Islands, it is irrelevant. This runs counter to the common perception of a Chinese investment “invasion” in Latin

Of the three main avenues for energy relations between China and Latin America, only the trade in raw materials can be described as functioning properly.

America. Most of the FDI is in tax havens, which make it subject to suspicion and criticism. Chinese FDI could quadruple its current value and still only be comparable to Spain's FDI stock in the region.

Chinese FDI is hindered by some problems endemic to Latin America, such as a weak rule of law, the lack of reliable dispute-resolution mechanisms, and recent nationalizations of foreign companies in the energy sectors of Bolivia, Ecuador and Venezuela. Many countries have high barriers to entry in the industry, making it difficult for new players to appear.

³³ CEPAL, Balance Preliminar de la Economía de América Latina y el Caribe, 2012.

³⁴ CEPAL, Panorama de la Inserción Internacional de América Latina y el Caribe, 2011–2012.

There are also Chinese attitudes that generate distrust in Latin America, and that need to be overcome or at least improved if a more active exchange of capital is the goal. Some of the practices undertaken by Chinese NOCs in Africa have damaged China's image, and the fear of this experience being replicated in Latin America incites caution and wariness. Nonetheless, the differences between Latin American and African states (democracies in the former versus dictatorships in the latter), and the fact that civil society (unions and indigenous communities) plays a more active role in Latin America, makes a similar scenario less likely in the Western Hemisphere. It is also important to note that the Chinese government and its NOCs have recognized the severity of these concerns and have attempted to address them. Still, the central government has limited ability to enforce these changes, given that it depends on a range of agents that deal with Chinese foreign investments. All that said, it is vital that FDI, wherever it originates, meet the increasingly accepted international standards of transparency, prevention of corruption, environmental norms, labor rights, and respect for affected communities.

Oil-backed loans could continue to be a measure of last resort for countries that lack access to international credit because of their history of defaults (like Ecuador and Argentina) or that are rated as highly risky (Venezuela). With spreads of about 1,000 basis points, these countries simply do not have many alternative methods of financing.³⁵ However, given that they are facing nonexistent (Argentina) or diminishing exportable surpluses, and that a large share of current production is already committed to guaranteeing past loans (Ecuador and Venezuela), there is a natural limit to the use of this instrument. The other countries in the region do not need this kind of credit, since they can more readily access international capital markets.³⁶

Of the three main avenues for energy relations between China and Latin America, only the trade in raw materials can be described as functioning properly. Current FDI policies and oil-backed loans, on the other hand, must be thoroughly reviewed and adjusted given that, in their current form, they are rife with problems and may have exhausted their usefulness.

³⁵ In October 2012 the spreads for Argentina, Ecuador and Venezuela were 1,066, 824 and 926 basis points, respectively.

³⁶ For instance, Brazil, Chile, Colombia, Mexico, Panama and Peru have spreads of 158, 126, 122, 137, 138 and 118 basis points, respectively.



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**1211 Connecticut Avenue, NW, Suite 510
Washington, DC 20036**

**PHONE: 202-822-9002 ■ FAX: 202-822-9553
EMAIL: iad@thedialogue.org ■ WEB SITE: www.thedialogue.org**