

Chinese corporate globalization Influenced from the West, but practiced in the East



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Introduction

The global economy is undergoing a paradigm shift. The shift is from a Western-dominated economic model to one that is more complex and perhaps multi-polar. The centers of consumption, production and innovation are no longer concentrated solely in Western economies but are shifting to Asia, specifically China and India, as well as other emerging economies such as Brazil and Russia.

The Chinese economy showed resilience during the last economic crisis with gross domestic product (GDP) growth registering above 8 percent and eclipsing the Japanese economy as the second-largest economy behind the United States. Building on government initiatives during the last 11th Five-Year Plan (FYP), Chinese companies continue to expand cross-border operations through acquisitions of foreign assets, as further prescribed in the 12th FYP. Although allowing for inbound investment in specific sectors, the 12th FYP aims to create a more investor-friendly regulatory environment for outbound investments and to support key industries, such as energy, technology and banking. Moreover, the 12th FYP articulates a theme of “inclusive growth,” emphasizing economic growth balanced with sustainability and social responsibility in domestic and international activities. China’s approach to economic growth and its rising influence in the global market produces an emerging Eastern dimension to globalization where the motivation of profit maximization is balanced with national objectives, social responsibility and efficiencies.

Clarifying this shifting dynamic in the global economy sets the analytical context to define and assess emerging best practices that Chinese companies use to globalize. There appear to be fundamental differences between Western and Eastern, particularly Chinese, corporate approaches to globalizing. With respect to China, the term “globalizers” refers to any company that is intent on increasing their operations into global markets by developing a globalization strategy that enables the adoption and execution of international best practices, combined with global efficiency standards with government policy and socially-driven directives that have not been seen in previous industrialized economies. More specific factors that support this assertion of a difference between traditional Western-originated globalization and newer, emerging Eastern or Chinese globalization parameters are detailed overleaf.



Current Western-influenced vs. Chinese-influenced approaches to Corporate Globalization

Topic	Western-influenced	Chinese-influenced
Economic culture and role of the state	<ul style="list-style-type: none"> • Liberal capitalist culture – top priority is maximizing shareholder value. • No significant involvement by SOEs, even in formerly state-dominated industries (e.g., telecommunications). 	<ul style="list-style-type: none"> • Planned economy culture – top priorities are satisfying Central Government requirements, including security concerns, while gaining profits. • SOEs still dominate strategic sectors.
Enterprise strategic decision-making	<ul style="list-style-type: none"> • Primarily determined within an organization by top management and overseen by independent directors. 	<ul style="list-style-type: none"> • Determined in the intersection of central/local government and enterprise commercial interests. • Framed by design and language of Five-Year Plan.
Global expansion	<ul style="list-style-type: none"> • Through innovation and cross-border operational / financial integration. • Fully dependent on commercial resources for financial support. 	<ul style="list-style-type: none"> • Through capital investment and minority stake acquisitions with limited integration. • High level of flexibility in getting government financial and regulatory support.
Acquisition strategies and priorities	<ul style="list-style-type: none"> • Strong tendency to consolidate and integrate acquisitions for economies of scale, market share and other cost savings. • Strong at horizontal alliances and focused on core competencies. • Technology and product innovation are key drivers of growth and acquisition strategy. • Significant experience in post-deal integration and use of professional services firms for support. • Learning by doing and training. 	<ul style="list-style-type: none"> • Strong tendency to leave acquired entities intact, potentially relocating some production facilities to lower cost areas. • Strong at vertical control structures, and focused on diversification and broadening value chain positioning. • Gaining control of and access to resources, new product lines and brands are key drivers of growth and acquisition strategy. • Limited experience in post-deal integration and use of professional services firms for support. • Gaining experience by buying.

Although China's growth is shifting the economic balance of power and major Chinese companies are expanding globally, there are other macro factors forcing an evolution in Chinese globalization strategies. The world economy has grown increasingly complex and interconnected, and a globalizing company must respond to multiple stakeholders, not just shareholders and customers. There is greater emphasis on resource sustainability; advancements in technology are more innovative and disruptive; the mobility of people requires dynamic talent management; and, more porous borders are intensifying competition as consumers become less brand loyal. Additionally, the focus on strategic and national resources forces higher sensitivity to more invasive regulatory frameworks and more active political interventions, all of which ultimately requires new business models and processes.

This new business environment gives Chinese companies opportunities to participate in the global economy beyond low-cost manufacturing, exporting low-cost products and buying equity positions in various assets around the world. However, with these globalization opportunities come challenges. Chinese companies will not only have to integrate with international best practices but also differentiate themselves by creating unique practices accommodating their governmental framework, corporate culture, regulatory features and planned economic growth model dictated by the Chinese government. This is tied to the Chinese government's effort to maintain a harmonious environment while balancing growth with social equality and individual excellence, more specifically described in the 12th FYP as inclusive growth.

How do the Chinese companies intend to balance their government's quest for globalization with corporate operational efficiency, and gradual operational and financial control of their assets around the world?

We believe it is a uniquely Chinese trait that lends them the ability to mix the yin and the yang of integrating into and differentiating from global practices. By integrating (yin) while differentiating (yang), Chinese companies will emerge as the stewards of a new globalization framework that will be a best fit for them. By borrowing the internationally recognized Chinese symbol of yin-yang to describe this new globalization balancing act, the diagram below details the parameters of this Eastern approach to globalization.

Understanding the fundamental differences between the Western approach and the Eastern, particularly Chinese, approach to corporate globalization strategies will allow engagement with the Chinese business community. Beginning with this analytical context will facilitate effective identification of emerging practices for globalization that are unique to Chinese companies and are reflective of the shifting global business environment. As these practices mature and gain greater acceptance they will become "best practices".

To further elucidate how Chinese companies approach globalization differently, the next section identifies four corporate globalization topics and highlights opportunities for Chinese companies to integrate with and differentiate from global practices as they expand their operations abroad. These four topics also serve as a proposed framework for best practices.

Integration and differentiation: A Chinese approach to globalizing

The current success of Chinese companies operating globally is evident when measuring their global revenue and success: 46 Chinese companies are on the Fortune Global 500 list and financial participation in 5 major equity markets: New York, London, Hong Kong, Singapore and Germany. However, the relative weakness of Chinese companies' global brand equity and limited majority-controlled operating footprint present challenges to achieving an operational global scale.

Dimensions of the evolving Chinese corporate globalization

Integration with global practices

- Adoption of international regulations and global standard operating procedures
- Managerial and operational excellence among international staff across borders
- Global talent mobility and development
- Financial integration



Differentiation from global practices

- Clarification, variation, articulation of the unique commercial and regulatory features supporting the planned growth model
- Building a differentiated and global company brand, and competing on product/service
- Developing operational strategies to fit government policies
- Adapting global best practices

As the 12th FYP emphasizes the strategic need for Chinese companies to move up the value chain by gaining access to research & development, strategic sales and channel networks, and building global brands, it is only a matter of time before Chinese 'globalizers' achieve global operational scale.

To further demonstrate this point, four broad segments were selected for further research and analysis:

- Global expansion strategy.
- Risk management and corporate governance.
- Talent development and management.
- Products and services innovation.

Global expansion strategy

Growth through international mergers and acquisitions (M&A) has been the primary vehicle for Chinese companies to globalize. Some of the largest international M&A transactions in the past several years have been by Chinese companies such as Geely's US\$1.8 billion of Volvo in 2010 and Sinopec's US\$8.8 billion acquisition of Addax Petroleum in 2009.

Integration: Chinese companies and other state-owned enterprises (SOEs) lack depth and breadth of strategic relationships with international stakeholders. Strategic public relations can help mitigate risk to M&A transactions and other growth strategies and help bolster brand perception of Chinese companies.

Differentiation: The Chinese M&A approach is gradual, beginning with minority stakes or assets that allow risk-limited learning of foreign markets and operations. Strong relationships with the Chinese government are an operational imperative for Chinese companies, providing capital and other resources. Maintaining these relationships while mitigating negative perceptions of too-close government relations gives Chinese companies a market advantage.

Case example: Huawei's bid for a minority stake in 3Com was unsuccessful largely due to a lack of strategic public relations and an in-house spokesperson. Since then, Huawei has employed a cadre of spokespeople around the world to provide timely responses to various issues, such as the recent U.S. criticism of its relationship with the Chinese government. Similar international public relations risks impacted CNOOC's 2005 bid for Unocal, and hampering Xinjiang Goldwind's current push into the U.S. market.

Risk management and corporate governance

Chinese companies across industries have little experience dealing with foreign legal environments and local compliance requirements related to labor regulations, trade, environment and financial disclosure. Chinese companies with a large portfolio of foreign assets are exposed to multiple global and local risks, requiring strong corporate governance and strategic risk management.

Integration: Operations standards, such as quality assurance and operational efficiency, are critical international practices for Chinese companies to adopt to actively manage risk. Capital market reforms will lead to more assets listed on markets requiring Chinese companies to comply with international commercial operating standards and public reporting requirements.

Differentiation: In comparison to Western companies, risks are absorbed differently by SOEs given their tight linkages with the Chinese government. Upcoming commodity price reforms will increase operating costs and impact SOE's profitability, pushing SOEs to improve operational efficiency and quality control, possibly leading to innovation.

Case example: The recent U.S. criticism that China's indigenous innovation policy and subsidies for wind technology represents unfair competition demonstrates how a domestic growth policy can become an international risk to manage.

Talent development and management

The Chinese business community has been openly discussing the challenges of internationalizing executive management talent, both expatriates thriving within the China market, and Chinese nationals excelling in operations abroad.

Integration: Typically, Chinese firms expanding internationally will maintain their internal control and limit operational intervention abroad. Unlike Western firms who have institutionalized practices of expatriate integration in foreign markets, Chinese firms typically do not move a critical mass of nationals abroad, with the exception of infrastructure and extractive resources projects. Chinese SOEs operating internationally adopt an internally-focused management model which is centralized at a high policy level, compartmentalized and relies heavily on outside management of their foreign assets. Opportunities exist for Chinese firms to internationalize talent.

Differentiation: Domestically, a Chinese management style is in its emergent phase and is often described as flexible, adaptable, and consensus-style. The resilience of Chinese companies and economy during the recent recession and high forecasted growth prospects indicate the viability of the Chinese management style. In some cases, adaptation of the Chinese management style in Western operations can be successful as described in the Lenovo case example below.

Case example: Lenovo's efforts to keep the U.S. management team in place after the IBM PC acquisition was reversed in 2009 with the return of the founder, Liu Chuanzhi, as Chairman. In response to Lenovo's declining sales, Liu replaced the top-down management approach with a consensus-based Executive Committee. The management changes have been credited for Lenovo's 44 percent rise in profit.

Products and services innovation

Driving innovation and competitiveness are highlighted as priorities in the 12th FYP for specific sectors. China's emergence as a dominant trading partner and numerous free trade agreements (FTAs) provide long-term market opportunity to develop and export value-added products and services.

Integration: For Chinese companies to capitalize on the FTAs, inbound investments and other market opportunities, it is paramount to resolve trade disputes, intellectual property conflicts, and issues with quality assurance.

Differentiation: For more than two decades, Chinese exports have performed strongly in world markets due to low-cost production. The Chinese government has been able to leverage its capital to develop high-technology sectors and has a planned investment RMB1.5 trillion (US\$229 billion) to support strategic sectors, positioning Chinese companies to drive innovation and globally competitive products.

Case example: Suntech is the world's leading solar photovoltaic (PV) manufacturer with production facilities in China and abroad. Build Your Dreams (BYD), a start-up Chinese automotive manufacturer, has been chosen to supply electric vehicles for the city of Los Angeles and several European cities.

The next sections of the report provide a review of the many M&A transactions involving Chinese SOEs in the oil & gas and mining sectors.

Oil & Gas



Chinese outbound oil & gas sector M&A activity surged over the first half of 2010, with eight transactions, worth a total of US\$11.6 billion being announced over the first six months of the year. Such deal volume equaled the number of transactions that were undertaken over the whole of 2009, and accounted for a larger cumulative investment – total 2009 outbound oil & gas M&A by value comprised just US\$10.9 billion. And with deal flows surging recently, it is perhaps unsurprising that a rise in valuations has followed. In fact, the average deal size over the first two quarters of 2010 stood at US\$1.4 billion – close to double the US\$795 million average deal size seen over the 2003-2009 period.

This shift in outbound Oil & Gas sector deal sizes is even more prevalent when looking at absolute deal size splits by volume over the years. Over H1 2010, exactly half of outbound acquisitions have been worth more than US\$500 million, the largest proportion witnessed since 2003. Over the same period, mid-market (<US\$500 million) transactions accounted for just 39% of all foreign purchases. Between 2003 and 2009, mid-market deals accounted for just under half (49%) of all overseas Oil & Gas sector buys.

Acquisitions of North American Oil & Gas sector targets have dominated overseas buys over the 2003 to H1 2010 period, numbering 17 deals with a combined value of US\$22.1 billion. This amounts to a 30% market share in terms of deal volume and a 43% stake by value. South East Asian assets have also proven popular, with a further eight transactions being announced over the same time frame. In addition, five overseas purchases each have taken in Africa, Central and Eastern Europe, Central Asia and South America.

Chinese corporates' desire to snap up North American firms seems to have taken greater hold of late, with 37% of all outbound deals over H1 2010 comprising buys of North American targets. The largest of these was undoubtedly the 9.03% stake acquisition of Syncrude Canada by Sinopec; but other notable transactions include the dual purchases undertaken by CIC, the Chinese sovereign wealth fund, of various assets belonging to Penn West, the Canadian Oil & Gas exploration and production company.

Between 2003 and H1 2010, Chinese bidders spent the bulk of their M&A war chests on North American targets, amounting to a total investment of US\$22.1 billion in the Oil & Gas sector assets. Furthermore, buyers have spent another US\$8.9 billion buying up targets based in Central and Eastern Europe, US\$5 billion in Africa, and US\$4 billion in Central Asia over the same period.

North American purchases rose over H1 2010 to account for more than half the total (51%) spent abroad while South American acquisitions made up more than one-quarter of total outbound M&A investments. Oil & Gas buys in Africa added another 21% of the whole.

The largest Oil & Gas sector acquisition undertaken abroad was Sinopec's US\$8.8 billion buy of Addax Petroleum, the Canadian oil & gas exploration and production (E&P) firm, announced in June 2009. Mitsubishi, the Japanese industrial giant, was initially rumored to be in the running for the asset, with the state-owned Korea National Oil Company and India's ONGC Videsh, the overseas division of the country's Oil and Natural Gas Corporation, also believed to have been interested in the target. Ultimately, Sinopec sealed the deal fairly quickly, with regulatory authorities across the globe all speedily giving Sinopec their endorsement to take over the firm.

The second-largest transaction saw China National Petroleum Corporation (CNPC), the Chinese state-owned petroleum company, teaming up with BP and Petronas, the UK and Malaysian oil giants respectively, to purchase a 7.6% stake in OAO Rosneft, the Russian oil & gas producer, from Rosneftegaz, the state-owned Russian investment holding company, for US\$5.3 billion back in Q3 2006. The deal saw CNPC invest US\$500 million in the acquisition vehicle, which was majority backed by an unnamed Russian investor.

The most notable oil & gas sector acquisition undertaken over the first half of 2010 was the previously-mentioned stake buy of Syncrude by Sinopec, for US\$4.65 billion. Next up, was CNOOC's US\$3.1 billion acquisition of a 50% interest in Bidas Corporation, the Argentinian oil & gas E&P firm in Q1 2010. The deal will see CNOOC expand its proven reserves and average daily production figures to 318 million barrels-of-oil-equivalent (boe) and 46,000 boe, respectively.

The third-largest acquisition was another Sinopec buy, and saw the company snap up a 55% stake in Sonagol Sinopec International (SSI), an Angolan-based E&P company for US\$2.5 billion in March 2010. Sinopec is presumably targeting SSI's 50% stake holding in Angola's oil block 18, which reportedly holds around 700 million boe in reserves. So far, 11 test wells have been drilled, eight of which have proven to be economically viable.

Mining



China outbound acquisitions of overseas mining assets have surged markedly in recent years, driven by robust economic activity and the need to import mineral resources to meet the region's growing appetite for raw inputs. Since 2003, there have been a total of 92 outbound mining acquisitions emanating from China, collectively valued at US\$31.97 billion. The pace of outbound mining M&A accelerated in 2006 with eight transactions together valued at US\$2.17 billion coming to market after meager activity in earlier years. This trend continued over 2007, 2008 and 2009, with transaction volumes rising by an annual average of more than 50% over these three years. In 2009, the trend in outbound mining transactions defied the wider downturn in global deal making, rising to its highest level ever, with 28 deals totaling US\$8.73 billion being announced.

M&A valuations for China-based acquisitions of foreign mining assets also rose over the period, buoyed by rising prices for hard commodities amid a trend of robust global demand. Emerging national champions within the region also had a greater willingness, as well as the financial clout, to ink big-ticket deals, which acted as a further spur to takeover activity in the higher-value segments of the deal market.

The largest such transaction saw Chinalco, a state-backed company and the largest aluminum producer in the Chinese market, team up with Alcoa, its U.S. competitor, to acquire a 12% stake in the Anglo-Australian mining giant Rio Tinto for a hefty US\$14 billion in January 2008. Meanwhile, the largest transaction in the first half of 2010 saw Hong Kong-based Honbridge Holdings acquire Brazil's Sul Americana de Metais (SAM) for a total consideration of US\$390 million from the Netherlands-based Lit Mining and Votorantim Novos Negócios, the private equity arm of the large Brazilian conglomerate Votorantim Group.

In terms of the regions targeted by Chinese firms, the Australasian market is dominant, accounting for exactly one-half of total outbound transactions in the mining space between 2003 and H1 2010. Over the same period, the deal value share of Australasia was 25%, below the 48% for Western Europe, which was bolstered by the aforementioned stake purchase in Rio Tinto. The mining giant is headquartered in the UK albeit with extensive operations in Australia.

It is precisely this heavy investment in the Australian market that clouds the outlook for future outbound mining deals flow. This uncertainty is chiefly due to Australia's controversial 'super tax' of 30% to be levied on profits from resources companies that exceed the 10-year government bond yield. The introduction of the tax, originally set at 40%, has been something of a political liability for the government with the August 2010 election poll returning Julia Gillard to power by the smallest margin in Australian political history. She will now have to work hard to rebuild her support, meaning that the imposition of the proposed tax could be delayed.

The tax may deter some investors from sourcing targets in the Australian market, but the long-term fundamentals in China point toward strong outbound acquisition activity in the medium and longer term. The appetite for raw materials and the need to secure supply lines for the rapidly expanding domestic market is simply too great for outbound mining deal flow in Australia to stagnate.

Aside from the aforementioned Chinalco/Alcoa acquisition, the largest outbound mining deal to have been undertaken over the past seven-and-a-half years was the US\$2.6 billion acquisition of Felix Resources, the Australian coal producer, by Yanzhou Coal Mining, the Chinese coal mining group, back in August 2009. The deal represented a discount of 14% to the target's share price one day prior to the deal announcement and also witnessed Felix Resources spin off its South Australian Coal Corporation, a 100% owned subsidiary, which ultimately listed on the Australian stock exchange.

One month before the Yanzhou Coal / Felix Resources transaction, the China Investment Corporation (CIC), through its acquisition vehicle Fullbloom Investment Corporation, acquired a 17.2% stake in Teck Resources, the debt-laden Canadian diversified mining and refining company, for a total of US\$1.5 billion. Fullbloom acquired the holding at a 6.9% discount to Teck's share price one day prior, yet paid a price for this apparent bargain. Fullbloom was required to hold the stake for at least 12 months and cannot sell if without Teck's consent. In addition, a standstill provision requires Fullbloom not to undertake certain actions, including acquiring additional shares in Teck, soliciting any extraordinary transactions involving Teck or seeking representation on Teck's board of directors. The target will use the proceeds to lighten its debt load.

Outbound mining deal flow over the first half of 2010 indicates that the pattern of trade has shifted somewhat compared to the larger picture. Indeed, the fact that the two largest outbound mining transactions of the period were buys by a South American and African company respectively, adds credence to this. First up was the previously-mentioned US\$390 million acquisition of SAM, the Brazilian iron exploration firm, by Honbridge Holdings, a Hong Kong-based firm engaged in the refining and trading of silicon. SAM holds the mineral rights to 94 exploration permits covering an area of approximately 136,000 hectares. The permits are grouped into nine exploration areas identified as Blocks 5 to 13, located along a mineralized trend of approximately 270 square kilometres in the north of Minas Gerais (Blocks 6 to 13) and the south of Bahia (Block 5).

The second-largest deal saw China Railway Materials Commercial Corporation acquire a 12.5% stake in African Minerals Limited (AML) for US\$244 million. The offer represents a premium of 19.6% based on AML's closing share price one day prior to the deal announcement date, and will allow AML to undertake its first phase of iron ore production in the foreseeable future.

Upcoming outbound activity

According to reports, Zhaojin Mining, the Chinese gold miner, is eager to make acquisitions overseas, with reports suggesting that it is looking to snap up an Australian gold mine. The company is believed to have an M&A war chest of approximately US\$141 million and is said to be hunting aggressively in Australia seeking to buy mines with pure gold reserves of over 30 tons. Zhaojin Mining previously acquired a minority stake in Australian Gold Miner Citigold in July 2010, and is now looking to acquire a majority stake in a new target. Oz Minerals, Resolute Mining and OceanaGold have all been mentioned as potential targets but industry commentators note that there may not be a lot of opportunities to acquire companies with such plentiful gold reserves in Australia.

Antares Minerals, the Canadian gold and copper company that explores Latin American prospects, could also attract takeover interest from Chinese bidders, with one analyst noting that the company's Haqira project in southern Peru is one of the largest undeveloped copper assets controlled by a junior exploration entity.

Finally, Hebei Iron and Steel Group, the state-owned Chinese steel producer, is reportedly in talks with Atlas Iron over the purchase of a stake in the Ridley magnetite project. The project is based in Western Australia and is expected to mine 15million tons of iron ore annually over the next 35 years. Previous reports suggest that the project is worth around US\$290 million.

Renewable energy



Wind

Chinese energy companies know that one of the keys to success is to integrate their traditional style of business with an approach that allows growth in a global economy. While Chinese companies in the non-renewable energy sector have been able to adjust and thrive in a global business climate, companies in the renewable energy sector have adopted a global mindset as well. The Chinese government's initiative to cut the carbon intensity of the economy in 2020 by 40 to 45 percent from their 2005 levels¹ and the subsidies provided to wind and solar power companies has enabled them to compete internationally.

In fact, Chinese-based wind power companies are doing so well that the Chinese government recently decided to end wind power subsidies.² The government's decision came on the heels of pressure from the World Trade Organization after the United States filed a complaint last December. While U.S.-based manufacturers consider this a victory, Chinese companies do not believe this will have a major impact on them.

The subsidies were meant to boost the industry during its infancy, but now, the Chinese wind power industry is able to stand toe-to-toe with its international competitors. China now has over 80 wind turbine makers, and as of 2010, it passed the U.S. as the country with the greatest wind energy capacity reaching 44.7 gigawatts.³

For Chinese wind power companies to ensure their continued growth, they have learned to integrate into the globalized business atmosphere. Traditionally, Chinese companies had looked domestically to buy components for their wind turbines; however, they have started brokering deals with non-Chinese companies for their parts. This has allowed them to build strong business relationships which have been a gateway to international markets.

Xinjiang Goldwind Science and Technology, a leading producer of wind turbines globally, agreed to buy parts, components, and turbine services from The Timken Company, a U.S.-based company specializing in manufacturing bearings, steel alloy, and components. Additionally, Goldwind has also had a longstanding relationship with Denmark's LM Wind Power. LM is the preferred supplier of blades for Goldwind. Cao Zhigang, Xinjiang Goldwind's vice president, said that the company expects to propel wind power technology development worldwide through cooperations.⁴

Xinjiang Goldwind is not the only Chinese company buying supplies from outside of China. A subsidiary of China HuaNeng Group inked a US\$6.2 million deal with CleanTech Innovations to receive wind tower products.⁵ Sinovel Wind Group, China's biggest turbine manufacturer, purchases components and parts from global partners as well.

Chinese wind energy companies have started to open up branches outside of China. Xinjiang Goldwind established Goldwind USA in April 2010. Instead of using the Western approach to globalization, where expatriates are integrated into foreign markets, Goldwind has used the Chinese approach by employing local workers and cooperating with local suppliers.⁶ So far, this strategy has proved successful. In December 2010, Goldwind won a bid to provide 109MW of power to Shady Oaks LLC.

1 *Renewable Electricity Incentives in the OECD, China, and India, 2010/11*. London Research International. pg. 134

2 "China ends wind power subsidies after the US files case with WTO". Meri News. 8 June 2011

3 Yiyu, Liu. "China to halt wind turbine subsidies". *China Daily-Hong Kong Edition*. 8 June 2011

4 SinoCast Energy Beat, 24 May 2011

5 "CleanTech Innovations wind Chinese \$6.2m wind tower contract". *Envirotech & Clean Energy Investor*. April 2011, pg. 41

6 Trabish, Herman K. "Goldwind: Will wind be China's next big export to the US". *Greentech Media*. 19 April 2011

This is the first large American wind farm to use Chinese-made turbines.⁷ Additionally, in April, Goldwind won two more orders to supply a total of five 1.5MW turbines to two farms located in Ohio and Rhode Island, both of which are funded by American companies.⁸

While Chinese wind energy companies are expanding outside of China and seeing positive results, they are not always doing it on their own. Longyuan, one of the world's largest wind farm developers, has partnered with Spanish-based firm Gamesa to build 200MW of wind plants in China by 2015. The two firms hope to develop sites in Europe, Latin America, and the U.S. as well.

Additionally, Sinovel has signed a strategic partnership with the Greek power firm Public Power Corp to construct a 200MW-300MW wind farm in Greece. Through this partnership, the companies also plan to build wind turbine manufacturing facilities.

Finally, Chinese companies have become innovators in wind turbine technology. Goldwind had been developing the permanent magnet direct drive (PMDD) generator over the past 6 or 7 years. The PMDD helps eliminate the gearbox, which is the part of the turbine that breaks the most and is costly to fix. The PMDD improves efficiency while reducing costs. It is quickly becoming the standard for wind turbines.

Solar

Unlike wind power, solar power use in China has evolved at a much slower rate. At the end of 2008, the total installed generating capacity of solar power in China was 150 MW compared to 12,000 MW of wind power. This is mostly because wind power is a more reliable source of energy for China. However, with the advancement of solar power technology helping improve efficiency and the Chinese government's insistence on increasing solar capacity, the solar power industry in China is quickly growing. The government has implemented a plan to double solar capacity from 5 GW to 10 GW by 2015.⁹ This is part of a larger plan to increase the use of renewable energy to 15 percent by 2020, up from 8 percent currently.¹⁰

While China is not at the forefront of solar installed capacity, Chinese companies operating in the solar power industry are thriving. China is the largest exporter of solar panels, and China-based solar power companies are some of the biggest and most innovative in the global market. In fact, as of 2010, China's Suntech Power Holdings and JA Solar Holdings were the two largest manufacturers of solar-cell production in the world, and Trina Solar was the ninth largest. That year, Chinese and Taiwanese manufacturers accounted for 59 percent of solar-cell production, globally.¹¹

Chinese solar power companies have been able to globalize themselves successfully using their corporate approach instead of the Western approach. They have expanded globally by establishing subsidiaries in foreign markets and signing strategic partnerships with other international players to continue to strengthen their foothold in those markets. Furthermore, some companies have acquired or merged with other enterprises to establish vertical control structures where Western corporate influences focus on horizontal growth.

Traditionally, European countries have been the leaders of solar power use. However, the recent decision by European governments to cut incentives associated with solar power has caused demand to decline. The United States solar industry is seen to have the most potential for growth with the expectation that 10 GW of solar capacity will be installed each year by 2015 according to the Solar Energy Industries Association. In 2010,¹² 1 GW of solar capacity was installed with that number expected to double this year.¹³

This potential is good news for Chinese solar power companies. Suntech Power, Trina Solar, and Yingli Green Energy already have subsidiaries headquartered in California and are major players in the industry. These companies are providing strong competition for U.S.-based companies in their home market.

7 "Goldwind wins two orders in US". *China Energy*. 25 April 2011

8 Ibid

9 "Solar Stocks Rally as China Could Double Solar Capacity by 2015". *StreetInsider.com*. 13 April 2011

10 Spegele, Brian. "First Solar sets joint venture in China". *The Wall Street Journal Online*. 11 May 2011

11 "Global Photovoltaic Installations Grew by 2.4 Times in 2010". *Japan Chemical Web*. 29 March 2011

12 "Suntech revels in bright future". *Industry Updates*. 24 March 2011

13 "The future's looking bright for Suntech". *China Energy*. 17 March 2011

In fact, Suntech controls 20 percent market shares in the U.S. sector. Google Inc. chose Suntech's solar panels, instead of a U.S.-based company's, for a 2 MW installation to power its data center at its global headquarters. This was the largest corporate installation in U.S. history.¹⁴ With the continued growth of the U.S. market, Suntech is planning to increase the production capacity of its Arizona factory to 50 MW annually. In turn, the company plans to nearly double the number of employees at the factory from 80 to 150.¹⁵

While Suntech, Yingli, and Trina already have operations in the U.S., other Chinese firms are trying to break into the market by signing strategic partnerships or merging with other companies. JA Solar recently entered a two-year strategic partnership with Florida-based Jabil Circuit where JA Solar will supply Jabil with 400 MW of solar cells. Furthermore, the two will collaborate on selling JA modules in the U.S. Peng Fang, CEO of JA Solar, said, "This alliance demonstrates the great success of our long-term strategy to partner with leading U.S.-based companies in order to enter the rapidly growing U.S. market."¹⁶

Finally, Chinese companies have used acquisitions to either enter a market or to create a vertical operation. For example, China-based LDK Solar acquired a 70 percent stake of U.S.-based Solar Power (SPI) to enter the U.S. market and consolidate vertically. Previously, LDK focused on manufacturing end of the supply chain products such as wafers. SPI, however, is involved in material sourcing and manufacturing, as well as installation of solar panels in the U.S.¹⁷

Biomass

In addition to Wind and Solar energy, China is investing in biomass energy, such as ethanol fuels and waste, to help meet its growing energy demands. China National Petroleum Corporation will invest \$1.5 billion dollars in new energy development programs by 2020.¹⁸ Chinese companies are looking to set up shop in foreign countries to grow plants to use as biofuels. Additionally, they are partnering with other global enterprises to help meet their demands.

While Chinese wind and solar companies are able to focus both on domestic and foreign markets, this is not the case when it comes to biomass. The development of energy from biomass is mostly a domestic priority with much smaller opportunities for exportation. Chinese companies are looking to foreign companies to help boost the Chinese market.

China is the third-largest market for ethanol fuel behind Brazil and the United States, respectively. China produces a high quantity of ethanol, but it is required to import a high quantity of corn to be able to keep up with demand. Last year, China imported 1.6 million tons of corn. Corn imports are expected to rise to between 4 million and 5 million tons this year.¹⁹ Therefore, China is pushing to use non-grain based ethanol such as cassava, sugar cane, and sweet potatoes. Cellulose, which can be obtained from straw and husks, is an alternative option as well. China has an abundant supply, and it is cheap, but the industrialization of the products has yet to be realized.²⁰

However, the China National Cereals, Oils and Foodstuffs Corporation (COFCO), Sinopec, and Novozyems, a Danish biotech company, announced that they will build China's largest cellulosic ethanol factory. They hope to produce 10,000 tons of ethanol fuel a year at the factory. COFCO estimates that China will produce 10 million tons of bio-ethanol by 2020 which would reduce oil imports by 10 percent.²¹

Due to a shortage of raw material supply, some companies have moved outside of China to produce biofuels. In 2005, Henan Tianguan leased 50,000 hectares of land to develop ethanol from cassava. Additionally, China-based Greater Kingdom Group has asked to lease 10,000 hectares of land in the Democratic Republic of Congo, so it can produce the jatropha plant. The seed of the jatropha plant can be crushed to make biofuels. It can actually yield up to ten times more energy than corn but requires five times more water than corn or sugarcane.

14 Ibid

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19 Chang, Bao. "Nation urged to hike ethanol production". *China Daily – Hong Kong Edition*. 26 April 2011

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Besides ethanol production, China is looking to use waste-to-energy technology to help keep up with the country's rising energy demands. Sino-Scottish firm Shanghai Huanan Boiler and Vessel Cochran (SHBV Cochran) and Scottish firm W2E Engineering have announced a licensing deal. W2E will license their waste-to-energy technology to SHBV Cochran. Research and development and engineering will take place in W2E's factory in Scotland while manufacturing will happen in China.²²

Finally, Chinese companies have signed agreements to provide support products to foreign based enterprises. Chinese automaker Jianghuai Automobile Company (JAC) signed a deal with Brazilian dealer SHC in August in which JAC would export 620,000 ethanol-powered cars in the next 10 years.²³ Additionally, China-based A-Power Energy Generation Systems signed a deal with Biomass Electricity in Thailand to implement power equipment for a new biomass plant. It will be a 150MW biomass plant in the Thai province of Prachinburi.²⁴

Conclusion

Over the last decade, the nature of the business world has transformed into a global economy where everyone is interdependent on everyone else. Governments and businesses alike have had to adapt and adjust the way they operate to fit into the global scheme. However, it could be argued that Chinese corporations faced a tougher challenge due to their close ties with and dependency on the Chinese government. Companies had to develop an approach where they could continue to grow but also abide by the demands of the state.

The Chinese approach has allowed corporations to integrate themselves into the global economy, but at the same time, differentiate themselves from it. This report shows how the Chinese natural resources industry learned to do this successfully. When it came to global expansion, there were some growing pains. Companies faced challenges in the mergers and acquisitions field because of their close ties with the government caused national security concerns to other countries. However, as explained in the oil and gas and mining sectors, corporations learned that their best approach was to acquire minority stakes instead of majority ones.

This gave them the opportunity to understand the inner workings of the market and learn the politics of the foreign industry. If they wanted to acquire majority stakes, Chinese companies went into volatile markets that many were afraid to enter, such as the Sudan.

In the renewable energy industry, Chinese corporations used the influx of capital from the government to innovate new designs that made them major players in the industry. Xinjiang Goldwind helped develop the PMDD generator which is quickly becoming the norm for wind turbines. In the solar energy sector, there are examples of how Chinese corporations prefer taking the vertical approach to business instead of the Westernized horizontal approach. Additionally, when China-based companies opened operations in a foreign market or acquired a foreign-based company, they kept the local workforce intact. This prevents the need for a learning period for expatriates that are new to the market.

Overall, China has been able to globalize its natural resources industry successfully. Chinese corporations still face challenges, but they have developed a best-practices framework that will help them to continue to learn and innovate.

²² "China, Scotland sign waste-to-energy deal". *Envirotech & Clean Energy Investor*. February 2011, pg. 51

²³ "China automaker JAC sends first batch of ethanol-powered cars to Brazil". *Green Car Congress*. 3 Jan 2011

²⁴ "A-Power energy initiates Thai biomass project". *Envirotech & Clean Energy Investor*. April 2011, pg. 53

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