EXECUTIVE INSIGHTS

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China Cleantech Investing in 2012: Back in Full Swing – New Sectors Emerging

Following a surge in cleantech investing 4-5 years ago, it looked for a number of years as if the focus from private equity investors was moving away. The Copenhagen summit on climate change was a disappointment and as the global financial crisis has unraveled, many investments made around that time have turned sour. Yet in 2012, when we consider the broader cleantech landscape beyond traditional renewable sectors, we can see that there has been a steady rise in investment in China. In fact, investors in the field have been very active over the past few years and dealflow is amongst the highest across all sectors in China. In this update, we explore the recent trends in cleantech investing in China and argue that the sector should be given further consideration by investors looking for attractive investment opportunities.

Cleantech can incorporate a range of technologies and sectors such as recycling, information technology, transportation solutions, chemicals and lightweight materials, and lighting – essentially any application that provides energy efficient services or reduces air or water pollution. Investment in these new areas has been driven by increased public awareness and government initiatives, particularly in recent years, following the renewable energy investment boom.

Considering first the global picture, cleantech investment has increased over the last few years to reach US$255 billion in 2011. The vast majority has been in the form of project financing and infrastructure funds, with private equity and venture capital historically accounting for a small portion of total investment (c.3-5%). However, despite this relatively small scale, PE and VC activity in the industry remained strong over the last 3 years with most of the funds starting in the 2006-08 period still having ample dry powder.

Cleantech Group estimated 2011 investments by financial and corporate investors around the globe totalling US$9 billion, a 13% increase over 2010. Cleantech mergers & acquisitions reached record highs in 2011 with 391 deals and a dollar volume of US$41.2 billion, a robust 153% growth over 2010. Given the current market uncertainty, investors are charging a higher risk premium which is supressing valuations. This is increasing the opportunity for larger returns in an industry where the long-term fundamental drivers are strong. On the other hand, market conditions mean exiting investments remains challenging with little appetite for new IPOs and investors having to accept lower valuations.

Cleantech in China: Muscling its Way Towards the Top of the Charts

China is seeing a resurgence in interest in cleantech investing. A recent survey of global fund managers listed China amongst the top regions in terms of attractiveness, and the country has taken centre stage in terms of global cleantech investment activity. China invested US$45 billion in cleantech in 2011, very closely behind the U.S. , the most active cleantech investor globally. However China has seen the fasted growth of close to 40% per annum since 2006, far outpacing the growth seen in the U.S. and most other markets around the world.

Historically, few private equity professionals placed much attention to the cleantech. In terms of sector performance, cleantech is placed outside the top 10 when looking at the

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cumulative number of deals completed between 2008 and 2012 YTD (September). However in 2011, cleantech was the 4th most active sector in which PE deals where done in China, behind traditional leaders in manufacturing, chemicals and health care. In 2011, cleantech was one of the most active sectors in terms of private equity deal flow, with 45 investments made (see Figure 1), and cleantech was also amongst the top sectors for PE exits last year (see Figure 2). According to the statistics from ZeroIPO Group, 4 cleantech related IPOs of China took place in overseas stock market, raising US$1.402 billion, including over US$790 million for Huaneng listed in H-share; meanwhile, 15 IPOs took place in domestic stock market, raising US$3.67 billion, including US$1.44 billion for Sinovel. In 2012 the momentum for cleantech IPO's has slowed somewhat. Partly this is explained by the overall slowdown in IPOs in China (and indeed around the world). But the lacklustre performance of a number of cleantech players, especially in the solar solar, has dampened somewhat the enthusiasm of investors in the sector.

China's cleantech sector has already created significant returns for a number of early investors. Forbes Magazine reported that 5 of the world's 10 richest green billionaires in 2011 were from China including Gongshan Zhu from GCL-Poly Energy and Junliang Han from Sinovel Wind Group. Private equity players have often played an important role in financing the expansion of these businesses and have been rewarded handsomely. New Horizon Capital was one of the anchor investors in Sinovel in 2008 and saw returns explode upon listing the business early last year.

However, it's not all been plane sailing. Clearly, some investors have gotten their hands burned betting on the wrong 'technological breakthrough' that has never materialized or as business performance has deteriorated. The latter has been influenced by a number of factors including the collapse of European subsidies, intensive competitive pressure as new entrants have flooded the market, and fast market saturation due to the extremely rapid uptake of a number of cleantech products and services, often induced by 'pressure and incentives' from the Chinese government to adopt specific technologies in order to reach energy saving standards. A number of PE investors were simply caught out by the speed at which new technologies were adopted, seeing incredible growth in one year but demand dry up in the following one.

China Cleantech Investing: Where Do We Go Next?

So, the billion dollar question in cleantech investing today is: where next? What is going to make up the next wave of technologies and businesses set to create superior returns for investors? The attractive sub-segments in the Chinese cleantech industry are changing. The industries which experienced the initial investment such as on-shore wind and solar have now matured. These industries face overcapacity and increased competition which will likely cause consolidation. There may still be some room in these more established areas, though this will rely on the company being able to sustain a cost advantage in a

Figure 1

PE Investment in China by Sector (2011)

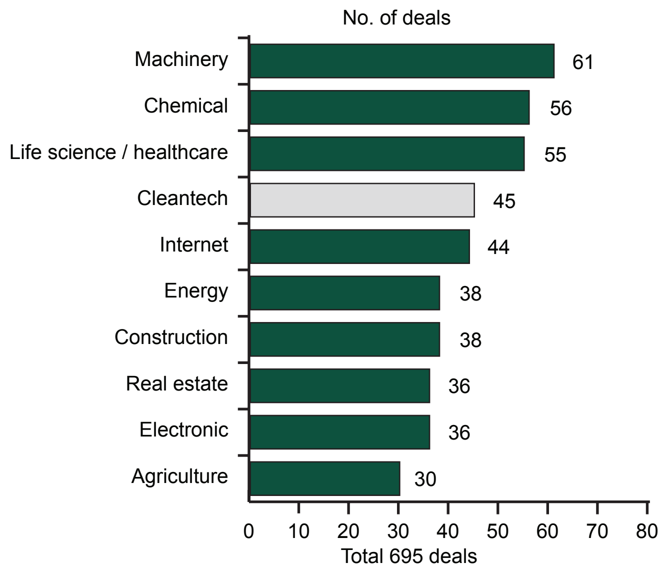
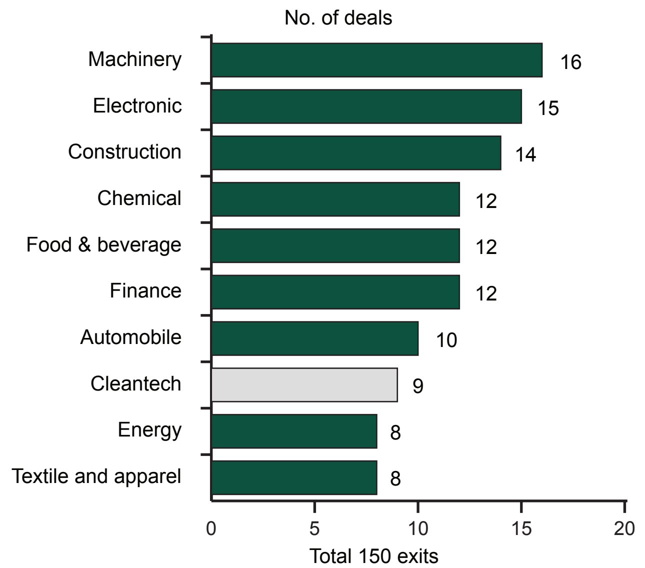


Figure 2

PE Exits in China by Sector (2011)



Source: Zero2IPO, L.E.K. research and analysis market experiencing substantial downward price pressure.

The next wave of investments will likely be in new power generation sub-segments such as offshore wind farms and environmental protection (waste treatment, pollution monitoring, CBM (coal bed methane) capture).

According to China Venture, 10 cleantech deals each with a deal value over US$50 million were completed between January 2011 to May 2012, including a US$114 million investment by KKR, the U.S. buyout fund, in United Envirotech Limited, a water purification and treatment company, and a US$105 million investment by a group of investors in Chengdu Xingrong Investment Co., Ltd., which monitors and controls pollution levels (see Figure 3).

In September 2010 The State Council, China's cabinet, selected seven national strategic industries that it hopes will advance the nation's economic development and which it is specifically targeting for China to become world leaders in over the next (12th) Five Year Plan period (see Figure 4). These industries are: energy-saving and environmental protection; alternative-fuel cars; alternative energy; advanced materials; biotechnology; new-generation information technology; and high-end equipment manufacturing, 3 of which directly relate to the cleantech industry, while advanced materials is indirectly linked through areas such as biodegradable plastics and energy efficient glass.

As is often the case in China, the government plays an active role in shaping the development of industry and creating conditions for companies to thrive in. Given the stated intention to increase the development of the key strategic industries, companies in these sectors will likely benefit from increasingly favourable government policy in the form of, e.g., reduced red tape, subsidies, tax incentives, and guaranteed loans, just as was seen in renewable energy over the last 5-7 years. This will encourage increased investment and focus in the sector, providing significant opportunities for private equity firms with the right capabilities to identify and invest in the future market winners.

The cleantech sector will continue to see big investment opportunities across a range of technologies. As the economy continues to growth substantially over the coming 20-30 years, China's energy demand will growth accordingly and solutions have to be found and adopted to change the energy mix, to increase efficiency or to reduce environmental impacts. The winners will be in proven technologies which have a big impact in addressing China's sustainability needs.

We expect to see rapid growth in nuclear power and shale gas as alternative fuel sources. We will also see big opportunities in low-emissivity glass and insulation materials that reduce energy demand from buildings. We will also see medium term opportunities in new technological areas where China will play a

Figure 3

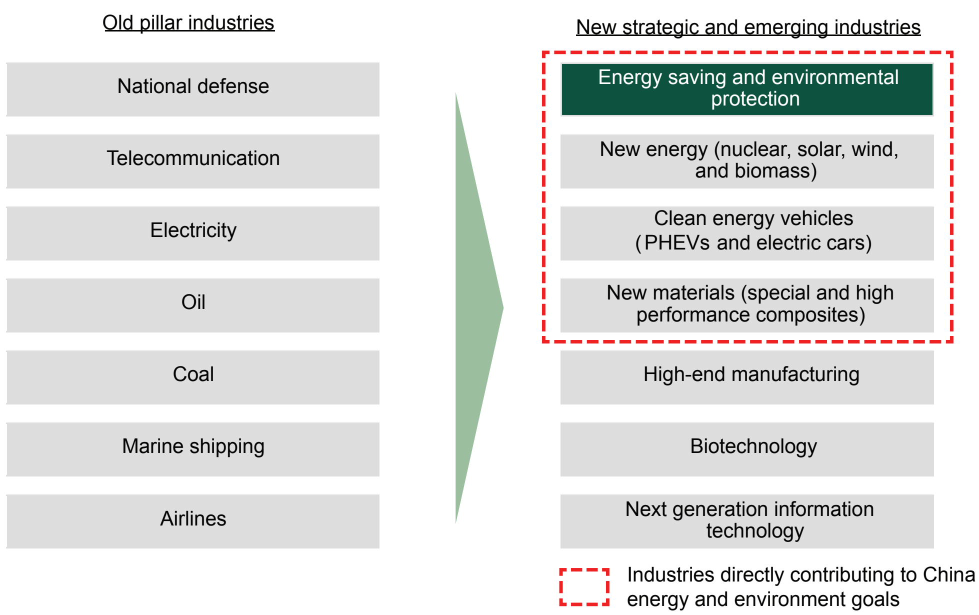
Examples of Recent PE / VC Investment (2011 – 2012)

Investor(s)	Target	Sector	Size of Investment (US$m)	Date
Haitong-Fortis Private Equity Fund Management Co. Ltd	Weihai Golden Sun Co. Ltd	Solar thermal	50	Mar-12
Sequoia Capital China	Growatt New Energy Co. Ltd	On-grid photovoltaic	100	Mar-12
KKR	United Envirotech Limited	Water purification & treatment	114	Aug-11
CIC / Standard Chartered PLC / Temasek / Olympus Capital / GE Capital / Invesco Group / Bank of China	Huaneng Renewables Co., Ltd.	Solar energy	230	Jun-11
Jiuding Capital	Jiangxi Sornid High-Tech Co., Ltd.	Solar energy	90	Jun-11
Beijing SSJ Investment / Jinglong Investment / Fund Investment / Zunfangde Investment / ZRT Investment	Xinjiang Guanghui	Gas exploration	88	May-11
TPG	Comtec Solar Systems Co., Ltd.	Battery and energy storage technology	97	Apr-11
Dinghui Investment & Fund Management Corporation (CDH)	Sinomen Technology Ltd	Water purification & treatment	277	Mar-11
Zhejiang Tiantang Guigu Investment / China Life Insurance / Taikang Asset Management / China Galaxy Investment	Chengdu Xingrong Investment Co., Ltd.	Pollution monitoring and control, water treatment	105	Mar-11

Source: China Venture, ISI, L.E.K. research and analysis

Figure 4

Development of Strategic Government Focus on Cleantech-related Industries



Source: State Council, NRDC, L.E.K. research and analysis

role in ground breaking new technologies with global potential. Examples here include scaled carbon capture and storage solutions, battery technology for storing renewable energy sources and smart grid applications. Both for near term and longer term investors, there will continue to be very exciting investment opportunities across a broad range of technologies in China.

L.E.K. Consulting is a global management consulting firm that uses deep industry expertise and analytical rigor to help clients solve their most critical business problems. Founded nearly 30 years ago, L.E.K. employs more than 1,000 professionals in 21 offices across Europe, the Americas and Asia-Pacific. L.E.K. advises and supports global companies that are leaders in their industries – including the largest private and public sector organizations, private equity firms and emerging entrepreneurial businesses. L.E.K. helps business leaders consistently make better decisions, deliver improved business performance and create greater shareholder returns.

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