China: Looming large

This research has been conducted by Mark Storry, Joseph Hincks, Vanessa Acuna & Sarah Timson of Global Business Reports

GREATER CHINA

There is nowhere more exciting, faster growing, or that offers more opportunities for Chemical companies than the Greater China region. The Chinese Chemical sector grew by 10.2% in 2009 to reach a value of $648 billion. The Chinese sector now accounts for more than 50% of the Asia Pacific market. Yet, at the same time, few places are more difficult to operate in and understand than mainland China.

In spite of the scope for doing business here, around 90% of joint-ventures in mainland China fail according to Nikolas Gruber, President of GruberChem, a raw materials sourcing centre for international players in China. The Chinese market is fiercely competitive and suffers from considerable over capacity.

Given the difficulty of operating on the mainland, why do international companies still come to China? Dr. Von Zumbusch, President of Wacker Chemicals Greater China, argues that one must balance the risks of operating in the region with the risk of not being in China.

His view reflects the consensus amongst multinationals: the Chinese market is too large and too important to opt out of. Whatever the risks that major chemical companies face, it is imperative that they establish a presence here.

Dr Raymond Shaw, President of Tuthill China, a US manufacturing company specialising in vacuum pumps, argues that China has been the phenomenon of the world economy: “China’s economic development without access to substantial natural resources is a symbol to other counties that progress is possible. In the past 30 years the Chinese economy has grown by a factor of 80. China represents 8% of global GDP and has now overtaken Japan as the second largest economy in the world.”

Frank Schneider, Global Head of Coatings of IMCD , the Dutch Speciality Chemical distributor which has grown aggressively in Europe in the past decade, says: “China, to be quite frank, is seen as a core market for us. Our aim is to be the top speciality chemical distributor in China”. His colleague, Eugen Rothermel, Managing Director of IMCD China, adds to this: “We will achieve 100 million Euros of sales in the next 5 years.”

Eugen Rothermel, Managing Director, IMCD China

Chemicals are an input ingredient for all elements of the economy. As manufacturing facilities move to China and domestic demand increases, we can expect the chemical sector to undergo proportionate growth. “China is the growth engine of the economy of the future”, says Michael Koenig, President, Bayer Greater China, the German conglomerate. As such, multinationals are prioritising the Chinese market. Peter Liu, VP Asia Pacific of Solutia, the speciality chemicals manufacturer declares: “We view Asia as a driver for our global business, especially after the global financial crisis.”

Interview with Chairman Xu Xu, Chinese Chamber of Commerce of Metals, Minerals and Chemicals Importers (CCCMC)

Please provide a background of the CCCMC and explain the role the Chamber plays in the economy?

The CCCMC was established in Beijing on the 1st of September 1988. We have over 5,100 members covering metals, minerals, crude oil, chemical products and plastics among others.

The CCCMC came into being when China began its transformation to a socialist market economy. Beforehand we didn't have any large import & export associations.

Our responsibilities include co-ordinating and guiding our members' business operations, protecting our members' interests and organising responses to anti-dumping investigations against Chinese enterprises. The CCCMC serves as a bridge of communication between the government and the related Chinese enterprises.

Petro-chemicals are seen as a key area of the Chinese economy, especially in relation to the energy sector. We feel that the Petro-chemicals area in China has some way to go and needs to be strengthened. Our petro-chemical market is increasingly open to domestic and foreign investment.

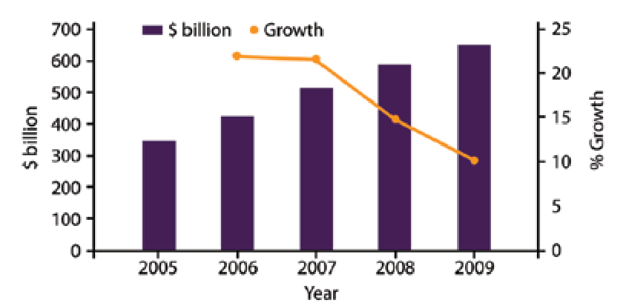
It is well known that only four companies are able to import crude oil into China, but if we look downstream, the sector has considerable foreign investment, such as the tyre production industry.

China has a history of more than 30 years of foreign investment. We need high technology and clean technology to save energy and reduce pollution; we welcome foreign investment.

What do you see as the main challenges to growth in chemical the sector?

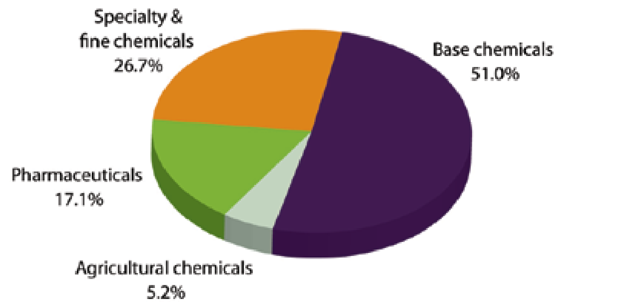
On the one hand, domestically China's industry has a problem with overcapacity, low domestic demand and fierce domestic competition, while internationally we're facing the trade barriers of foreign countries restricting entry into their markets by the use of anti-dumping measures, countervailing duties and complicated chemical regulations such as REACH.

China Chemicals Market Value: $ billion, 2005-2009



Source: Datamonitor

China Chemicals Market Segmentation: % share by value, 2009



Source: Datamonitor

What can we do to solve those problems?

To begin with, China needs to increase crude oil production capacity, eliminate outmoded production and upgrade production equipment.

In our capacity as the import & export association, the CCCMC has been organizing its members to respond to trade barriers. We also provide consulting services about laws and regulations. For example, the CCCMC's REACH Regulation Consultancy, which is the only one of its kind designated by the Ministry of Commerce of China in China, provides EU REACH regulation registration services for Chinese enterprises.

We also need to enhance the sense of social responsibility of chemical producers. Learning the worldwide Responsible Care and Responsible Distribution initiative, the CCCMC has endeavoured to set social accountability standards for Chinese chemical producers according to the domestic conditions.

The CCCMC has made the Social Accountability Management Standard for the Citric Acid Industry together with the related Chinese enterprises in the industry, and is now promoting it to Chinese enterprises. If the standard promotion succeeds in this industry, we will promote it to the Chinese petro-chemical producers as well as other industries.

There is a need for more Western investment in China, and the West looks to China for growth. Who needs who more?

It is a case of interdependence, whereby we need each other. For China to advance the chemical sector we need to focus more on the higher technologies which the west can bring to the market, while China offers great opportunities for long-term investors.

After the global financial crisis, with the recovery of the world economy, China's chemical industry has been reinvigorating in 2010. China has a strong supporting production capacity for raw materials and technology has been improving. Therefore the competitiveness of China's chemical industry will grow stronger and stronger.


We're the science behind the sky's the limit.
Architects and builders dream big. Materials from Momentive help turn these dreams into reality. From the structural glazing that holds massive curtain walls in place, to the glass insulation and efficient lighting systems that lower energy costs, to environmentally advanced adhesives used in interiors, furniture and flooring, our products play a key role in countless applications that make the world's most innovative structures possible. To find out more about how we can build a future together, **visit us at sciencebehind.com**
Momentive is a global leader in specialty chemicals and materials with over 10,000 people and 115 manufacturing facilities dedicated to making our customers' products and processes perform better. With 2010 pro forma sales of $7.5 billion, we serve a broad range of markets including construction, transportation, electronics, energy, healthcare/personal care and consumer goods. Momentive Performance Materials Holdings LLC is the ultimate parent company of Momentive Specialty Chemicals Inc. and Momentive Performance Materials Inc. (collectively, "Momentive"). Momentive was formed in 2010 through the combination of entities owned by Momentive Performance Materials and Hexion Specialty Chemicals.
MOMENTIVE™
© 2011 Momentive momentive.com

CHINA'S REGULATORY FRAMEWORK

While China has certainly moved on from its iron rice bowl past, yet todays Chinese market is heavily controlled by the government and varies between being very open and very closed. In common with most emerging markets, the petrochemical sector is difficult to enter. In speciality and fine chemicals the barriers are much lower and in these areas private multinationals, rather than domestic companies, are the dominant players.

Geir Sviggum, Chief Representative of Norweigian legal firm Wikborg Rein, explains that investment into China can be classed into 4 categories: Encouraged, Permitted, Restricted, Forbidden (primarily the military industry) The majority of activities involving chemical companies fall under the first and the second of these categories, but certain areas including the petrochemical industry and natural resources, come under the third. According to Mr. Sviggum, the Chinese are no longer in need of capital investment; instead they are looking for technology.

The majority of foreign investment in China falls into 4 main categories. Firstly there are Joint Ventures (JVs). JVs can either be Equity Joint Ventures, whereby ownership of a company is determined by the amount of equity invested, or a co-operative JV, whereby the percentage is negotiated between the two parties. "A Joint- Venture is a great way to enter the market, and if you find a strong partner they can take you a long way," says Michael Zhu, General Manager of French specialty chemical producer Rhodia, "but sometimes you need to enter in off your own back." Rhodia is now celebrating its 30th year in China and currently has 16 companies in China; 9 wholly owned and 7 JVs.

The second and more common type of investment is to form a WFOE (Wholly Foreign Owned Enterprise). The majority of multinationals in China fall into this category. Restrictions on entry as a WFOE within certain areas have lessened since China's entry to the WTO. Dr Hu, President of Süd-Chemie China, details his experience of building business in China: "It was complicated rather than difficult. Firstly we had to find the right place, then get government authority and make sure they delivered upon their promises. We had to discuss and negotiate the conditions with the government".

The third way of investing in China is to set up a representative office. Technically representative offices are prohibited from engaging in commercial activities and even signing contracts. Nevertheless, they are often used as a first step into the Chinese market.

The final way for a company to enter or build its presence in the Chinese market is via an outright acquisition, be it of a local company, an entire MNC, or the Chinese assets of an MNC. An excellent example of expansion by acquisition is Huntsman in Asia. Anthony Hankins, VP Asia Pacific of Huntsman, explains how this strategy worked for his company: "We based our expansion in Asia on acquisitions and basically acquired the expertise from companies already operating here in China. This provided us with access to their knowledge and culture."

Huntsman is something of an acquisitions expert, having made more than 40 acquisitions in the recent past.

Despite this, the awful fact remains that most joint ventures in China fail. Cultural differences between the parties involved are often cited as a primary reason for the failure and horror stories are rife. One major MNC set up a JV with a large Chinese company whereby the MNC were responsible for the international sales of the product, while the Chinese company was in charge of domestic sales. The MNC was taken aback when some months later they found that they were being undercut by their own products on the international market. The Chinese company had sold the product to a trading company who then exported them. Perhaps it wasn't breaking the literal terms of the agreement, but certainly the spirit.

In a similar way, multinationals have often been surprised by the authoritarian nature of the government. China is famous for its smoggy polluted cities

The Chinese Currency

It is often estimated in the USA that the Renminbi (RMB) is undervalued against the dollar by around 25%. The exchange rate is important to the chemical industry for a number of reasons. While most chemical companies are no longer in China just for exports, few companies raise money in China. Large investments in China are conducted either off of a company's balance sheet, likely denominated in USD, Euro's or Yen, or else financed by the international markets. While there have been a few examples of RMB denominated financing, finance is normally imported to China. Furthermore, while China is becoming a global player in the chemical sector, it is still some way behind in the equipment and service sector which would normally be USD denominated. Thus multinationals in China benefit from the 'cheap' RMB when investing in China as products and services bought from China would be undervalued. On the other hand, anything which is bought from overseas suffers. Petrochemical companies essentially suffer a 25% surtax due to their reliance on imports. Chinese companies have a competitive advantage when exporting and an incentive to buy products and services locally.

Despite pressure from the USA, a rapid appreciation of the RMB is unlikely to happen. The Chinese central bank currently encourages a policy of gradualism in the exchange rate. While China is committed to move from a low value added exporter to focus more on its domestic market, the credit crunch has held back any firm appreciation and within the chemical sector, domestic companies are concerned that without the exchange rate advantage they would lose out to Indian competition. China is said to have had a 'good' credit crisis; in fact Dr Dahai Yu, President of Evonik Greater China, argues that the financial crisis actually increased the movement of the global economy eastwards. As a response to the crisis the Chinese government authorised a $590 billion stimulus package, part of a strategy to reduce reliance on the export sector and increase the focus on domestic consumption. The Chinese economy slowed to 6.2% in the first quarter of 2009 but then rose rapidly to 11.9% in the first quarter of 2010.

which the government took serious steps to clear before the Shanghai Expo. One multinational was surprised to be told to stop operations in its flagship Shanghai plant without warning and no opportunity to make contingency plans. Many CEO's see the Chinese government's ability to get things done as an advantage, but the lack of western style consultation and lobbying can be detrimental.

TAMING THE TIGER: INTELLECTUAL PROPERTY AND CHINA'S REGULATORY FRAMEWORK

"Do you know the story of the tiger and the cat?" asks Professor Kevin Li, General Manager of compliance company ReachTek. The ex-government man reclines into the sofa, hands folded on his lap. "A tiger met a cat coming up the mountain one day and begged to learn his tricks. The cat reluctantly accepted and became the tiger's teacher. That is why the cat and the tiger move in the same way, they hunt in the same way." Professor Li recounts the ancient Han tale as a means to illustrate his relationship with a former student, who broke away from ReachTek to start his own competing organization. But at the end of the story, the cat ends up safely atop a tree with the arrogant tiger seething at its base. Suffice to say, the cat hadn't taught the tiger all of his tricks.

As an allegory, professor Li's story resonates with a widely held perception of the chemical sector in China. While the four Asian tigers—Hong Kong, Singapore, Taiwan and South Korea—have historically been considered safe and reliable investments, China has long been characterized as the ultimate tiger: immensely powerful, unpredictable and dangerous. Long before the Office of the United States Trade Representative placed China on its "priority watch list" for intellectual property rights violations in 2007, multinational companies have been concerned about revealing their 'tricks' to a power that has the ability to emulate and mass-produce at devastating capacity. There has been little to suggest, however, that Europe and the US will be afforded the same vantage point as the cat of the Han story; with China overtaking Japan as the world's second largest economy, 2010 was emphatically the year of the tiger.

The pervasive image of China as copycat is not entirely unfounded—multi-nationals with operations in the country have had reason to be wary of intellectual property rights violations in the past. "Chinese companies can be very quick to reverse engineer products", explains Dr Wong Shui Ling, Managing Director of Croda Hong Kong, a global manufacturer of specialty chemicals and oleochemicals."Their normal strategy is then to mass produce them, bring the cost down and turn them into commodity chemicals."

This low regard for intellectual property can be partly attributed to China's history as a manufacturing base according to Vice Mayor Xu Zhonggao, a member of the Standing Committee of Zhangjiagang municipal free trade zone and Zhangziagang Free Trade Zone Working Committee of the Communist Party: "In the past, many enterprises in China focused solely on manufacturing. They didn't have any technology issues so IP protection was not really a consideration for them."

Mr. Koh Boon Tong, Country Manager of Arch Chemicals, believes that the situation is showing signs of improvement: "The situation in China is getting better. People say that the Beijing Olympics helped the Chinese to value technology. A lot of new technology was developed at the Olympics and the government began to appreciate that if they developed technology, they needed to protect it too. I think it precipitated a change of mindset." This change of mindset manifests itself in the marketplace according to Dr Yu, President for China of Evonik, the German specialty chemicals company: "You can see that Chinese companies are increasingly enforcing IP regulations and in companies like Evonik we are looking into adjusting to the opportunities and managing the risks to continue implementing our investment plans."

New legislation has helped improve the intellectual property environment in China. According to Vice Mayor of Zhangjiagang, Xu Zhonggao: "The government has created various authorities and put regulations into place to help enterprises protect their intellectual property. They are expending a great deal of effort in this area. The intellectual property situation is becoming better in China."

Multinational companies attest to the situation having improved in China, but stress the need for continued vigilance. Joseph Chan, Executive Vice President and Managing Director for Asia of Hexion Specialty Chemicals, echoes the sentiments of many enterprises who are taking measures to improve the intellectual property situation in China: "We continually educate our employees on the importance of intellectual property. It is the blood of our company, of any company really. We try to re-train and re-educate, making sure that everyone understands the importance of protecting our technology."

REGULATIONS

Further to EU REACH, the Chinese government has made changes to the country's own regulatory framework. China's Ministry of Environmental Protection's new regulations, dubbed 'China REACH', came into effect on 15 October 2010. These regulations aim to control the manufacture, import and use of chemicals in the China and will also help to prevent unscrupulous practices. "In China there is a perception that Western companies come here because they see light environmental standards. There is a feeling locally that foreign companies come to exploit the environment and engage in activities that they couldn't in Japan, the US or Europe," says Sheldon Zhang, President of Spectrum Chemicals China, a specialty chemical and lab machinery distributor. This view is widely perceived. Eugen Rothermel, Managing Director of IMCD China elaborates: "There is a perception in Europe that China is something like the Wild West. In fact, we have seen a significant strengthening of the regulatory framework, at least on the theoretical level".

Although a largely positive move, China's new stricter regulatory framework will pose some challenges for foreign companies looking to do business in the region. "Normally, for Chinese companies to export chemicals to the EU they have to pay European companies a lot of money to do the work. It might be the same for European companies exporting chemicals to China: they might have to pay the same kind of costs," points out Yunbo Shi, Managing Director of Chemical Inspection and Regulation Service Limited (CIRS), a subsidiary of ReachTek with offices in Ireland. Cost of compliance aside, the regulations laid out by China's Ministry of Environmental Protection will benefit both multinationals and the entire Chinese investment environment according to Vice Mayor Xu: "Recent changes in the regulatory framework are mainly targeted at low-end production sites. The government is trying to eliminate lagging technology and production. Lagging enterprises invest little in safety and environmental protection. Regulations targeting this kind of company will benefit the market framework as a whole. The changes have improved the whole investment platform in China, and are a good thing for foreign investors bringing their advanced technology, environmental, and safety control to China."

EU REACH precipitated the emergence of a niche group of Chinese compliance companies which help businesses navigate the regulations and export their products to Europe. Professor Kevin Li, General Manager of REACHTek, one such organisation, states that becoming REACH compliant is more than just a legal obligation for prospective exporters: "More and more Chinese chemical companies are beginning

Michael Zhu, General Manager, Rhodia China

to accept the importance of complying with regulations and they will take the necessary steps to do so. But compliance is more than a mere matter of bureaucratic necessity; [compliance to] chemical regulations reflects people's increasing awareness of protecting human health and the environment." Despite this positive approach, some respondents are worried that the implications of the legislation may be devastating, speculating that up to 20% of Chinese chemical companies could go under if the laws are enforced.

So, can the tiger of the Han story be maintained as a legitimate analogy for the Chinese industry's relationship with the West? Rambunctious, authoritative and associated with Tsai Shen Yeh, the God of Wealth, there is still no animal that better characterizes the Chinese chemical sector. But with China's increasing regard for safety, the environment, and the protection of intellectual property, though never de-toothed, the tiger is fast developing the restraint and discipline worthy of position in Han mythology as king of all beasts.

ENVIRONMENT

Environmental concerns are becoming increasingly prevalent in determining Chinese chemical regulations. Premier Wen Jiabao's insistence that China's government works with an 'iron hand' to reach energy efficiency targets may have been greeted with some scepticism, but environmental NGO's responded positively when the state media reported that China had ordered that more than 2,000 highly polluting, unsafe or energy inefficient plants be shut down within two months of 9 August 2010.

Environmental concerns are becoming increasingly prevalent in determining Chinese chemical regulations. Premier Wen Jiabao's insistence that China's government works with an 'iron hand' to reach energy efficiency targets may have been greeted with some scepticism, but environmental NGO's responded positively when the state media reported that China had ordered that more than 2,000 highly polluting, unsafe or energy inefficient plants be shut down within two months of 9 August 2010.

"There is no doubt this announcement is significant, especially because it is complete with real consequences. If companies don't meet the target they will be barred from obtaining loans, for example," said Alex Wang, of the Natural Resources Defence Council.

Arch chemicals China country manager, Mr. Koh Boon Tong, whose biocides business has invested considerably in environmental protection, agrees that China's attitude towards safety and environmental protection is progressing: "I feel that in the last year at least, things have been a lot more positive and it's not just lip service. They're really going ahead and doing something about the environment."

Simon Zhou, CEO of ISO 9001 certified Mint Chem, a copper methane sulfonate, fluorine salt, and other inorganic salt producer, believes: "Environmental standards have become much stricter so that it can be difficult for small companies to adapt to them". Mr. Zhou goes on to say that companies who follow environmental regulation properly can become less competitive and thus there is always pressure to cut corners.

WACKER Shanghai Technical Center takes a key role in offering its customers best-in-class service and support while actively contributing to environmental awareness

Perhaps the biggest barrier to improved environmental conditions in China is the imbalance between governmental agenda and ambivalence at an industrial level.

While the government is attempting to push forward better environmental regulation, there are few incentives in place to encourage the local business population to embrace the higher costs associated with good environmental practice.

In effect, Chinese environmental regulation is all stick and no carrot. Local government officials don't necessarily apply regulations to the letter of the law. This can be because of a focus on economic growth, collusion with businesses, or outright corruption.

Yantai Wanhua Polyurethanes Company

Yantai Wanhua company and its President, Mr. Ding Jiansheng, provides an excellent example of just how dramatic and sudden has been the rise of China's chemical industry. Since 1998, when Mr. Ding was first allowed some autonomy by the state that owned the company, Wanhua has grown by 40 times to become a global leader with manufacturing and sales operations around the world and valued at over 4 billion USD.

"As soon as I was granted autonomy I increased salaries in order to recruit the best talent available in China. The free market economy has freed human potential, which, when incentivized, can achieve impressive results", explains Mr. Ding Jiansheng. "There are enormous opportunities for talented people in China and we set out to attract them here." Mr. Ding Jiansheng is a firm believer in the value of talent and in the early days was happy to pay his key staff more than himself. Today Wanhua continues to scoop up awards for its excellence as an employer and maintains an incredibly low 1% staff turnover which testifies to the attractiveness of the work environment in a very competitive environment.

In 2000 Wanhua was listed on the Shanghai stock exchange. 49% of its shares are owned by private investors, whilst the remaining 51% remains the property of the state. Sales peaked at 1.2 billion USD in 2008 and seem set to increase. It commands a massive 33% market share in China and accounts of approximately 15% of global production capacity. Sales offices have been opened in New York, Amsterdam and Dubai and exports account for around 30% of production. Further international expansion is imminent. Wanhua is currently completing the acquisition if Borsodchem in Hungary: "We have until recently been growing organically abroad, however, with the global financial crisis some very exciting opportunities presented themselves and thus this major acquisition," continues Mr. Ding Jiansheng. Having already grown the company by forty times, Mr. Ding Jiansheng is still ambitious: "We will always sacrifice short term interests to our long term vision. We aim to be amongst the top 3 globally as we believe that scale and excellence are crucial to survive. China will continue to grow at an impressive rate fuelled by domestic demand".

CHINA'S ROLE IN THE CHEMICAL SECTOR OF ASIA PACIFIC

In 2009 Sinopec were ranked fourth in the ICIS listing of top chemicals companies. This indicates a significant change in this ranking where Asia has until now been exclusively represented in the top 20 by Japanese companies. A shift in the balance of power among Asia Pacific countries has taken place.

Rémi Charachon, President and CEO of Air Liquide, underlines the specifications of the market: "The Asia Pacific region is growing at a much faster pace than other regions, and with different type of customers. For example, the healthcare market is very large in Europe, but very limited in Asia due to the standard of living; whereas the Electronics market is very large in Asia Pacific."

While it is undeniable that China has become one of the leading players in the chemical sector, it can be wondered what kind of influence the Middle Kingdom will have on his neighbours' chemical industries. Can they develop and thrive next to such an imposing neighbour?

The global economic crisis only seems to have accelerated China's rise relative to other Asian nations. Not all countries and regions have suffered equally from the global downturn, and the gap between old economies and new players is particularly striking in this industry sector. While Japan's chemical output collapsed by 9.8% in 2009, China's demand was boosted by infrastructure development, so that the Chinese chemical sector recovered very quickly. As Mr Joseph Chan, Managing Director of Hexion Specialty Chemicals Management Asia, explains: "China had about three months of recession. The first quarter of 2009 was slow, but by April, business began to pick up. Our Asian businesses, and our China business in particular, has grown dramatically. China accounts for about eighty percent of our Asian business at the moment, so there's huge growth here, but don't forget India, South East Asia, Indonesia… My ambition is that we at least double our business, possibly treble, in the next five to seven years, because there is tremendous growth potential in Asia."

Older Asian economies such as Singapore and Japan that still maintain an edge in speciality and fine chemicals are investing in order to stay ahead of China in this area. Nevertheless, China will eventually develop its specialty chemicals facilities in order to satisfy its own demand; the question is to know how long that will take.

For Dr Dechun Fu, General Manager of BYK Greater China, this change has already started : "I think the value chain shift is already happening. I would say that today the Chinese chemical industry is capable of making all sorts of products;

Dow Chemical's Center in Shanghai, West Gate

it is only a matter of individual companies' strategy with regard to when they want to do it. It is possible to find the people and the location and the equipment in China to do everything we need to do, but to maintain a conservative approach and ensure that the market share expands without any unnecessary exposure for IP, we decided to make the transfer gradually."

The struggle to find niche sectors where Japan and Singapore can compete with China will remain a daunting one as China's chemical industry keeps moving up the value chain, reflecting the country's global ambition to set up higher standards in its key industries.

Remarkably, foreign direct investment into China was pretty steady during the 2008-2010 period, decreasing by just 1%. Meanwhile a noticeable trend has developed, with Chinese state-owned companies getting more and more involved in M&A activities all around the globe. Their primary focus is on Western assets. In what was one of 2010's major chemical deals for China, the state's second biggest company, ChemChina, confirmed that it was a global player by acquiring a 60% stake in Makhteshim-Agan, the world's 7th largest company in the agrochemicals sector. This acquisition, among many others, shows a change of focus from Chinese companies, and a desire to establish themselves on the global stage. JP Morgan recently forecast that China should account for 8 to 9% of all global M&A activity in 2011, maintaining an aggressive strategy of chemical plants acquisitions over the world. Even though China is mainly looking at purchasing assets in the Middle East, Europe or America, the Asia Pacific region is not absent from its shopping basket. In a \$3.1 billion transaction, PetroChina agreed to a 50-50 joint venture with Shell to take over the Australian coal seam gas company Arrow Energy. This Aussie JV happens in the nick of time, as China's last significant attempt to venture in to the Australian chemical market ceased abruptly when Nufarm, a crop chemical company, turned down Sinochem's \$2.6 billion bid and then proceeded to conclude an agreement with Japanese Sumimoto. The dramatic disintegration of the deal raised many questions about China's strategy when approaching foreign markets. Sinochem's management techniques have been criticised, as the company finally offered a lower bid than that originally foreshadowed in the agreement. Commentators have feared for China's potential reputational shortfall and have questioned its ability to penetrate Asia Pacific countries' chemical sector.

Western countries often see the rising giant as a danger to their own wavering economies. All major chemical companies want to expand their footprint in Asia Pacific and consider China as "the place to be". The logic is not much different for Asian economies that understand that China will leading the growth in the chemical sector and search how to make the best out of it. Such a strong partner can help them strengthen their own chemical industries and target the sector's development towards China's predicted chemical needs.

TAIWAN

Taiwan plays an ambiguous role in the Greater China region. For chemicals, Taiwan was for a long time ahead of mainland China and even today Taiwan ranks in the global top 10 for chemical production. Historically, Taiwan has been strong in Petrochemicals and Plastics.

Taiwan's largest company in this area, Formosa Plastics, is one of the top 50 global chemical companies. Taiwan's strength in this upstream area has allowed many downstream industries to develop in its wake. Taiwan, as one of the earliest countries in Asia to industrialise, has also been one of the most successful at moving up the value chain.

Taiwan does, however, suffer from severe challenges, from both the Middle Eastern competition and that from the Chinese mainland. Both have better access to raw materials and larger markets than Taiwan.

For foreign investment, despite the ease of doing business in Taiwan and a developed domestic market, an island of 23 million cannot compete with an area containing approximately 1.3 billion inhabitants. Dr Wei-Wang Chen, General Manager of Everlight, a conglomerate covering dyes to API, argues that closer ties with the mainland would help companies such as his: "Cooperation, such as the Economic Cooperation Framework Agreement (ECFA) with the mainland, is very significant for the future of Taiwan."

Dr Wei-Wang Chen goes on to say that effective co-operation could help the industry significantly in terms of access to raw materials and access to technology for the mainland. Everlight is one of Taiwan's more interesting chemical companies as the ownership are committed to running the company with extremely strict environmental and moral standards. Dr Wei-Wang Chen defines Everlight's core competences as 'Business by Integrity' and 'Management by Caring'. Taiwan's chemical Industry is far ahead of the mainland in terms of commitment to R&D, intellectual property and high added value products. Mr Lee, Chairman of Union Chemicals, a chemical trading company founded 39 years ago, concurs: "Co-operation between mainland and Taiwan needs to continue to synergise the link between Taiwan's Hi-tech industry and the mainland's market".

The ECFA agreement is generally considered to be more favourable to the Taiwanese side of the straits. There is a general consensus among chemical leaders in Taiwan that the domestic market is mature and that ambitious companies need to look outwards, and increasingly to mainland China. Dr Lee, President of LCY chemicals, the largest TPE producer in the world, remarks: "ECFA is great for us as it means we can consolidate our holdings here in Taiwan. We need to be close to the raw material and we can't get a hold of this on mainland China." Because of SinoPec and PetroChina's monopolistic role, he is denied access to raw material on the mainland. In the same way, before ECFA, it was more difficult to export from Taiwan so he had to transport his raw material to the mainland rather than transporting the finished goods or sourcing raw material locally.

Taiwan must lever its advantages in research and development of which it has many years of impressive achievements behind it.

SPECIALITY CHEMICALS

In China the sector is fragmented and consists of a plethora of SME's. Any MNC that enters the Chinese market focusing on bulk or commodity chemicals will face severe competition from local players.

All major international players are operating in China. Dr Hu, President of Süd-Chemie China, the Munich based Speciality Chemicals producer explains: "The market contains the majority of international players, rather than a specifically strong national player such as is to be found in many other countries. If you look at speciality chemicals in China you need to take a strong look at the MNCs".

MNC's continue to dominate the Chinese market place. Dr Dechun Fu, GM for Greater China of BYK Additives and Instruments says: "Today, multinationals are still more important than local companies but the weighting is changing. Five years ago multinational companies took seventy percent of the market, local companies thirty percent; nowadays it's more like a sixty-forty ratio. The relative significance of local companies versus multinational companies is changing. At least in the industries we serve, the local companies are catching up. We are seeing a narrowing of the gap between Chinese and international companies, both in terms of the products they offer and in terms of the technologies they can handle. I think the Chinese chemical industry today can be considered a more equal playing field for domestic and international companies. The Chinese government has made changes to a lot of economic policies that will affect foreign enterprises in China (regarding corporate tax and some other incentives that they used to enjoy.) So now, all those special incentives will be removed gradually; the playing field is becoming flatter."

The strongest driver of investment is the immaturity of the market. Jeremy Burks, President of Dow-Corning China, a specialised silicones company, says: "The market in China is growing considerably in sophistication and Chinese industrial output is getting more and more complex. As the market demands higher quality, companies which focus on quality and innovation will benefit".

He argues that as economic development takes affect all over China, they will demand higher quality products. This shift in culture will in turn affect the industrial sector whereby leading industrials will source higher quality speciality chemicals.

Chinese companies are eager to jump on the speciality chemicals bandwagon. The Chinese government set goals of trying to raise fine chemical production to 45% of the total chemical sector and has issued a series of preferential policies, tariff reductions and investment incentives for fine and speciality chemicals to achieve this.

China is fast becoming self sufficient in all but a few areas of fine chemicals. Currently the USA exports 25% of its chemical output to Asia, of which the majority goes to China. This number is likely to reduce as Chinese companies seize on the opportunities that it represents.

The Linde technology centre in Shanghai

Helmut W Schneider, CEO of Messer China

INDUSTRIAL GASES

The industrial gas sector in China features the full range of multinationals, all of which see China as a key market and boast sizable operations.

Air Liquide China, headed by the enigmatic Frenchman Remi Charachon, have been in China since 1915, but in 1949 stopped supplying hi-tech materials. Western Countries, upon the proposal of the USA which secretly set up the "Coordinating Committee for Multilateral Export Controls" (CcCom), which attempted to restrict member's countries hi-tech investment in socialist countries. This, together with the restrictions placed by the Communist Government, limited foreign investment as whole, except from socialist countries. Air Liquide was quick to re-enter the Chinese market when the Communist Government implemented its reform and opening policies in the 1980s.

Linde, the industrial gas giant, was also one of the first to enter the market. Steven Fang, Regional Business Head of Greater China, tells us: "We consider ourselves to be the pioneers for foreign investment in Shanghai. Our $15 million investment in Shanghai in 1986 was the largest foreign investment in China at the time".

Opportunities are still available. Helmut W Schneider, CEO of Messer China, explains: "We haven't been in China as long as some of our rivals but we were the first international industrial gas company to be based in the west of the country. We were there before the government started the 'go west policy'. We have developed our clients there and grown as they have."

Human Resources

Despite boasts of millions of graduates per year, the majority of businesses complain that these fresh recruits are not equipped with the type of skills that businesses need. For MNC's of primary concern is the candidate's ability to speak fluent English as well as their technical ability; thus for this segment of the market competition is very strong. MNCs with long experience in China, such as Linde and Messer, invest heavily in the training and development of their staff. Fostering loyalty amongst workers is essential as rivals will be keen to employ each other's staff. A local partner can be very useful when searching for skills.

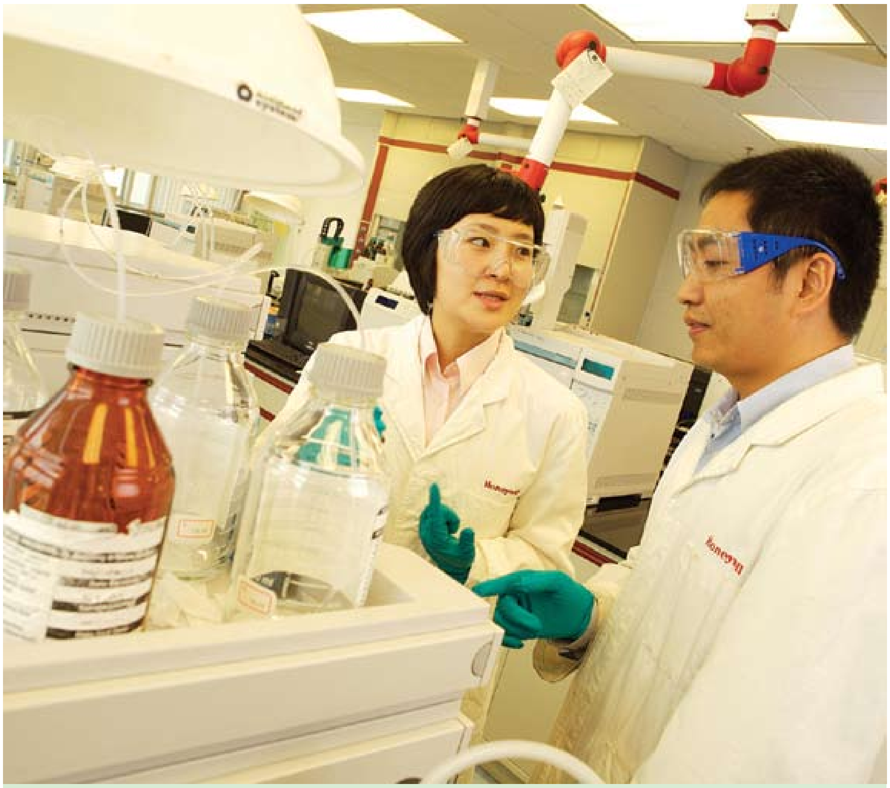
Previously, the most prestigious jobs were working for foreign multinationals. Today more and more Chinese want to work for the larger state companies, such as Sinopec and Petrochina.

There is considerably wage inflation, of around 10% per year and even higher among the senior executives.

The westward movement of industry in China is an important economic phenomena. Investment figures don't match the costal regions to date, but expect to see more and more investment in these areas.

Air Liquide China, currently headed by Remi Charachon, has been in China since 1915. Charachon says: "Only 20% of the industrial gas needs in China are met by professional companies like us through long-term contracts as opposed to self-production. This percentage is much smaller than in Europe or America. But the outsourcing trend is growing."

He goes on to explain that in China most companies would rather develop products and services in-house. Helmut W Schneider concurs: "While traditional Chinese companies like to do things themselves, some of the more capable ones have started offering their industrial gas services to the market."



Honeywell Asia headquarters

PETROCHEMICALS

The Chinese Petrochemical sector is dominated by the state giants SinoPec, Petrochina and to a lesser extent CNOOC, the off-shore oil and gas player. SinoPec and PetroChina are the countries two largest companies according to sales revenue. Sinochem, the state chemicals company, also makes the top 10 (all top companies in China are state owned).

While nationalised Oil & Gas companies are relatively common throughout the world, normally these companies act, to some extent, independently and commercially. In China, these organisations are considered to be pillars of the state. The National Development and Reform Committee (NDRC) will issue its declarations that the state companies will follow. The President's of these companies, with a few exceptions, are politicians rather than businessmen. When China entered the WTO these organisations were ordered to open up as China became less protectionist, but when you are doing business with Sinopec or Petrochina, you are doing business with China.

Sinopec ranked 9th in the Global Fortune 500 in 2009, has JV's with the top Petrochemical companies including BASF, BP, and Shell. Sinopec's international wing is listed in Shanghai, Hong Kong and New York. The company is vertically integrated and its subsidiaries are involved in the upstream oil and gas sector, logistics, manufacturing of industrial equipments, among other activities. Headquartered in Beijing, Sinopec employs more than 350,000 people.

Sinopec operates through five principal business segments: exploration and production, refining, marketing and distribution, chemicals, and the corporate and others segment. Most of Sinopecs exploration licenses are located in the south east and west of China. According to Datamonitor International, at the end of 2008 Sinopec had proved oil and gas reserves of 4,001 million barrels of oil equivalent (mmboe). In FY2008, the company produced 296.8 million barrels of crude oil and 2,931 billion cubic feet (bcf) of natural gas. Sinopec is China's largest ethylene producer with 3.6m tpa of capacity and 60% of China's total. Johnny Kwan, Chairman of BASF China says: "Sinopec is more commercially focused than other state companies; they employ the top guys and have less of a focus on job creation. If we want to make certain types of investments in China we have to have a JV with a state company".

BASF have a 50/50 JV with SINOPEC Corp involving a $2.9 billion investment. This began as a steam cracker and nine downstream plants. Johnny Kwan relates that the JV is proceeding so well that BASF and SINOPEC have now agreed upon a $1.4 expansion which will increase the cracker capacity to 740,000 tons of ethelyne. China is the third largest market for BASF after its native Germany and the US.

Petro-China is the other half of the petro-chemical duopoly, and is the first company to reach a theoretical capitalisation of 1 trillion USD and the most profitable company in Asia according to Mr Pang, International Director of the China Petroleum and Chemical Industrial Federation (CPCIF). PetroChina is the listed arm of the China National Petroleum Association (CNPA) and tends to focus more on upstream rather than downstream areas.

Petrochemical production in China is on the rise. The CPCIF expects the industry to grow by 35.3% year on year. This accounts for 12.4% of the growth in the industrial sector as a whole and is dominated by these state companies. This growth follows a downturn during the credit crisis. The Chinese petrochemical sector posted negative income growth for the first time in 10 years in 2008, when total turnover was down 6.6% year on year. The Chinese stimulus package, however, targeted petro chemicals, accelerating the sectors recovery spectacularly.

The government approved a slew of measures, including hikes in export tax rebates and extended fiscal and credit support to small and medium-sized companies in order to boost demand for petrochemical products and maintain stable development for the sector in the face of slowing global demand.

This has ensured the health of the sector as well as the companies that service it. Kiyoshi Nakao, Managing Director of Toyo Engineering China, the Japanese EPC company says: "Chinese Design Institutes (CDIs) have been rapidly changing over the past few years, but they are still primarily attached to their respective parent company. These state companies don't necessarily always tender out requests as we would expect in other countries which makes it challenging, but not impossible to do business with them." Toyo are currently working on the Integrated Petrochemical Site (IPS-II) project for BASF-YPC Company Limited, a joint venture of BASF, and SINOPEC.

PHARMACEUTICAL SECTOR

The Chinese pharmaceutical sector is poised to become the fifth largest in the world, enjoying considerable investment by "Big Pharma", as well as its own Traditional Chinese Medicine (TCM) segment which accounts for about 30% of the market. The hopes of the West are to capture a part of the USD 124 billion to be invested in healthcare over the next three years, according to the 2009 reforms.

Despite all of this potential, the Chinese pharmaceutical sector still suffers from fragmentation and concerns over the legislative framework. While China does have its array of strong players, both from the mainland and Taiwan, the fragmented nature means that no one company has more than 2% of the market and local companies tend to be regionalised.

Concerns about IP have affected R & D in the pharmaceutical sector. "Before it was very easy to make 'new drugs' in China," says Dr. Allen Riting Liu, an expert in Chinese pharmaceutical in-licensing, "but the so-called new drugs were not really generics; they were 'imitation drugs.'"

The introduction of the Patent Law in 1993 changed the face of the pharmaceutical industry, bringing regulations for generics in line with EU, US and Japanese policy and protecting chemical compounds. The patent law initiated a fresh surge of investment into research and development within Chinese pharmaceuticals.

Dieter Pfeifer, VP Chemicals China of the German Boehringer Ingelheim, remains concerned about the legislative framework: "As we participate in the regulated market we can't directly import our product. Instead we need to sell them to an importer who will then sell them on to a distributor, then possibly one or more sub-distributors. This means there can be three or more levels between us and the end customer, rather than just the one level that is typical in the West".

Both mainland China and Taiwan have some very strong API manufacturers, serving 22% of the world market and meeting annual growth rates of about 15%. At the higher end of the market in Taiwan, Dr Steve Chang, President of the CCSB, is keen to differentiate Taiwanese manufacturers from lower cost rivals from the mainland: "Taiwan has been dealing with the West for many years now and is more accepting of Western based rules".

He adds that the CCSB activities are aimed at the regulated rather than the unregulated market and that most of his competitors are European. Local competitor, Scinopharm, headed by Dr Jo Shen, expects more APIs to be sourced from Asia and sees Taiwan as having a key role in this movement. Both CCSB and Scinopharm have considerable operations in the mainland with strong expectations of these to grow in the future.

With a burgeoning population with an increasing spending power and a desire for a better life style, China's pharmaceutical market is both irresistible and dangerous. The stakes are high, but all the world's leading players are at the table. Patience, skill and courage are essential to success.

GEOGRAPHY, LOGISTICS AND PACKAGING

China faces a considerable development gap between the coastal areas and the far less developed interior. China has opened up in different stages; firstly around the Pearl River Delta region consisting of Guangzhou, Shenzhen and, of course, Hong Kong.

This area remains economically extremely important but has fallen behind the Yangtze River Delta further north. Around the Yangtze are the metropolises of Hangzhou, Suzhou and, most famously, Shanghai. The third area to open is around the Yellow River Delta; most prominently Tianjin and Beijing. This economic hub in the north of the country is favored by the government who are taking active steps to encourage investments there. Jeroen Rozendal, Managing Director of Leschaco China, the German international logistics company, remarks: "We see certain movements from the government to bring more petrochemical investment to the north, specifically Tianjin, and at the same time the Shanghai government is no longer offering the same level of incentives they were offering in the past". However, outside of these three main economic zones, with some notable exceptions, foreign investment is a very new idea and domestic companies have the competitive advantage.

This means that while international logistics companies are strong on the coasts, they often partner with local companies when moving inland where they face fierce competition. Mike Andalora, Managing Director of BDP Logistics Asia Pacific, says: "China is every country's largest trading partner so there is an increased need for logistics and transportation and an ever-growing need for imports locally, though many local customers are still served by Chinese companies. Our strategy here is based on the fact that we are competing with a local market made up of state-run companies and this is a challenge." One such competitor is Sinotrans, the state-owned logistics company. We spoke to DuPont Wang, General Manager of the Chemical Division of Sinotrans. "There are certainly some advantages to being a state run company. Firstly, we enjoy easy relations with other state run companies. By that I don't mean that they automatically prefer to do business with us, but that they have been doing business with us before China opened up. Secondly, we have strong relations with the Government and thus access to credit."

Jeroen Rozendal, Managing Director of Leschaco China, sees national companies as being potential multinationals: "National companies are moving up the value chain and they have some strong advantages when it comes to operating in China. Some of these companies have been established for decades and could emerge to become rivals on an international scale in the future."

BASF-YPC Company Ltd, the joint venture established by BASF and Sinopec in Nanjing, China, is an integrated petrochemical site involving the largest single investment in the history of BASF

Given Chinese companies' natural advantages, western logistic, storage and packaging companies rely disproportionately on Western clients who appreciate the added value that they can offer. Jan Bert Schutrops, President of Vopak China, the Dutch storage and terminal company says: "As a company we add value to those companies that invest in China and need accountability and responsible suppliers who care about their product, but also about the environment and safety."

Eugene Wu, General Manager of Grieff China, the international packaging company, is firmly optimistic concerning the packaging sector in China: "We are growing at an annual rate of 50% and we have doubled our sales and our size in the last 3 years".

CONCLUSION

China offers more opportunities and more growth potential than probably anywhere else, but doing business in a market socialist economy isn't easy. MNCs can expect continued strong growth within the Chinese chemical sector together with a trend towards higher value products and services which will benefit them.

MNCs are welcomed in China as they offer technology and advanced products that the domestic market cannot. Subsidies and tax breaks within the Shanghai area are subsiding, and while no-one is suggesting that the China will return to being a closed economy, MNC's will have to prove more and more that they are adding value to China. Entrants should remember that some regional and local government officials believe in communism in its more traditional form.

Enforcing higher environmental standards will trim the ranks of Chinese companies and REACH will strongly affect the domestic industry. Within certain key sectors expect to see the emergence of a first wave of Chinese MNCs. These will be limited in number and focus on niche industries rather than broad conglomerates like BASF or DOW, but with access to easy state sponsored credit they will become key players in the global chemical sector.

In regard to Taiwan, the sector is strongly positioned to take advantage of growth on mainland China. Cheaper than Japan, more open than China, with a developed domestic demand and a high level of environmental awareness, Taiwan offers all the attributed that investors seek in order to expand into Asia. By combining these advantages and seeing China as an opportunity rather than as a threat, shrewd Taiwanese companies can ensure that the small island still packs a big punch for its size.

Prospects are best summarized by Antony Hankins, VP Asia Pacific of Huntsman: "Any company driven by shareholder value places importance on growth and China is the key growth market. If you are not committed to China then you're not committed to growth".

Bayer's integrated site in Shanghai

GBR would like to thank:

Chinese Chamber of Commerce of Metals, Minerals and Chemicals Importers (CCCMC)

Natural Resources Defence Council

Assosiation for International Chemical Manufacturers (AICM)

China Petroleum & Chemical Industry Federation (CPCIF)