Moving production west

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For several years now, we have read headlines discussing the decline of manufacturing in the west and the rise of manufacturing in the east. Even with this, large companies such as BASF, Lonza and Siegfried have continued to invest in western manufacturing. In addition, companies in Europe and the US have continued to invest in innovation. Over the last decade, manufacturing in China has steadily increased and continues to grow and is now responsible for about 30% of the Chinese economy as compared to about 10% of the US economy. With this constant reminder, it is little surprise that recent headlines in the Wall Street Journal really caught my eye. In the May 13th, 2013 edition, the headline reads "China Manufacturers Survive by Moving to Asian Neighbors (9)." Lever Style Inc.'s a producer of blouses and shirts are now gathering dust. In the last two years, the employee count has dropped by one third to 5,000 workers. The company moved production of the Japanese retail chain Uniqlo to Vietnam where wages are about half of those in China. They are also looking at the potential to move more production to India for the Nordstrom, the US department chain. Lever Style says that after facing nearly a decade of 20% annual wage increases in China, they cannot make money there any longer.

In 2103, Huajian, one of the largest shoe companies in China announced an expansion plan which would bring in an additional 1500 jobs. The expansion was not geared to its Chinese plant but to one located in Ethiopia. The move was based on wage rates as well as gaining better access to the EU since Ethiopia has favored nation status with Europe. For now, most of the jobs leaving China are lower technical level position relying heavily on cheaper labor. However, this is also how it started in Europe and the US.

They are not alone. Crocs reported that they expect to manufacture 65% of their products in China in 2012 down from 80% in 2011. Coach will reduce their overall production in China by 50% by 2015 down from 80% in 2011. Direct investment while still the largest with over $ 112 billion in 2011, it has declined 3.7%. Couple this with the slowdown in the economy; it appears that things are changing for China and China manufacturing.

Where will the manufacturing move to. For the textile industry it appears to be moving to other Asian countries but for some sectors, it appears to be moving west and the US could be taking advantage of this shift for many industries. For pharmaceutical and medical devices, there are good reasons to see this coming back to the US and Europe in general.

Apple announced that it would shift some of the Macintosh products back to the US. Apple plans to invest $ 100 million to return production and assembly of some of these products to the US (2). Casabella, a manufacturer of cleaning products and kitchen gadgets moved manufacturing to China over a decade ago. However, today, they are planning to move again and building a plant in Mexico (3). Trellis Earth products Inc., a US bio-plastics producer is moving from China to Rochester, New York (4). While these are all US based companies coming back, who would have thought that Lenovo, a Chinese company would shift manufacturing of some of the tablets, PC's, servers and workstations to a new plant built in North Carolina (5). Cost and logistics were key drivers for this.

This is affecting industries across the board. While large pharmaceutical companies and producers continue to invest in China due to its growing economy and large middle class with disposable income, some companies are reconsidering the proposal. Ranbaxy decide several years ago to exit from its joint venture with a government controlled company in China. For others, the investment is geared to producing only for the Chinese market and potential capacity will be to support and supply the China market (6). Master Lock based in Wisconsin, has already brought back 100 jobs to the US and Nat Labs is now producing dental molds in Florida instead of China (7).

For the west, things are starting to look up a little. For sure, there will not be an abandonment of the Chinese market but it would seem that there are very good economic and business drivers to invest in the west. After a decade of outsourcing to China and India it does seem that the trend to move some production back is starting to change. There are a number of factors that affect this.

John Higgins, CEO of Neutrx, a LED lighting company announced that it would close its factory in Shenzhen, China and move back to Houston. According to Mr. Higgins, labor rates in China a decade ago where 58 cents per hour and today they are $ 3 per hour expected to climb to $ 6.00 by 2015. While this still may seem cheap to some, the Boston Consulting Group argues that the American worker in particular in combination with technology is 3-4 times more productive (7). This makes the base labor rates insignificant.

Mark Coopersmith, CEO of ET Water Systems decided in 2005 to move its manufacturing to China to take advantage of the lower labor rate. He quickly realized that there is much more to the cost of goods than just lower labor rate as he started to become increasing less profitable. When compared to California, the cost difference between California and China was 10%. When he factored in the custom duties and fees as well as the large amount of capital he had tied up in big shipments of good which could take weeks to cross the ocean, moving back to the US was an easy decision. He also felt that as a producer of sophisticated irrigation device, that innovation suffered die to the large distances (8).

To start, it is important to take a quick look at what is happening in China today. Overall the economy is slowing down in many of the sectors. The China Daily reported several things in June. The steel industry built capacity for steel production in the range of 400 metric tons per year from 2004 to 2012. Today, there is an overcapacity of steel production in the range of 200-300 metric tons per year. In addition, there has been a dramatic drop in the profit as a result of these glut and profits have declined by over 98%. The PMI (Purchasing Managers Index) declined in May in China while rising slightly in the US during the same period. This is a strong indicator of the slowdown of external orders. Direct foreign investment placed $ 112 billion in China in 2011 which is still the largest of the foreign investment areas is still down 3.7% (9).

Karel Eloot of the Mckinsey group discussed many of the potential problems with the China manufacturing which are all not related just to labor costs. The manufacturing segment in China has grown rapidly. As a result, they do not have the highly trained managers as we see in the west. There is a lack of skills in coaching and the management is often dedicated to only putting out fires. In addition, there is a high turnover rate in Chinese factories. Michael Wang also of the McKinsey group pointed out that there is overcapacity and competitiveness in China factories today. The manufacturing segment sees growth decreasing while the labor costs are increasing and the market volatility is also on the rise. Also, we see the supply chains becoming much more complex.

The overall regulatory climate in China seems to be changing as well. This will continue to add more cost as well. The FDA opened offices in China and have plans to significantly increase the budgets for these sites. They will increase the number of inspections. Already the sFDA, the Chinese equivalent to the US FDA has adopted new GMP guidelines that mimic the ICCH guidelines. In fact, the time required for certification in China for a drug producing plant could take several years. We also see tighter controls over clinical trials and recent arrest for bribery charges are indication that laws will be obeyed and standard raised.

EPA type issues are also being driven forward. Chinese authorities have started to enforce environmental rules as citizens have taken to the streets to complain about metals in the soil pollutants in the water and soot in the air. People are routinely blocking projects especially in regions in the prosperous coastal regions. Factories are being forced to close and relocate outside of the major cities due to pollution. This will result in higher costs and a potential disruption of the supply lines (13).

In the meantime, demand is increasing. The middle class is growing and they are demanding more sophisticated items. China is becoming the biggest market for luxury items in the world. They are demanding better quality of everything from medicines to phones. The urban population has higher expectations in terms of wages and working conditions and louder objections to pollution that often comes with low-level manufacturing. All of this erodes at the cost advantage that China once owned.

The employee turnover in China and India also present a number of challenges. For one, it would seem that Chinese employees are ready to move frequently if they cannot get addition wage increase. This will only result in higher labor cost. In addition, multinational companies tend to be run by ex-patriots and this often can leave little upward mobility for the Chinese worker and can also result in a lack of skilled leaders as the McKinsey report mentioned. This also can result in some issues around Intellectual Property and the potential loss. Smaller foreign investors began to pull back as they realized that the risk of the loss of their intellectual property was great and the government was doing little to control this (13).

Despite what one may think, by 2010, China was facing a growing labor shortage. For one, there is a lack of certain skilled position but in addition, rural workers did not want to move to urban areas to work in dreary factories. This has led to an ever increasing level of discontent in the labor force. Foxconn which employees over 1.2 million workers decided to automate and last year had 10,000 robots in China.

The question however is always does this actually translates to business and are we seeing more being done in Europe and North America. For some industries, we can see that business is either moving away from China and India. Ironically, some of the same drivers that pushed us to China and India are now pushing companies to other even lower labor cost countries. For other the balance of higher productivity and stable wage bases can help move things back. In addition, for the US, our overall energy costs are much lower. In addition, western companies have invested heavily in automation to improve productivity and lower cost.

All of this is great for cars, cloths and light bulbs but can we translate this into the production of drugs and medical devices? For pharmaceuticals, the approval process is a long and tedious process that requires not only patience and flexibility, it also requires high levels of compliance and regulatory expertise. Many companies are looking past just the simple cost models and trying to see that the real costs are and does a specific region have that much of an advantage.

There are series of considerations related to moving your production to China and India. Once cost no longer becomes a factor what are the other considerations. Consider that a growing number of compounds are not discovered by big pharma but by the emerging pharmaceutical companies. These companies look at their products a little differently. Most likely, they are going to develop these compounds to Phase I or Phase II before finding a partner. They are looking for strong technical partners who can rapidly work with them and show some signs of flexibility. While cost is important, technology and regulatory compliance are more important. In addition, these groups often have a more

limited staff and do not want to be burdened with logistics and other related problems. Intellectual Property is also a key consideration for emerging pharmaceutical companies. "To preserve IP, many emerging companies exclusively prefer to work with western vendors, although they may be open to source raw materials from India or China" reported James Schwindeman, Executive VP of Rohner Chem, a Swiss CMO. With US and EU compliance issues becoming greater, these companies are looking for partners who have a long history of regulatory compliance and understand what is required to produce drugs. In addition, they need groups with stronger R&D and analytical experience to assure manufacturing of their compounds. Since this material will be used by the innovator to support clinical trials, this often can give the advantage to local producers which can have more direct contact with the clients.

The 10th Annual Report and Survey of Biopharmaceutical Manufacturing Capacity and Production looked at the top position for outsourcing biopharmaceuticals. In 2012, it appeared that China and India would be the countries to choice. It does not seem that that is the case today. The US took the top spot followed by Western Europe. While India and China has been the desired location, this year's resulted pointed to an increase concern related to the regulatory issues. Over 46% of the respondents said that it was very important. In addition, the study cited that with the outsourcing of more core activities in earlier years, the requirements for a higher level of compliance and a greater experience in this area are driving companies back to the west. In addition, there has been a heavy investment in China and India but this has been focused more on biogenerics. Western companies are turning to facilities especially in the US which are underutilized and can rapidly and cheaply make clinical materials. Currently, the US hold a considerable lead in manufacturing capacity with a reported 35.9% followed by Western Europe with 26.1%. For China and India, they are both in the range of 8%. Considering the large population base in India and China, they need to eventually develop this capacity and could have some companies look east again in the future (14).

For small molecules, we cannot be 100% sure that all of the growth is responsible for re-shoring or out-shoring to the west but it is important to note that most suppliers in the west have seen increases in sales over the last years. As the pipelines continue to be weak, the western companies seem to be benefiting. This is not to say that we do not see growth in India and China but it would seem to say that outsourcing to companies in North America and Europe has improved and is showing signs of growth.

In Europe and the US most of the major Contract Manufacturers (CMO's) reported overall improvement in their fiscal results. Rudolf Hanko, CEO of Siegfried was quoted that "Increasing quote requests show that interest in cooperating with an outsourcing partner is growing…" Tom D'Ambra of AMRI reported that they saw an increase of 9.2% in revenues. Cambrex saw increases by 9.2-12.6% in local revenues and expect 2013 sales to increase by 8-12%. "Rohner Chem has received an increasing number of inquiries in the last several years, where the client is specifically looking to place the project at a western CMO," reported James Schwindeman, Executive VP of Rohner Chem.

Roger Laforce of Zach–Zambon Chemicals, Italy, also notes an increase of requests and commitments from both existing Western clients and new prospects from venture funded pharmas. "They are looking for a reliable partner with the necessary toolbox, regulatory skills and experience, strong project management and the necessary financial flexibility to manage the higher risks involved when working with venture companies. The European Fine Chemicals industry has developed these skills building on a more than 150 years chemical culture which is difficult to match in 30-40 years since when Asian companies have started to be involved in this type of business. We still can stay ahead of the pack if we play our cards well."