16 November 2010

EC2374 – Essay

Chinese industries: advantages, disadvantages, and the prospects to become global leaders.

Group Details

Tutorial Group: DE2: Even Thursdays – 1000hrs to 1200hrs

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1. Introduction

1.1 Chinese Industrialization

The industrial sector has commonly been associated with an intermediary stage of a country's growth. Emerging from the roots of agricultural focus, most countries are often expected to undergo a slow but consistent transformation from the primary sector all the way to the tertiary stage where the service industry blooms. However, before doing so, the industrial sector remains a key linkage. It was the golden industrial age that Europe enjoyed which gave it the very advantage over an economically bustling China of the 1700s. The superiority of the West spanning a few centuries brought hardships both on the economic and military front to China. Reeling from years of humiliation, it is not surprising that Chinese leaders have often looked towards industrialization as a key step in regaining past glories. Many leaders made continual pushes for it even though the economy was in no means ready. The Great Leap Forward signaled an overzealous push for industrialization and fell promptly due to its lack of agricultural support. China attempted to not just bypass agriculture but also the light industry, favoring the awesome production strength that the heavy industries brought. Influenced by the neighboring Soviet machine, the Chinese overlooked its labor potential and continued to pursue what they were not comparatively advantageous at. However, with reforms in 1978 and the throw back to embracing labor-intensive industries, the light industries began picking up albeit informally. China had, after numerous false starts, finally reached the famed second stage of development.

1.2 Scope & Structure

This paper explores the industrial sector of China with a keen eye on its advantages and disadvantages. The sector will be analyzed as a whole before being broken up into its subsets of the heavy and light industries. This paper focuses on the steel and automobile areas of the heavy industry and textiles for the light industry. Finally, with a holistic view of the industrial sector, we will then evaluate the prospects for China's most promising area with regards to global leadership.

2. A General View of Strengths and Weaknesses

2.1 Advantages of Chinese industries

2.1.1 Government support

China industries receive much government support in developing their competitiveness. The government has been vigorously facilitating state-owned enterprises (SOEs) to develop their competency, through measures such as financial patronage. This is an attempt to "even out the level playing field" in this global economic competition. (Schortgen 2009, p. 38) Many economic development zones and high-tech parks are set up in different coastal regions, with the powerful support from local Chinese government. Firms can apply for government programs such as the Innovation Fund for Small Technology-based Firms (Innofund) and other tax incentives (Ben 2010). Besides, these high-tech parks function as "effective incubators" for firms which are keen in hunting for foreign "new technologies and strategic partners", easing the building of relationships with foreign firms. By establishing these relationships with foreign firms, Chinese industries can develop their technological and innovation

capabilities" through technology transfer from abroad, thus enhance their competitiveness (Ge and Daniel 2009, p. 60). Therefore, the government supports and enables Chinese companies to be more globally competitive, an advantage that Chinese firms has.

2.1.2 Low cost of production

There is a huge labor supply in China in which Chinese companies can utilize. There are approximately 340 million surplus rural laborers, which growing Chinese firms can employ (Zeng and Peter 2007, p. 29). Basic wage rates are likely to be suppressed with such incessant supply of underemployed labor, thus enable Chinese firms to continue to tap on this low-skilled, but cheap labor pool in the near future.

Besides non-exhaustive unskilled labor supply, there is also a massive and rapidly increasing supply of highly skilled labor that companies can employ to strengthen their competitiveness in high-tech, knowledge-intensive industries. For example, in 2005, 3.4 million of fresh graduates entered into the job market, contributing to the skilled labor supply (Zeng and Peter 2007, p. 29). In China, highly skilled engineers for instance, are available at low-cost. In Xi'an, 47 universities and higher learning institutes produce engineers with master's degrees who can be employed at just US$730 per month (The Straits Times 2010, p. B7).

In general, China's wage rates remain between five percent and 20 percent of those in United States (Zeng and Peter 2007, p. 29). Thus, China industries have an advantage in its cost competitiveness with easy access to low cost skilled and non-skilled labor.

However, we have to acknowledge that there is increasing pressure for the labor wage rate to rise with recent labor strikes. Nonetheless, this does not signify the discontinuation of low labor costs, since there is still a huge rural labor surplus, which might keep wages low for the time being.

2.1.3 Achieving economies of scale through horizontal and vertical integration strategies

Majority of the sectors of the Chinese industry had low level of concentration, in which individual companies account for a small percentage of the total production of the whole sector. For example, the entire production of more than 200 auto producer companies is lesser than that of General Electric (Jin 2008, p.4). Hence, it is necessary for the Chinese companies to take on approaches of vertical and horizontal integration so as to generate economies of scale, which is the decreasing in unit cost of production when companies increase their scale of production. Besides achieving economies of scale, these integration strategies help companies to broaden their extent of activities, and gain more power over the value chain. (Jin 2008, p.4) Through these integration tactics, Chinese companies are able to harness economies of scale, a lower cost of production, hence achieve advantage in cost competitiveness.

2.1.4 Flexibility of Chinese firms

Economic environment in China has been ambiguous and hazy, due to the trial-and-error nature of economic reforms, with its economic reform policy publicly named “cross the river by touching and following the riverbed pebbles”. (Williamson and Eden 2009, p. 84) To be able to overcome these economic uncertainties, Chinese firms have learnt to speedily acclimatize to changing economic situations. (Williamson and Eden 2009, p. 84) Such flexibility of Chinese firms is crucial to ensure their survival in the ever-changing global commerce climate, hence acts as an advantage since it increases the strength, thus competitiveness, of firms.

2.2 Disadvantages of Chinese industries

2.2.1 High barriers of entry due to domination of SOEs in some industries

China’s state-owned enterprises (SOEs) are still dominant in certain crucial industries such as utilities, heavy industries, and energy resources industries. These areas are highly concentrated and dominated by just 159 large SOEs (GlobalTenders 2010). Moreover, SOEs have been returning to the lucrative industries which were resided by private firms, such as real estate, iron and steel industry, by making use of the “policy barriers” and their control over credits (CSC staff 2009). SOEs are also given priority, even in locales with developed private economies. For example, an SOE petrochemical development was introduced – with the aim of developing a petrochemical industrial cluster to sustain its GDP growth – in Taizhou City, where 95 percent of Gross Domestic Product (GDP) was generated by private companies (CSC staff 2009). SOEs distort economic incentives in the market economy, since SOEs have the advantage of control in funding and state-backing. This will increase the barrier of entry into SOEs dominated markets. Also, these SOEs will crowd out private enterprises out of the industries, even though they are less efficient. Hence, with this continued supremacy of SOEs, Chinese industries will not be competitive.

2.2.2 Lack of use of technology

Chinese companies are at a disadvantage in “proprietary base technologies”, as compared to reputable international competitors. Chinese firms are short of adequate knowledge and international experience “to drive proprietary approaches into the market” (Williamson and Eden 2009, p. 75). Chinese companies found it challenging to keep pace with the dynamic product cycles by producing reliable merchandises in time. This can be clearly seen from the poor penetration of Chinese firms in the mobile phone handset business at the start of its product lifecycle (Williamson and Eden 2009, p. 75). Thus, Chinese firms are not technologically competitive to be able to compete in the global market in producing novel high tech merchandises.

Escalating trade deficits in China’s high-tech industries suggests its soaring demand and reliance on sophisticated imported technology. These trade deficits have been widening steadily in most high-tech sectors for instance electronics and computer-integrated manufacturing (Cao 2004). High-tech Chinese industry is export-driven, but is founded on cheap labor, imported technologies and complicated component parts. China high tech industries are just assembly plants with little value-add to imported manufactures. China’s “high-tech” products only have a low profit margin that can be as low as 2 to 3 percent (Cao 2004). Hence, these show that China’s industries are not technologically competitive even in high-tech industries.

3. China's Heavy Industries

China has attempted to revitalize its steel, coal and mineral extraction industries. There are currently plans such as the "Northeast Revival Project" (东北复兴工程) to revitalize and restructure the traditional heavy industry in the Northeast region of China which includes, Liaoning, Jilin and Heilongjiang province and open up the market through cross-border acquisitions, mergers and exposing the State-Owned-Enterprises (SOEs) to competitions (OECD, 2006). There were two main aims for this project, first, to create a more balanced economy that relies less on the coastal areas for economic growth. The second aim is to revitalize the heavy industrialization projects which were greatly hurt by reforms. The Northeast region's contribution of industrial output value decreased from a remarkable 17% in 1978 to 9% in 2004 due to the reform (CBM, 2006-2007). We will now look at the steel and automobile industry, zoom in on their individual advantages and disadvantages and use them as a proxy to understand heavy industries' role in China.

3.1 The Steel Industry

The steel industry paints a two sided picture. While the awesome brute strength of the industry is unmatched, it rears its ugly side when one takes a second look at its efficiency. This may look like a repeat of its treacherous history, but China's ascension into the World Trade Organization (WTO) and the multiple reforms it has put in place will do well to cause one to reconsider before thinking along old lines.

3.1.1 Advantages

3.1.1.1 Special Governmental Focus

The steel industry remains as the government's focal point in its secondary sector. Even in the recent reforms, China has continued 'grasping the large, and letting the small go' (Naughton, 2007). This move suggests consolidation and the removal of possibly inefficient peripheral ex-SOEs. The reduced number of state controlled firms has continued to hold the lion's share of total assets (Price et. al, 2007). In the eyes of most commentators, this is a source of worry but we believe that this is effectively a strengthening pillar of the industry. The steel industry, in short, will never be allowed to fail. There are two key reasons for this. Firstly, the steel sector's performance is a direct factor in China's unemployment rate. China who has emphasized constant GDP growth not just for prosperity but also for social stability is surely casting a worried eye on unemployment. The CCP has it in its key interest to continue ensuring that the 3 million jobs, coupled with the tremendous dependence by various public services such as health care, pensions and housing, continues to run smoothly even if it is inefficient. Handan Steel Co. employs more than 28,000 workers directly in a city that sees a larger than 50% unemployment rate. Should the corporation turn to efficiency, over 16,000 workers could be laid off (Brizendine & Oliver, 2001). Even though efficiency makes economic sense, the social parameters that China operates in will argue for continued underemployment just to keep employment and thus social stability high. Secondly, unlike its past experiences, China has sufficient reserves to continue keeping the steel industry up in the long run. It is not facing a short sighted battle to keep its steel sector alive and there is little chance that it may run out of resource supporting this sector.

3.1.1.2 Massive Production Capacity

China is already a world leader in the production of steel in terms of quantity. The 123 million tons of steel produced (Brizendine & Oliver, 2001) has far outstripped any competitor in the world even though it is hazardously inefficient. The prospects for this industry are clear and with greater political will, the industry has the potential to bloom in the future. With the backdrop of reforms creeping into the heavy industry, albeit at a snail's pace, there is good reason to believe that this currently inefficient but massive production capacity can soar higher with less governmental hand holding.

3.1.1.3 High Domestic Demand

China's massive production is matched with a ballooning demand. While China produced 22.8% of steel globally in 2003, it consumed 27.2% on the global arena (International Iron & Steel Institute, 2004). This demand is not considered anywhere near saturation, instead it is predicted that steel demand will continue to rise to hit 330 million tons by end 2010 (World Steel Dynamics, 2005). Adding on to that, China's steel consumption per capita is one of the lowest in the world. It stands at 50% of the United States and Europe, only 33% of Japan and barely 25% in Taiwan. There is certainly a strong potential in regards to demand for the steel sector. While it can be argued that a substantial portion of China's produced steel may not meet the required standards for certain products, it is still able to feed the enormous local demand for steel. While low grade steel is in abundance, such steel finds its demand in the construction sector which is another booming industry in its own right. The quality of steel may not meet global refined standards but is largely usable by many of the other industries at China's current stage of development (Pei Sun, 2005). As such the high potential of production coupled with the ballooning demand paints a rosy picture for the steel industry in China.

3.1.2 Disadvantages

3.1.2.1 Lack of Top Grade Inputs

The production of steel, especially for higher grade end products, requires top grade Iron ore which China lacks locally. China's voracious appetite for this locally absent ore can be seen as it surpassed Japan in 2003 to be the largest ore importer in the world (Trench, 2004). Even though the Western region is rich in minerals, a lack of a top grade class of ore spells dependence for this sector that the Chinese economy and its social stability is heavily reliant on. While, dependence spells limitations for better production levels of higher grade steel in the future, Japan and South Korea have faced similar problems and solved them. The construction of large scale tidewater mills has enabled the aforementioned two countries to turn internationally competitive in this sector (Pei Sun, 2005). China would do well to adopt such methods to improve the cost of importing such top grade inputs.

3.1.2.2 Low Productivity Workers

While worker cost may be low, one must consider the productivity of each worker. Developed nations often find their steel productivity to lie around 400 tons per employee. China's steel productivity rate is less than a tenth of this. At a miserable 37 tons per employee, China is looking at significantly low output per worker. (Brizendine & Oliver, 2001)

3.1.2.3 Poor Top Level Management

Low productivity does not end with workers. Looking further up the management hierarchy, it is clear that China faces a larger cauldron of problems linked to its centrally planned history. As the CCP (Chinese Communist Party) still directly manages the steel industry, promotions and appointments of managers are based on politics rather than merit. Besides that, the injections of funds and even the approval of quick fire mergers are done with little emphasis on performance criteria (Brizendine & Oliver, 2001). Should the management at its highest level be continually influenced by politics, there is little chance productivity at lower levels of the corporate hierarchy can be raised.

3.1.2.4 Low Quality Steel Output

As covered in brief detail above, the continual lack of top grade iron ore and its poor production process (low productivity workers and poor top level management) are the twin engines of low quality steel output. The consequence of low quality steel output lies in its ability to export especially in China's ascension into the WTO. While the steel industries in the United States and other countries have no fared better (Pei Sun, 2005), there is no doubt that the lower grade steel produced by China will find foreign demand hard to come by as more and more countries have increased their need of higher grade steel. Some Chinese industries such as manufacturing have turned to foreign producers of steel to support its own production processes (Price & Nance, 2009). Thus the implications of low quality steel may not be of utmost priority now but it is an impediment for the future.

3.1.2.4 Excess Capacity

The problem of serious excess capacity has been plaguing Chinese industries in an extensive range of sectors in the heavy industry especially Steel. According to National Development and Reform Commission (NDRC), in 2008, facility employment rates were only 76 per cent for steel, 75 per cent for cement and 73 per cent for aluminum amongst others (DeWeaver 2009). These reflect the widespread existence of unproductive plants, which are hard to be remove. This is a result of its "socialist market economy" in which "neither market forces nor central planning" is powerful enough to wipe out such uneconomical production (DeWeaver 2009). Such inefficient production plants results in wastage of resources, and also negative consequences on the environment. Therefore, the problem of excess capacity, especially in steel, exposes the problem of Chinese industries' economic inefficiency.

3.2 The Automobile Industry

Automobile is considered a rather new heavy industry as compared to the traditional heavy industries such as steel, energy production and petrochemicals. This new industry is rapidly rising and has been given more emphasis by the China government especially when it overtook U.S to be the largest producer of automobiles in 2009 with automobile sales reaching 13.6 million units, compared with 10.4million automobile sold in the US (Hansakul, 2010).

3.2.1 Advantages

3.2.1.1 Government Special Incentives

There are various economic incentives that have attracted many provinces and regions to start venturing into the automobile industries and these regions are now relying on this sector to drive their economy. In the Economic Stimulus Package, ten industries which include automobile, iron and steel, textiles, equipment manufacturing, shipbuilding, electronics and information technology, petrochemicals, light industries, nonferrous metals and logistics were given incentives to rejuvenate themselves after the global financial crisis in 2008. The package encourages industry integration in textiles, iron, steel and automobile companies which will be discussed in section 3.2.1.3 under "Strong Linkages". Other incentives include preferential land and tax policy in which automobile purchase tax is lowered and automobiles are made available to the countryside (People's Daily Online, 2009). Both policies are made to stimulate demand for automobile.

3.2.1.2 Domestic Driven Demand

Automobile's main advantage is that its demand in China is largely domestic driven, resulted from the rise of the rich middle class in China. The percent of households with an annual income of about or above 65,000 Yuan ($9714.5) had risen from 7.8% in 2005 to 22% in 2008 (Hansakul, 2010). This domestic driven demand corresponded to the recent policy that focused more on domestic consumption and relying less on exports of goods to other countries. The focus on domestic consumption is crucial as importing countries might set up protectionism policies in order to keep their balance of trade positive or to protect their own automobile industries. Therefore, a less reliance on foreign demand for automobiles in China will provide greater security and stability for the automobile industry, hence allowing for more stable growth. We can expect further growth in this industry as the ownership level of automobile is still relatively low at 10.5 cars per 100 urban households (Hansakul, 2010).

3.2.1.3 Strong Linkages

The automobile industry has strong linkages with more than 100 upstream and downstream industries, including steel, plastic, aluminum, glass and rubber. With all the linkages added together, their combined industrial output could add up to approximately 4 trillion Yuan (ERN, 2009). The production of automobile will bring about growth to industries such as electronics (sound system, navigation system), textiles (car interior, cushion seats), steel (outer body of car) and machineries. The automobile industry not only benefited the steel, electronics and textile companies, privately they also benefit from vertical integration with these industries. Thus. it will be able to get their raw materials at lower cost and also secure their raw material supply. Therefore there are strong linkages between the heavy industries in China and these industries are able to lower cost of production with such linkages. Thus, they can be more competitive in the global and local market.

3.2.2 Disadvantages

3.2.2.1 Green Movement's Impact

One of the key and most disadvantaged characteristics of the heavy industries is that heavy industries are energy intensive industries causing a high reliance on coal for energy production. China is currently the largest producer and consumer of coal in which coal makes up 70% of China's total primary energy consumption (EIA, 2008).

Therefore, heavy industries are indirectly major contributors to the greenhouse emissions in China, much more than what light industries are emitting. China as well as other developing countries e.g. India are urged by the developed countries to cut down on greenhouse gases emission, placing stress and limitations on the growth of heavy industries in China. This green push has taken effect as shown in statistical reports, whereby growth of industrial profits in China grew slower in the first eight months and heavy industries had the biggest slowing of growth. In ferrous metals smelting and processing sector, profits growth rate dropped to 99.7% from start of year till August and decreased from 3290% for the first five months while smelters and processors of non-ferrous metals saw profits rose of 130%, much lesser than the 330% during January to May (Zhang, 2010).

3.2.2.2 Overcapacity of Automobile Industry

The growth of the automobile industry, fuelled by growing domestic demands seems to be a good sign. However, problems of overcapacity in terms of oil consumption, pollution and traffic congestions are sprouting. A rapidly rising number of new vehicles hitting the roads would put pressure on China's oil consumption in which 55% of domestic oil consumption is imported oil as of August 2010 (IB Times, 2010).

A growing number of vehicles on the street would pose the problem of traffic congestions, causing a need for review of town planning and officials solving the problem of congestions. This is especially true in large cities such as Beijing, where the road system can accommodate 6.7 million vehicles with the present situation of number of registered cars in the city was 4.5 million in September and is expected to reach 7 million by 2015. Reports have also shown that traffic chaos resulted in 140 traffic jams in a single Friday evening last month (IB Times, 2010) further emphasizing the problem of traffic congestion that China is plagued with.

Pollution is also a main cause of concern for the automobile industry. Ministry of Industry and Information officials estimated that by 2020, 200million motor vehicles will be on the streets. Environment Official stated that about 10% of cities are plagued with serious air pollution and automobiles are the main sources of the pollution in most of the cities (China Daily, 2010). Minister of Science and Technology Wan Gang stated that automobile exhaust emissions accounted for 70% of air pollution in China's big cities (BusinessGreen, 2010).

Therefore, a balance has to be struck between the focus in developing the automobile industry and the rising domestic demand of automobiles in China. The problems of overcapacity can be better tackled with better town planning and the introduction of green vehicles.

4. China's Light Industries

4.1 Characteristics of China's light industries

The light industry in China is one of the biggest contributors to the China's rapid economic growth. It is reported that the total industrial production value of China light industry has been 1576.384 billion Yuan in the first 10 months of 2001. From the figure, the major Chinese exports are from light industry. Between year 2002 and 2004,

exportation figures have increased greatly, with a positive change of 45.7% in the electrical industry producing television accessories.

4.2 Advantages

4.2.1 Low Labor Cost

Workers in the light industry are enjoying a similar wage rate as compared to those of the heavy industry. Within the light industry, the wage rate differs between the residents and non-residents workers whereby the non-residents are offered a relatively lower wages. This pool of cheap labor contributes to the low cost of production of the light industry. In comparison with Taiwan, which focused on manufacturing light products, China has a comparative advantage over them as China has one of the cheapest labor markets in the world. They are highly competitive in terms of cost as compared to other countries.

4.2.2 Availability of Raw Materials

Another advantage for China's light industry is that raw materials are easily available. There is a large abundance of natural resources in China especially in the northern side. With the availability of raw materials, light industries' producers can save on their import costs, hence incurring a lesser cost and an increased in profit margins. This will be an absolute advantage when China exports these products. They can earn high revenue from these low cost production products.

4.2.3 Expanding Local Consumption

The government's support that the light industry in China received also makes a difference. The government has decided to expand urban and rural consumption to increase supply of light industrial products on the domestic market. At the same time, it has been ensuring good foreign relationship to increase export volume. There was also an open door policy beginning from 1978 whereby productive resources are allowed to move towards China's area of comparative advantage, which is the light industry. Between 1978 and 1985, the light industry in China grew by 130% while the heavy industry only expanded by 70% (Keijirō Ōtsuka, Deqiang Liu, Naoki Murakami, 1998).

4.3 Disadvantages

4.3.1 Low Quality Labor & Short-Lived Low Cost Advantage

Second, China's cheap labor force is facing increasingly competition from other low waged countries like Indonesia and Vietnam. Chinese labor has become more expensive with a rise in human capital via education. Responding accordingly, the government as enacted in January 2008, a new labor law that significantly raised wages. Companies in Guangzhou are paying 1,160 Yuan (about 165 U.S. dollars) per month, 13 percent more, for new staff this spring, 2008. In a nutshell, China is becoming less competitive in terms of their labor costs, and is losing out to other Southeast Asia countries with cheaper labor.

In addition, due to technological advancement, light industries do not require large amount of labor but instead, educated and competent ones. With lesser competent workers, China cannot compete with other countries that

are more adapt with machinery and can produce goods that are cheaper in a shorter time period. Furthermore, while China is blessed with abundance of natural resources, but inefficient use will cause rapid deterioration. Therefore, there is a need for skilled labor and better use of machinery. In a nutshell, if China is unable to keep up with the advancement as compared to other countries, they will be at the losing end and are set to lose their customers, hence demand.

4.3.2 Rising Cost of Inputs

The costs for inputs are rising as world commodity prices surged due to inflation. The overall cost of raw materials, fuel and power surged 9.7 percent from 2007. Analysts forecast that textile prices would rise another 5 percent to 10 percent after March as a result of more expensive cotton and nylon yarns (China embassy, 2008). With increasing input costs and labor costs, goods produced by the light industries especially that of textile industry are less economically competitive and are likely to result in lesser demand.

4.3.3 Lack of Quality Products

Light industries focus more on quantity than on quality. Goods produced often are cheap but not able to last long due to their poor quality. With an increasing pool of supply all over the world with goods of better quality with the same price, the demand of “Made in China” goods is decreasing. Other than the quality, light industries are mostly export oriented. With the weakening of economies in other major overseas markets, and more customers outsourcing their supplies from other producers that are cheaper to lower cost of production, demand for China’s light industries goods are decreasing. For example, more than 1,000 smaller shoemakers out of some 6,000 went bankrupt last year (China embassy, 2008). To retain their economic competitiveness, China’s light industries producers should focus their sales on local consumers that are enjoying a higher income. Hodo Group, a domestic garment maker in eastern Jiangsu Province shifted last year to higher value-added garments, which proved to be a smart move as their revenue increased. Placing value on quality will result in more resilient demand during economic downturns.

4.4 Textile industry

The textile industry is an example of the few remaining competitive firms in light industry today. In China, many of the textile firms still use traditional methods to produce textiles. This industry played an important role in the development of the China’s economy. These textiles are China's major export goods and provide a high level of employment opportunities in China.

4.4.1 Advantages

4.4.1.2 Availability of Raw Materials

The greatest advantage is that raw materials for textile production in China are sufficient. Not only are raw materials available, they are very accessible as well. The immense supply of raw materials gives China a decisive advantage over competitors from other countries that do not enjoy the same abundance. This allows China to lower their cost of production. Textiles produced will be cheaper and more attractive to buyers.

4.4.1.3 Abundance of Labor

The abundance of labor has driven down wages. The cost of Chinese factory labor is about a paltry 64 cents an hour. As compared to United States, the hourly factory wage in 2002 was $21.11. This will definitely result in the large difference in the total cost of productions in respective countries.

4.4.2 Disadvantages

4.4.2.1 Increased Competition in Quality

However as explained earlier, China is facing increasing competition, which led to a decrease in exports numbers recently. Countries such as Indonesia are selling their textiles at a cheaper price and are of better quality. Similar to the disadvantages of the light industry in China, textile industry is lacking of high technology and effective equipment. Only 10 percent of the enterprises produce high-quality textile products. Many of the enterprises are still producing on a small scale and are stuck with traditional methods of production.

In conclusion, the light industry is still going strong due to its strategic location and well endowment of resources but its development is hindered by challenges such as loss of comparative advantage due to competition from SEA countries, depletion of natural resources. A specific industry, the textile industry was further elaborated upon to show specific advantages and disadvantages. For the light industries to further develop and maintain its status on global level, it ought to increase its competitiveness through cheaper and better goods that can be achieved using education to provide the know-how, advanced technology or R&D.

5. Prospects for Global Leadership

5.1 Definition

Much confusion surrounds the idea of leadership in different industries. While some point to leadership in export numbers, others specify global leadership as being ahead of the competition in terms of product or process technology. One proponent of this is Mowery and Nelson (1999). They argue that the ability to be ahead of the global production curve allows continued dominance as technological leaps are harder to catch up with as compared to absolute production figures. We will follow this definition as we believe it best encapsulates the idea of sustainable leadership.

5.2 The Business Environment

In order to better evaluate global prospects we will analyze them within the context of a business environment. Internal factors such as management, manpower and materials including level of technology have been discussed above. External factors have also covered as we discussed political and government aspects earlier. We will now move into the operating environment. As we have shown that China has a growing domestic market for a large proportion of their products, we now focus on competitors and intermediaries.

5.2.1 Competitors in Developed Countries

China holds a major advantage in the heavy industries in comparison with developed countries. The steel industry has been a problematic pain for not just China but also the United States and parts of Europe as well. Steel companies have merged over time to remain competitive. US Steel acquired Stelco Inc in 2007 and this is followed by multiple mergers, acquisitions and takeovers even in Asia as Tata Steel made in roads to South East Asia with acquisitions in Indonesia. The nature of acquisitions is not confined to geographical boundaries. Developed countries have often merged with mines and other input sources from less developed countries to remain competitive. This is similar to the state of China's need for better grade iron ore. In addition, steel industries often have the backing of governments to remain in business. The U.S. steel industry has been receiving heavy government support for more than three decades. This includes fund injections to protectionist methods (McGee, 2003). This makes the problem of government control in China seem less of a problem as steel in itself is a problematic industry for many developed countries. It is also seen as a core asset to developed countries to have a functioning steel production arm (American Iron and Steel Institute, 2005). The massive problems that China's competitors face gives good reason for hope in global leadership. This is augmented by promising technological advancement and economic efficiency plans that would be covered below.

In the automobile industry, China had the foresight of venturing into the green vehicle researching a decade ago. In the next 10years, China will invest over 100billion Yuan (14.8 billion US$) in an industry already built on its comparative advantage (China CSR, 2010). New energy automobiles were also pinpointed by the central government as an emerging industry of strategic importance (China Daily, 2010). In order to protect and further boost this comparative advantage, patent rights and standard setting were set up and emphasized to protect the researching company's efforts and 42 industrial standards and 1600 patents were issued (China Daily, 2010). China's push for green technology is mirrored by American companies such as Ford Motor. However, Ford has seen design flaws with its hybrid vehicles leading to low demand. In response, China aims to raise its annual production capacity of hybrid or all-electric green vehicles to 500,000 by the end of 2011 while North America will only be producing 267,000 (RightSite, 2010). This sector is indeed promising but is further down the pecking order as compared to steel because China's automobile global demand is not yet high compared to its American, German and Japanese counterparts.

5.2.2 Competitors in Less Developed Countries

While China has the capability to be a global leader in terms of the heavy industries, it cannot be said the same for light industries. The last two decades, China is the powerhouse of the world, at least within the textile industry (Rupp, 2008). However, this situation may not last for decades, and China may just be pulled away from its position of being the powerhouse of the world for textile industries. It faced competition not only from the western countries such as Egypt, but also less developed countries. India's economy is picking up as well and its textile industry is growing. It is now estimated to be worth US$52 billion and is predicted to reach US$115 billion by year 2012. India is also the world second highest cotton producer (Mapsofindia, 2010) behind of China. Although India is still lagging behind China, it is not too far behind. Its production levels are catching up on China. China does not only face threats from India, but also from the aforementioned Southeast Asian countries as well. Besides these,

Egypt has the potential to be a major player in the global textile market, especially since it is known for the quality of cotton it produces, and its favorable geographic location (Ghozzi, 2008). As such, China's textile industry is faced with numerous competitors all over the world, threatening its prospect to be a global leader in this arena.

5.2.3 Financial Intermediaries

Financial intermediaries are important especially for capital intensive industries. A strong consistent source of fund provision is important to the continued operation and move towards global leadership. It is here that we find problems with a rather infant banking and financial sector. China's financial sector is plagued by a relatively ineffective banking system and this is further worsened by a small and allocatively ineffective financial market (Barry Naughton, 2007). This signals problems for firms attempting to raise funds for investment into new projects. However, SOEs, especially those in the heavy industry, do receive a dominant share of funding and find it easier to raise loan amounts as compared to smaller non government linked firms such as those found in the light industry. This is due to their political and national interest links that exploits the relatively weak financial structure in China. While one may argue that the amount of bad debt is snowballing and measures to reduce non performing loans have yielded minor results, the comparative situation of financial markets in the West is not encouraging as well. U.S. firms are finding it tough as the 2009 crisis crippled many banks leading to the much feared credit crunch. As Chinese banking and financial reforms take shape, the future is not as bleak as it seems for China. Furthermore, the continued preferential treatment the heavy industries receive bodes well for them.

5.3 Favorable Industries for Global Leadership - Steel (Baosteel)

It is clear that the aforementioned factors favor the heavy industry to be global leaders. While both the steel and automobile industry stands a good chance, we believe that the steel industry has the highest prospects for global leadership. In this area we focus on Baosteel that has made leaps forward and seems best placed to be a global leader. This is due to the following factors:

5.3.1 Nationwide Steel Consolidation

While China has attempted to consolidate its steel sector in the past, it has taken even greater urgency in doing so in 2009. A new policy document released by Beijing in June targets consolidating more than 60% of domestic output to its top 10 steel production plants by 2015 (The Economic Times, 2009). This points to two key benefits. Firstly, Chinese steel giants like Baosteel, Angang Steel and Wuhan Iron and Steel will be better able to negotiate more favorable deals in the procurement of inputs from suppliers like Rio Tinto. This would give them more bargaining strength over a significant weakness in inputs. Secondly, steel industries in China can now control prices as an entity due to increased market power through consolidation. In its control of over 30% of the global supply of steel, such a move can see them bring in higher profits and have greater breathing space for product development which is crucial in our adopted definition of global leadership. While this consolidation is in no way a merger or acquisition, tight cooperation fostered or enforced by heavy government intervention and planning has made the environment conducive for coordinated production.

5.3.2 Baosteel's Vertical Integration

Certain Chinese steel producers like Baosteel have expanded beyond the common steel generating plants. Baosteel has delved downstream into steel processing via Baosteel Metal which is a wholly funded subsidiary. This subsidiary was formed in the integration of Baosteel Business Development Company and the Automotive Trade Company. Upstream, Baosteel is also involved in resource development via Baosteel Resources. This similarly wholly funded subsidiary specializes in iron ore and other metallurgical auxiliary materials required for steel production. (DataMonitor, 2009) In both its upstream and downstream integration, Baosteel not only has control but also greater working knowledge of the entire procurement to final production process. This integration enables it to better position its steel production processes.

5.3.3 Baosteel's Research & Development

As the key barometer we laid for global leadership lies in technological progress. Chinese industries have made inroads in the R&D sector. The Shanghai Baosteel Engineering & Equipment subsidiary provides its parent company with such a function. It also develops design and manufacture processes and complete plant and general project contracting (DataMonitor, 2009). This plunge into R&D is well supported by the government who has incentivized technology development. Incentives include tax breaks to make R&D 'virtually costless' and procurement preferences have been given to firms who have taken a serious R&D route. (Barry Naughton, 2007). It is clear that Baosteel's R&D efforts will not be short term and are well supported institutionally.

This wraps our belief that in the overall business environment analysis, China's steel industry is well placed for global leadership in the long run and Baosteel is the forerunner in this global race.

6. Conclusion

China's industrial growth has certainly been impressive by sheer numbers. Both its light and heavy industries have propelled the country forward, alleviating many out of poverty and pushing the development of the country by leaps and bounds. However, there remain serious concerns if their comparative advantage in most of the industries will last.

At its current standings and prospects, we believe that the heavy industry will remain as a bastion of growth for the time to come with the steel industry as its icon. The development of the steel industry and its movement to the R&D area has given it a strong potential to continue its dominance over other significant steel competitors like ArcelorMittal, Nippon Steel and South Korea's POSCO. China is also certainly aided by the fact that their competitors in the steel industries are struggling on multiple fronts under the business environment analysis. While China may face threats in global leadership in other sectors, the steel industry holds highly encouraging prospects for global leadership.

As for the automobile industry, with the growing domestic demand and China’s strong foundation in green vehicle research together with the emphasis that China has placed on the new energy-vehicle industry, it is no doubt that China already has an edge over the other automobile industries in other countries. The question will now lie in the global demand for Chinese automobiles.

The light industry is in danger of being surpassed by other low cost producers. However, it can still continue to be a leader if, and only if, crucial measures and improvements are made quickly.

In the long run, China will do well to begin concrete steps towards the service sector. For a country the size of China, policy changes takes decades to trickle down to actual nationwide movements and the falling advantage they have in most of the secondary industries must be tackled in advance in order to ensure continued growth and prosperity.

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