THE ROLE OF THE IRON & STEEL INDUSTRY IN CHINA’S FUTURE ECONOMIC DEVELOPMENT

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Distinguished industry leaders, experts and friends, I feel extremely honored to be able to attend the “LCA and Steel” Seminar on behalf of China Iron and Steel Association. Just now, a few leaders and experts have made in-depth analysis and had discussions on the sustainable development of the iron and steel industry, life cycle assessment and other issues. Life cycle assessment, or LCA for short, is the leading way, internationally, of identifying and assessing “green” products and “green” industries. It is reasonable to assume that conducting LCA will bring a number of benefits to the iron and steel industry, including promoting energy conservation and emission reduction during the production process, developing eco-friendly products for the iron and steel industry, finding a “green” and environment-friendly development approach, inspiring and enhancing the consciousness of innovation, and all in all turning a new page in the development of the industry. Today, I would like to share with you my opinions on the role of the iron and steel industry in the economic development of China in the future.

The iron and steel industry, which is one of the most important fundamental sectors of the national economy of a country, is one of the significant indicators of the economic power and comprehensive national strength of a country. Although China has a long history of iron and steel production, the iron and steel industry of China remained weak and under-developed for a prolonged period of time before the founding of the People's Republic of China in 1949. However, after sustained efforts since then, especially after China started to implement the policy of reform and opening-up in the late 1970s, China has managed to establish a complete
Iron and steel industry, which has made enormous contributions to national construction and development. In addition, boosted by China’s entry into the World Trade Organization at the beginning of the 21st century, the Chinese iron and steel industry has been developing by leaps and bounds, and fully meeting the demands brought about by the rapid economic and social development of China. At present, given the fact that China is still in the process of rapid industrialization and urbanization, the iron and steel industry, as a sector producing fundamental supplies, is expected to continue playing an irreplaceable role in the development and structural adjustment of the Chinese economy.

Firstly, the iron and steel industry is important in the Chinese economy and plays a crucial role therein.

The iron and steel industry of China, which is characterized by three features, namely, large in scale, involving a wide range of other economic sectors and closely related to sectors concerned, plays a vital role in the economic and social development as well as national defense of China, which is primarily reflected by the following facts:

One, the wide range of application of the industry's products. Iron and steel products, which have long been nicknamed “food of industry” in China, are the most widely used structural materials and the most important functional materials in the modern era. Iron and steel are irreplaceable in almost all economic sectors, including construction, machinery, automobiles, household appliances, shipbuilding, light industry, energy and transportation, among which, the construction industry is especially iron-and-steel-intensive. For example, the construction industry of China accounted for as much as 54.4% of the total iron and steel consumption in China in the year 2011. In view of this fact, it can be said that the development of the iron and steel industry of China not only lays a solid foundation for China to establish a complete
industrial system and promote the development of various sectors of the national economy, but also provides reliable support to major projects and programs in the country.

Two, the important position of the sector in the industrial system of China. The iron and steel industry of China, which is enormous in size, holds an important position in the industrial system of China. Take the iron and steel industry in the narrow sense for example, i.e., the ferrous metal smelting and rolling, the total output and fixed-assets of the industry in the year 2010 stood at RMB5.18 trillion (approximately USD784.84 billion) and 1.73 trillion (approximately USD262.12 billion) respectively, which accounted for 7.42%, and 8.19% of all industrial sectors of China combined. These figures placed the iron and steel industry in third place and second place respectively among the 39 industrial categories of China in 2010. Furthermore, the industry gained a total of RMB5.45 trillion (approximately USD825.75 billion) from its primary businesses in 2010, accounting for 7.81% of such revenue of the industrial system of China, ranking third in all industrial categories of China. The sector exported a total of USD36.82 billion worth of iron and steel products in 2010, making iron and steel the 8th-ranking major export products of China.

Three, promoting job creation. In 2010, the sector of ferrous metal smelting and rolling of China employed an annual average of 3.4563 million employees, making the sector the 11th biggest employer among all the industrial categories of the country. This sector and the ferrous metal mining sector employed among themselves an average of 4.10 million employees, equal to 79% of the total workforce of Tianjin, one of the most important economic hubs of China. Furthermore, given the role of the iron and steel industry in boosting the development of related industrial sectors and sectors oriented to serving the iron and steel industry (such as research and trade sectors), the industry plays a greater part in promoting indirect employment. In particular, for major base cities of the industry, such as Jiuquan, Panzhihua, Anshan, Benxi, Maanshan and Baotou, the iron and steel industry is vital in promoting employment and boosting economic
prosperity, and serves as the pillar of local economic development and social stability.

Second, the requirements of future economic development of China on the iron and steel industry

Since China started to implement the policy of reform and opening-up at the end of the 1970s, China has recorded more than three decades’ of rapid economic development. At present, China is at a significant stage of the process to build itself into a moderately prosperous country in all aspects, with its efforts to deepen reform and opening-up, and accelerate the transformation of the economic development model entering a crucial phase. In view of this, China will continue promoting its industrialization process, urbanization process and agricultural modernization process, while making adjustment to its economic structure along the way. Given the new situation that the country is expected to face, new requirements are placed on the development of the iron and steel industry of China:

One, the economic development and structural adjustment of China call for higher-quality iron and steel products to be manufactured by the iron and steel industry of China. The iron and steel industry of China has passed the stage of undersupply and is forecasted to face a number of key tasks in the next stage, namely, upgrading its products and improving product variety and quality. As a result, it is necessary for iron and steel companies to enhance their research and to develop of high-performance products featuring high strength, corrosion resistance, long life and light weight, and improve their technological competence related to such products.

Two, downstream users need iron and steel companies to provide high-quality and efficient services. With the transformation and upgrading of the downstream customers of the industry and the increasingly fierce competition in the iron and steel market, it has become an
irreversible trend for iron and steel manufacturers to enhance their interaction with users and improve their services. Hence, they must quicken their switch from the role of manufacturers to the role of service providers by developing in-depth processing and improving their overall capabilities of providing users with full and all-round solutions.

Three, the iron and steel industry of China must adopt a “green” development approach featuring resource conservation and environmental protection. The iron and steel industry is an energy-and-resource-intensive industry that has a relatively heavy impact on the environment and needs massive logistics support. As a result of its rapid development, China’s iron and steel industry is now heavily dependant on the outside world. In addition, China has raised its requirements on energy conservation and emission reduction, and the awareness of environmental protection among the general public of China has been growing steadily. Consequently, iron and steel companies are generally facing greater restriction in terms of resource, energy and environmental protection, and therefore should step up their innovation in such areas as technology, management and operation, so as to improve their resource efficiency for energy conservation and emission reduction. That is where LCA is useful: LCA provides an important approach to assessing the environmental friendliness of iron and steel products throughout their entire life cycle and processes and therefore provides an important basis for the “green” and environment-friendly development of iron and steel companies. Furthermore, the integration of the LCA and cost analysis is conducive to helping companies achieving both economic returns and environmental benefits by adopting a “green” development approach.

Third, the iron and steel industry should step up technological innovation, transformation and upgrading so as to achieve environment-friendly development.
Given the leaps and bounds that the iron and steel industry of China has made in recent decades, conditions are ripe for the industry to turn itself from being “large” in terms of size to “strong” in terms of quality and competitiveness. Faced with new opportunities and challenges, the iron and steel industry has both the need for and confidence in keeping abreast of the times, accelerating their restructuring and upgrading, seeking sustained innovation and development on the basis of existing achievements, and playing an even more important role in and making greater contributions to the development of the country:

One, the iron and steel industry should continue meeting the needs of users from traditional industries and providing reliable support to the development of China. For a considerable period of time in the future, iron-and-steel intensive downstream industries, such as construction and machinery, will continue playing a crucial role in the industrialization and urbanization process of China, and the development and upgrading of such industries cannot go without iron and steel supplies. Therefore, with the restructuring and upgrading of such industrial sectors, iron and steel industry of China will have considerable development potential. For example, the drive of the Ministry of Industry and Information Technology and the Ministry of Housing and Urban and Rural Development of China to promote the use of high-strength steel bars is just a case demonstrating the important role of the iron and steel industry in facilitating the restructuring and upgrading of downstream industries.

Two, the iron and steel industry should meet the needs of strategic emerging industries. In the future economic and social development of China, strategic emerging industries will be an important driving force. In developing the seven such industries designated by China, namely, energy conservation & environmental protection, new-generation information technology, biotechnology, high-end equipment manufacturing, new energy, new materials and new energy vehicles, the iron and steel industry of China is expected to fulfill a new mission assigned by the
new era in the development of China: to produce and provide high-quality and new-material-based iron and steel products necessary for such strategic emerging industries.

Three, the iron and steel industry should play a crucial role in advancing energy conservation and emission reduction and promoting a circular economy. In view of the fact that the iron and steel industry is a typical process industry that features a long industrial chain, close relations with other sectors, heavy consumption of resources and energy, and large logistics and shipment volume, the industry enjoys enormous potential of energy conservation and emission reduction, and remarkable advantages in developing circular economy. Therefore, the industry is expected to play a crucial role in China’s efforts to advance energy conservation and emission reduction and promote a circular economy.

Four, the iron and steel industry should play a pioneering role in technological innovation. China has announced that during the 12th Five-year Plan Period (from 2011 to 2015), efforts will be stepped up to form a technological innovation system in which companies will be playing a leading role, so as to enhance the country’s capabilities of original innovation, integrated innovation and re-innovation based on import and absorption. In recent years, the technological innovation system of the iron and steel industry of China has been developing rapidly and research institutions have been set up in companies of the industry and undergoing sustained improvement. As a result, the industry’s capability of technological innovation has been enhanced, and many technological achievements have been made. For example, of the top 10 state-accredited enterprise technology centers in the annual assessment in 2011, 4 are from the iron and steel industry; of the top 10 enterprise technology centers in terms of spending on science and technology, 3 are from the iron and steel industry; and of the top 30 such centers in terms of the number of patents held, 5 are from the iron and steel industry. Thus, it can be said that the iron and steel industry of China is one of the frontrunners in all industrial sectors of
China in terms of technological innovation. In the future, the iron and steel industry should fully utilize its existing advantages and seize the opportunities to maintain and enhance its leading role in technological innovation, so that the industry will not only be able to export high-quality products and services, but also export first-class technologies and equipments.

Five, the iron and steel industry should play an active role in cultivating and developing internationally competitive large enterprise groups. The iron and steel industry of China is large in size, with its output of crude steel accounting for 45% of the world’s total. In recent years, Chinese iron and steel companies have been expanding through mergers and acquisitions. For example, 4 out of the top 5 crude steel producers of the world in 2011 were Chinese companies. In addition, Baosteel Group, Hebei Iron & Steel, Shougang Group, Wuhan Iron and Steel, Sha Steel, Anshan Iron and Steel and Xinxing Cathay International Group have been included in the Fortune 500 companies and have become reasonably competitive internationally. With the efforts of the iron and steel industry of China to advance mergers and acquisitions, optimization and upgrading and promote the efforts of “going global”, which are the leading players in market competition, more and more Chinese iron and steel industry companies will enter the world stage, and leading Chinese companies will become more and more competitive globally, which will play a positive role in raising the profile and competitiveness of Chinese companies on the world stage.

Retrospectively, ever since their inclusion into human life, iron and steel have been crucial in human civilization and integrated into almost all aspects of life and work of human beings. So far, it is unlikely that any material may be able to take the place of iron and steel in the foreseeable future. As the largest producer of iron and steel, China has become one of the production and consumption centers of iron and steel in the world. Looking into the future, with the advance of the industrialization and urbanization of China and the intensification of China’s efforts to
improve and optimize its development model, the iron and steel industry of China is expected to become more modernized and environment-friendly and play a greater and better part in supporting the social and economic development of China.