The Future of China Steel Industry

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Steel Demand Slowdown and Shift of Strategic Emphasis

- High speed growth of steel consumption has passed over
  - In the passed 3 Q, China’s apparent consumption of crude steel equivalent reached to 566 million tons, an increase of 2.6% YoY.
  - We expect it will be 675 billion tons and a 3.5% growth for 2012.
  - The annual average growth rate reached to 20.5% for the period of 10th Five-year Plan (2001-2005) and slowed to 11.2% for the following Five-year Plan (2006-2010).
  - We believe that China has not reached its peak in steel consumption and has about 100-150 million tons of adding space for next 8-10 years. It means a very low growth rate needed to the level and possibility of occasional decrease in some years.

Steel Demand Slowdown and Shift of Strategic Emphasis

- Strategic Emphasis for Next Decade
  - Focus on upgrading the variety an quality of steel products;
  - Energy saving and reduction of pollution;
  - Optimizing the industry’s distribution;
  - Promote steel enterprises to restructure for reasonable concentration;
  - Improve supply of materials by reasonable use both of foreign and domestic resources.

### Targets of Saving Energy and Reducing Carbon in Period of 12th Five-year Plan

<table>
<thead>
<tr>
<th>Key Indicators</th>
<th>2005</th>
<th>2010</th>
<th>2015</th>
<th>2015/2010</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reduction of energy consumption for unit industrial added value (%)</strong></td>
<td></td>
<td></td>
<td></td>
<td>▼18%</td>
</tr>
<tr>
<td><strong>Reduction of CO2 emission for unit industrial added value (%)</strong></td>
<td></td>
<td></td>
<td></td>
<td>▼18%</td>
</tr>
<tr>
<td><strong>Energy consumption per ton crude steel (coal equivalent)</strong></td>
<td>694</td>
<td>605</td>
<td>≤580</td>
<td>▼4%</td>
</tr>
<tr>
<td><strong>Raw water consumption per ton crude steel (m3)</strong></td>
<td>8.6</td>
<td>4.1</td>
<td>≤4.0</td>
<td>▼2.4%</td>
</tr>
<tr>
<td><strong>SO2 emission per ton crude steel (kg)</strong></td>
<td>2.83</td>
<td>1.63</td>
<td>≤1</td>
<td>▼39%</td>
</tr>
<tr>
<td><strong>COD emission per ton crude steel (kg)</strong></td>
<td>0.25</td>
<td>0.07</td>
<td>0.065</td>
<td>▼7%</td>
</tr>
<tr>
<td><strong>Utilization rate of solid waste (%)</strong></td>
<td>90</td>
<td>94</td>
<td>≥97</td>
<td>△3%</td>
</tr>
</tbody>
</table>
The Function of China Steel Industry: Serving Domestic Demand Mainly

❑ The feature of global steel industry’s distribution indicates steel-making is an industry serving mainly domestic demand

- Most steel capacities concentrate in countries and regions where steel consumption are thickly, rather than where there are rich material resources therefore cost advantages;
- As a result, the international steel trade ratio (trade/production, in volume) is lower than those of natural resources and many finished goods. If we less the inner trade that occurs in country groups, such as EU, NAFTA etc. from below table, the ratio will be lower, not more than 20%.
- The phenomenon must be a story about market mechanism, not artificial arrangement.

The Function of China Steel Industry: Serving Domestic Demand Mainly

❑ Massive exportation of steel isn’t beneficial to China and Chinese steel industry

- Chinese steel industry used 25% of energy and generated 9-17% of pollution but only contributed 8% of industrial added value and 4% of employment in all Chinese manufacturing industries in 2011.
- Massive steel exportation in 2006-2007 was one of main factors resulting in current overcapacity.
- The “China Steel Industry Development Policies” released in 2005 points that the steel production scale is mainly based on the domestic demand.
- China’s 12th “Five-year Plan” further defines “to strictly control exports of goods with high-energy-use, high-pollution and high-resource-consuming” (3 high goods).
- China control exports of steel and other “3 high goods” rely mainly on reducing or canceling VAT rebate and further levying tariff on steel exports separately depending on different varieties.
- It is a misunderstand to regard the policy as a type of government subsidy. In fact, the policy adds export cost. For example, the highest rate of VAT rebate, 13%, for high-end steel such as tube for oil-drilling, lower than the collection rate of VAT(17%), means that 4 points(17%-13%) of export price is added on export costs.
Overcapacity and Capacity Adjustment

- Overcapacity is one of main factors resulting in weak profitability and loss in China steel industry

  - China steel industry, including about 500 enterprises which equipped with steelmaking capacity and thousands of rolling and other processing mills, is near an complete competitive industry.
  - In half of the year, crude steel produced non-SOEs for the first time exceeded half of whole the production in China.
  - The type of market has the ability of automatic adjustment to rebalance the demand and supply. In fact, the market mechanism has been playing an important role in China steel industry's restructure.

Overcapacity and Capacity Adjustment

- Overcapacity is one of main factors resulting in weak profitability and loss in the industry

  - So called “overcapacity” is caused by differences between supply and demand in terms of time, space and variety. It exists almost all industries.
  - To measure the level of overcapacity, if the 90% or 95% of utilization is too high? According to China’s experiences, 85% is in good condition.
  - To remove the overcapacity, there is no other better method than the utilization of market mechanism in China, the highly competitive market.
  - The government responsibility should and must focus on two aspects: one is to create a market environment which is featured by fair competition and orderly operation; another is to effectively control steel exportation.