

## Nickel's Outlook Likely Boosted by Improved Demand for Stainless Steel in China on Industry Reform and in Indonesia on Infrastructure Build out and Industrial Demand

### Executive Summary:

- **Global nickel market is promising, supported by stainless steel demand:** Nickel demand has increased steadily over time and is correlated closely with macro-economic development. During the period between 2007 and 2012, global nickel demand grew at a compound annual growth rate (CAGR) of 3.6%, reaching 1.7 million tonnes (mt) in 2012, according to International Nickel Study Group (INSG). The rate of demand growth matched that for supply for the same period, creating a state of equilibrium. However, according to Brook Hunt's forecast, nickel demand is expected to grow at a higher rate of about 4% over the medium term, fueled by rising demand from stainless steel, which is the major consumer of nickel, and emerging economies with China, Indonesia and Australia being the top three.
- **China is becoming a significant force in the global nickel consumption and stainless steel production market:** In 2006, China accounted for only 19% of global share for both primary nickel consumption and stainless steel production. However in 2011, according to Hatch Associates Limited, China has already increased its global share rapidly to 34% and 40% for primary nickel consumption and stainless steel production respectively.
- **China is a net importer of nickel:** According to Antaika, China's nickel market has experienced significant growth in recent years, with demand growing at a CAGR of 28% during 2007-2012. The consumption growth was mainly driven by stainless steel, alloy and plating. However, on the production side, China grew only at a moderate pace of 3.6% CAGR during the same time frame because it only has 4% of the world's nickel reserves. As a result, China is a net nickel importer, with primary nickel ore self sufficiency of less than 20%. The nickel market looks promising as supported by strong stainless steel demand from China.
- **Favorable government policies support stainless steel demand in China:** China's stainless steel market has expanded considerably in recent years, with consumption growing at 24% a year on average from 2001 to 2010. The growth mainly came from household applications and the construction sector. However, supply ramped up even faster, averaging an annual growth rate of 37% during the same period, resulting in oversupply due to overinvestment in capacity as China encouraged fixed asset investment. The surplus in domestic stainless steel supply has turned China into a net exporter since 2010. Nonetheless, there are favorable government policies in the 12<sup>th</sup> Five-Year Plan for the industry, which emphasize on 1) promoting mergers and acquisitions, 2) restriction on steel production capacity expansion, 3) upgrading of steel production technology, 4) placing greater focus on high-end steel, and 5) relocation of steel companies to the coastal areas. We believe all these policies should better balance the industry's supply and demand dynamics and provide business opportunities in the sector.
- **Indonesia also plays an important role in driving the growth of the global steel industry:** The prospects for steel demand from Indonesia are encouraging. According to the South East Asia Iron and Steel Institute (SEASI), the Indonesian steel market has undergone significant growth in recent years, with consumption growing at a CAGR of 8.3% during 2007 and 2011. The World Steel Association attributed the rapid consumption growth to the country's automotive and mechanical machinery manufacturing industries. Yet, domestic steel production only grew modestly at a CAGR of 4.9% in the same period because of the lack of manufacturing capacity and domestically-produced high-quality steel products. Hence, as of 2011, more than 50% of Indonesia's steel consumption was met by imports from countries such as China, Taiwan, Japan, South Korea, Vietnam and Russia.
- **Investment opportunities exist in different areas:** Given the delays and other difficulties associated with the installation of production systems and capacity for nickel, changing industry dynamics, and the shift in the focus of government policies, we believe that there are numerous attractive investments. Key investment opportunities in this environment include:



- **Mining companies with stable supply of nickel resources:** China's primary nickel ore self-sufficiency was below 20%. China is the largest nickel ore importer in the world, accounting for 86% of the world's total imports in 2011. Chinese nickel ore imports increased rapidly, growing at a CAGR of 33% between 2007 and 2012. With the expected increasing demand on stainless and possible delays on new projects commission overseas, we believe China will continue to be a net importer in the future. Consequently, companies that have access to local and overseas nickel resources and mines not only can secure a stable supply for their own consumption and control costs better but also have the opportunity of taking part in high-margin ore trading business.
  - **Mining companies with resources access in Indonesia:** Indonesia is the largest nickel exporter, providing 59% of the world's total exports in 2011, and China imported 52% of its nickel from Indonesia in 2012. Companies that can find and cooperate with strategic partners in Indonesia with access to enormous nickel resources would have bargaining power.
  - **Towards high-end steel products:** Under the 12<sup>th</sup> Five-Year Plan, the development of China's steel industry will focus on efficiency, which includes low energy consumption, low carbon, lower emission, high recycle rate and high value-added products. The domestic market will become quality-oriented, imposing higher requirements on products in terms of environmental-friendliness, safety and durability, sustainability and recycling. Therefore, we believe the demand of high-quality steel products will increase significantly in the medium to long term, with product development gearing toward the high-end market.
  - **Emphasis on high technology:** Projects using high technology, which is energy-saving and environmentally-friendly, and developing high-efficiency technology are all well supported by national policies. Self-developed innovative technologies provide cost advantages and efficient use of energy and resources. There is a great market potential in this area.
  - **Overseas plants:** Steel companies will see higher cost structures during the 12<sup>th</sup> Five-Year Plan period because of the increases in, for example, workers' wages and raw materials. Therefore, offshoring production (building steel mills in other countries) will increasingly become a viable alternative.
  - **Indonesia offers opportunity for foreigner investors:** Indonesia is rich in many mineral resources, such as tin, nickel, and bauxite. Under the government's Master Plan for the Acceleration and Expansion of Indonesia's Economic Development (MP3EI), large-scale infrastructure development in Indonesia is need. It is anticipated that the program would create tremendous demand for high-quality steel in the medium term. However, the steel industry in Indonesia is scarce of production capacity, capital and technology. Thus, it creates ample of opportunities for foreign companies to co-operate with or invest directly in Indonesia steel companies so as to capture the anticipated strong growth in steel demand.
- **Key challenges for the continued rapid growth** of the nickel, steel and stainless steel industries include:
- **Slowdown in economy worldwide:** A substantial slowdown in the global economic growth would result in weaker-than-expected demand for high-end and stainless steel. Given the current overcapacity situation of China's stainless steel sector, any significant decline in demand could lead to lower-than-expected capacity utilization and price competition among mills, both of which would negatively impact the earnings of stainless steel producers in China.
  - **Volatility in raw material prices:** To see further normalization of demand, the stainless steel industry requires lower volatility in its product prices, which are driven mainly by raw materials such as nickel. Any sharp decline in nickel prices could have a negative impact on nickel producers, which might cause a cut in their existing production and even a delay in their capacity expansion plans, limiting supplies. On the other hand, a rapid rise in nickel prices could drive up production costs and selling prices of stainless steel, hurting demand as end users delay purchases, de-stock or search for substitution.