MAY 2012

QUARTERLY COMMODITY INSIGHTS

BULLETIN

KPMG

cutting through complexity

Q1 – 2012

Nickel | Aluminum | Copper | Diamonds | Gold | Iron Ore | Metallurgical Coal | Platinum | Potash/Phosphates | Rare Earth Metal | Thermal Coal | Uranium

Nickel

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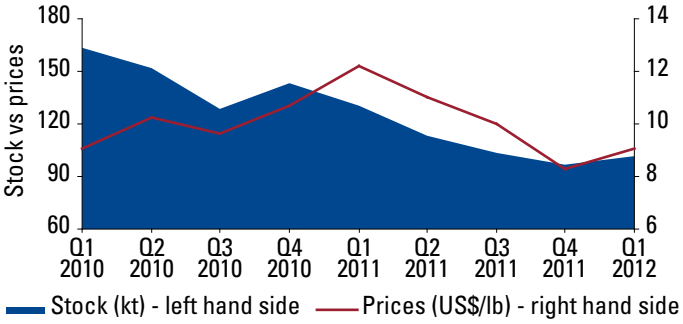
Commodity outlook

During the first quarter of 2012, refined nickel prices averaged US$9.06/lb on the London Metal Exchange, down by 26 percent from US$12.19/lb in the first quarter of 2011. However, this was greater than the lows of US$8.30/lb, witnessed in last quarter of 2011. This decline in the prices can be attributed primarily to an increase in mine production and a slowdown in the growth of global steel consumption thereby causing a surplus in the nickel market. According to the International Nickel Study Group (INSG), there was a surplus of 17kt of nickel in 2011. Recently, during the last week of March 2012, prices fell down to US$8.06/lb due to supply gut.

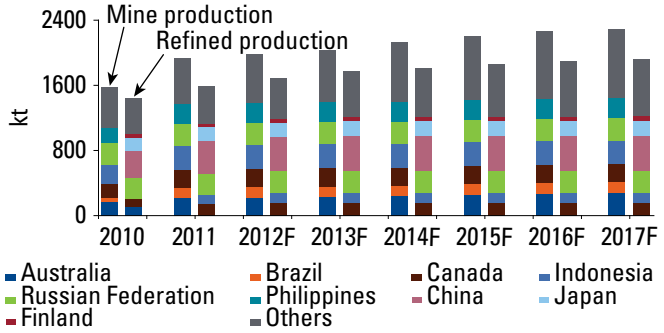
Figure 1: International refined nickel prices and stocks



Source: EIU, accessed on 3 April 2012

Supply and demand

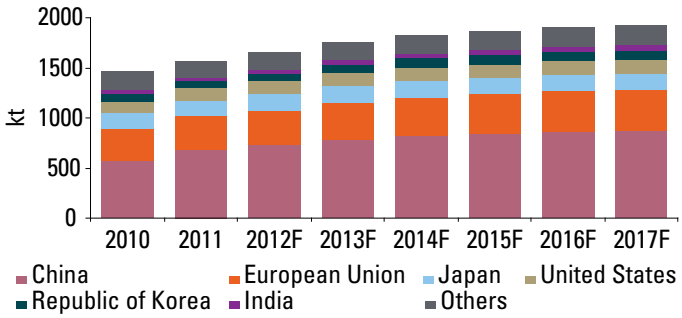
Figure 2: Global nickel production (thousand tonnes), 2010–17F



Source: BREE, KPMG Analysis

- World nickel mine production increased 23 percent in 2011 to reach 1.9Mt. In 2012, it is forecasted to increase by another two percent as small increases in mine production comes from Australia, Finland and Africa. But over the medium term, a host of laterite projects are expected to commence production in New Caledonia, Madagascar, Papua New Guinea and Myanmar. The increasing scarcity of high quality and easily accessible sulphide deposits suggests that the trend toward higher exploitation of laterite reserves will continue. The mine production is thus expected to reach 2.3Mt by 2017 at an average annual growth rate of three percent from 2013 onwards. (For more details on projects, refer to Table 3)
- Refined nickel production is expected to follow the trend of mine production. In 2011 it increased by 11 percent to reach 1.6Mt mostly due to strong nickel pig iron production growth in China and restart of some operations in Canada after long standing labor disputes were resolved. Production growth, over the short to medium term, is forecasted to grow at an average annual growth rate of three percent to reach 1.9Mt by 2017, supported by capacity expansions in China, Australia, Japan, Madagascar, New Caledonia and Brazil.
- China has been rapidly expanding its nickel refining capacity through nickel pig iron. However this is expected to moderate because of two reasons – one the high cost of production and second the changing mix of stainless steel demand. Stainless steel which either require refined nickel (for high grade stainless steel) or nickel pig iron with higher nickel content (martensitic stainless steel) are in demand which is expected to shift the demand away from low quality nickel pig iron.
- Over the last few years, producers have shown readiness to pace projects in line with developments in demand and prices. A lot of projects have been stalled or suspended since 2009 and companies are waiting for the right moment to recommence their projects. Accordingly the supply side market is expected to remain dynamic over the forecast period.

Figure 3: Global refined nickel consumption (thousand tonnes), 2010–17F



Source: BREE, KPMG Analysis

Nickel consumption increased at a growth rate of seven percent in 2011 to reach 1.6Mt. However, the rate of growth has slowed down during the second half of the year due to the slowdown in the global steel consumption growth. The slowdown in industrial growth in China, resulting from credit restraints and the appreciation of the Yuan also had an impact. The rollover effects of the sovereign debt crisis in Europe, the slow growth in the US and slowing growth in China are expected to limit the growth in global consumption to five percent y-o-y in 2012, as shown in Figure 3.

- According to Beijing Antaike Information Development Co, in the near term, China's consumption of nickel pig iron, a low-cost alternative to refined nickel, is expected to remain high, considering its cost advantage over refined nickel as it can be procured locally. The production of nickel pig iron in China is expected to increase 15 percent in 2012, to reach 300kt, up from an estimated 260kt in 2011.
- But another view is that the rapid expansion of China's stainless steel industry has driven down manufacturers' profit margins. As a result, the focus in the steel industry is likely to shift from expanding capacity to improving quality and product range. This will affect the pattern of nickel consumption in China from low quality nickel pig iron to high quality imported refined nickel. Accordingly, the refined nickel consumption in China is expected to grow at eight percent in 2012 to 735kt.

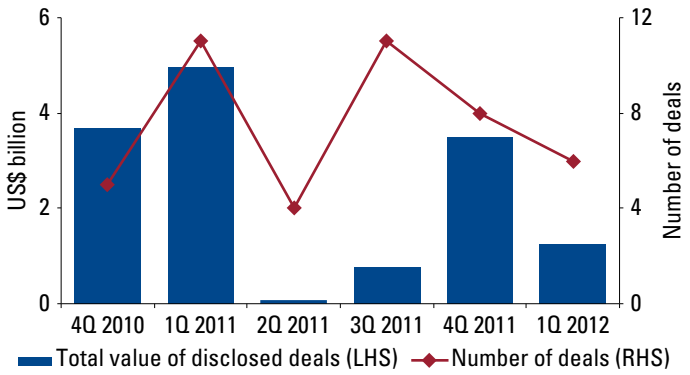
  Further, over the medium term, the consumption is expected to grow due to an increased demand for stainless steel in emerging economies of China and India. The expansion of urban infrastructure and housing developments and ongoing industrialization and urbanization will result in increased demand. This growth will be underpinned by the fact that the nickel consumption per person is very low in these countries as compared with many developed economies.
- In 2011, total nickel consumption in Japan was ~156kt, owing to the disruption of industrial activity caused by natural disasters. At the same time, post-tsunami rebuilding is expected to boost the country's nickel consumption in 2012 to 160kt. But thereafter the consumption is expected to grow at a slow pace of one percent a year to reach 165kt by 2017.
- A new area of focus for Nickel use, albeit only five percent currently, is the growing battery market, used for electric cars and mobile devices such as phones, cameras and computers. Recent improvements to lithium-ion batteries have created competition for nickel metal hydrite batteries, but the characteristics of both the batteries have led to technology developments that can combine lithium and nickel to produce a battery with higher energy potential, longer life and fewer fire risks. Thus with increased focus on energy efficient motor vehicles and consumer goods, this segment is expected to create large market for nickel in the coming years.

Key developments

Ownership changes

In the first quarter of 2012, the total value of announced deals in the nickel ore industry was US$1.26 billion, down from US$4.97 billion in the first quarter of 2011, a y-o-y decrease of 75 percent, as shown in Figure 4. Number of deals in the first quarter of 2012 increased to six from eight deals in the last quarter of 2011. Out of the six deals announced in the quarter, one has already been completed.

Figure 4: Value of announced deals in nickel ore industry



Source: Intierra, Merger Market

In the first quarter of 2012, Canada and Australia were at the center of merger and acquisition activity, as five of the six announced deals had a Canadian or an Australian acquirer, target or both.

Table 1: Nickel deals in Q1 2012

Date announced	Target	Target nation	Acquirer	Acquirer nation	Status	Value of transaction (US$ million)	Stake (%)
2-Mar-12	Kagara Nickel Pty Ltd	Australia	Western Areas NL	Australia	Completed	73.13	100%
2-Mar-12	Ursa Major Minerals Inc.	Canada	Prophecy Platinum Corp.	Canada	Announced	12.04	100%
1-Mar-12	Eramet S.A.	France	Fonds Strategique d'Investissement SA	France	Announced	1,034.60	26%
3-Feb-12	Magma Metals Limited	Australia	Panoramic Resources Limited	Australia	Announced	39.01	91%
23-Jan-12	Rift Valley Resources Limited	Australia	BrightStar Resources Limited	Australia	Announced	16.28	100%
20-Jan-12	Goldbrook Ventures Inc.	Canada	Jilin Jien Nickel Industry Co Ltd	China	Announced	87.18	96%

Source: Intierra, Merger Markets, Company reports

Regulatory Updates

In first quarter of 2012, regulations imposed on the nickel sector were focused on either conservation of resources for the local community or safeguarding environment.

Table 2: List of recent regulations regarding nickel industry

Country	Regulation	Description
Indonesia	Ban on Nickel ore exports	Nickel ore and bauxite shipments from Indonesia is expected to plunge by 75 percent as ban on metal-ore exports is expected to come into force in May this year, two years earlier than scheduled.
Indonesia	Cap on foreign ownership	According to Ministry of Energy and Mineral Resources official, Indonesia is planning to cap foreign mine ownership at 49 percent by tenth year of production.
Canada	The Metal Mining Effluent Regulations (MMER)	Canadian government has introduced these regulations to impose limits of mining wastes which can be discharged into waters frequented by fishes.

Indonesia's Nickel exports – serious threat or just a speed bump?

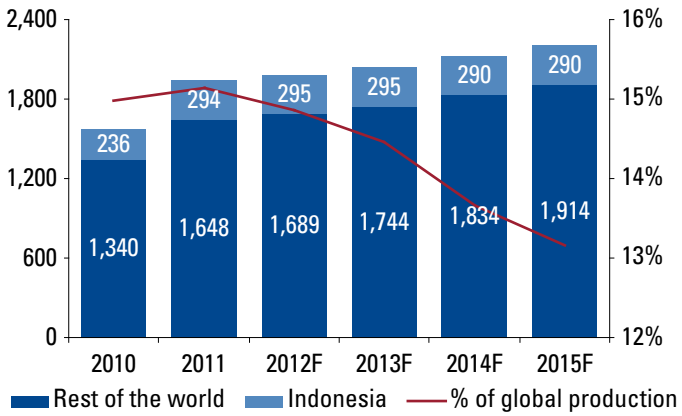
Indonesia has been a key supplier of several mined commodities to the world. In terms of mined nickel, as per EIU, it contributed ~15 percent of global production in 2011. But with rising commodity prices, the intent of the Indonesian government is clear, that is, to extract a larger share of domestic resource earnings going forward. In order to accomplish this objective, they have introduced the following:

- Banning exports of unprocessed ores including nickel, copper, iron ore, and bauxite by 2014 (July 2011)
- Capping foreign ownership of mines at 49 percent by tenth year of production (March 2012)

Analysts expect that the ban on exports is to push companies into developing processing facilities and also to have tighter regulations and control over its national minerals. The regulation provides that an exemption will be provided if the producer submits a smelter/ refinery development plan and mine production data by May 2012. Further, the Indonesian government is willing to allow co-operation between companies. Further if by 2014 the processing facility is not completely constructed, it will allow extension if it is satisfied with development plans of the company.

Thus, we understand that the intent is to generate more benefits for the country and the action might have only minor impact on the global market as it is expected to dilute the share of Indonesia in the global mined nickel production but not to a great extent. This, in turn, could provide support to the nickel prices in the short term but in the medium to long term, new project are expected to fill up the space.

Figure 5: Indonesia's contribution to global nickel mine production



Source: EIU, KPMG analysis

Future projects

Table 3: Major nickel projects

Project	Country/ Region	Operators/ Owners	Commodities	Potential start year	Nickel production (tonnes / year)
Marlborough Laterite Nickel Project	Australia	Gladstone Pacific Nickel Ltd (Operator)	Nickel, Cobalt	Stalled	63,000
Koniambo Laterite Nickel Mine	New Caledonia	Xstrata plc (Operator)	Nickel, Cobalt	2012	60,000
Ambatovy Laterite Nickel Mine	Madagascar	Sherritt International Corporation (Operator)	Nickel, Cobalt	2012	60,000
Mindoro Laterite Nickel Project	Philippines	Intex Resources ASA (Operator)	Nickel, Cobalt	NA	52,700
Long Harbour Hydrometallurgy Nickel Smelter	Canada	Vale S.A. (Operator)	Nickel, Cobalt	2013	50,000
Minago Nickel Project	Canada	Victory Nickel Inc. (Operator)	Frac Sand, Nickel, Sand	2015	49,895
Honeymoon Well Nickel Project	Australia	OJSC MMC Norilsk Nickel (Operator)	Nickel	Revived	40,000
Wingellina Laterite Nickel Deposit	Australia	Metals X Limited (Operator)	Nickel, Cobalt	NA	40,000
Kabanga Nickel Project	Tanzania	Xstrata plc (Operator)	Cobalt, Copper, Nickel, Palladium, Platinum	2014	40,000
Taganito HPAL Nickel Refinery	Philippines	Sumitomo Metal Mining Co., Ltd. (Operator)	Nickel, Cobalt	2013	30,000
FeNi Haltim Nickel Project	Indonesia	PT Antam	Nickel	2014	27,000
Acoje Laterite Nickel Mine	Philippines	ENK plc	Cobalt, Gold, Nickel, Palladium, Platinum	2014	24,500
Fenix Laterite Nickel Operation	Guatemala	Solway Group (Operator)	Nickel, Cobalt	2014	24,250
Sheba's Ridge PGE/ Nickel/Copper Project	South Africa	Aquarius Platinum Limited (Operator)	Copper, Gold, Nickel, Palladium, Platinum, Platinum Group Elements	NA	23,900
Eagle Nickel/Copper Mine	United States	Rio Tinto Limited (Operator)	Copper, Gold, Nickel	2013	17,300

Source: Intierra, Company data

Publication number: 120686
Publication date: May 2012