INSG Insight

INSG SECRETARIAT BRIEFING PAPER December 2008 – No.3

THE FINANCIAL CRISIS: IMPACT ON EXPLORATION

This third INSG Insight in the series examines the impact of the financial crisis on the non-ferrous metals sector and more specifically on exploration. This paper will look at how the financial crisis unfolded and spread from the financial sector to the metals sector, reactions so far in the metals sector and what trends seem to be emerging. The objective of the paper is to look at the longer term production and consumption balances and discuss what repercussions a lack of financing for exploration might mean for that balance.

Introduction

The financial crisis began to unfold in mid-2007 with the sub-prime home mortgage crisis in the United States. By mid-2008 it was evident that the crisis had expanded beyond the housing sector and had grown to be a worldwide phenomenon. In its October 2008 *World Economic Outlook*, the International Monetary Fund (IMF) stated, "The financial crisis that erupted in August 2007 after the collapse of the US sub-prime mortgage market entered a tumultuous new phase that has badly shaken confidence in global financial institutions and markets". The IMF predicted that the world economy "is now entering a major downturn in the face of the most dangerous shock to mature financial markets since the 1930s."

In the early stages of the crisis, financial institutions bore the brunt of the disruption. Investment banks and commercial banks suffered losses as assets were written down. As confidence in the financial and banking sector was shaken, the crisis spread into the real sectors of the economy. Banks restricted credit and even the inter-bank market stopped working normally. Exploration companies without cash-earning capabilities were especially hard hit by the credit crisis.

The credit crunch of 2008 and the ensuing financial crisis may turn out be relatively short term events but with potentially longer term effects on the non-ferrous metals industry. IMF projections are for a contraction in economic activity in advanced economies in late 2008 and early 2009 followed by a return to economic growth in late 2009. However, the impact on the metals sector could extend several years. By exacerbating a decline in the exploration cycle, the financial crisis is likely to increase volatility of supply in the long run. Temporary lack of finance can lead to reductions in staff, including experienced personnel, and this may make restarting delayed projects more difficult.

As Metals Prices Decline Companies React

The September 2008 crisis in the financial markets quickly spread to the real market. For example, manufacturing in the U.S. contracted in October at the fastest pace in 26 years as the credit crisis deepened and companies slashed orders.

During the month of October 2008 prices for most metals suffered steep declines, in some cases the biggest month-on-month declines ever seen. The London Metal Exchange base metals price index (LMEX) dropped 25.7% in the course of the month, declining from 3296.1 to 2447.6. Cash prices on the LME for Nickel fell 50% from September to the end of November, from about $19,400/t to $9,700/t.

One of the immediate effects of this drop in metals prices has been a flurry of announcement from mining companies that they would cut back or limit productions. A sampling of company announcements concerning nickel demonstrates the magnitude of this trend. For example:

Nov. 27 – Bindura Nickel of Zimbabwe placed two mines, Trojan and Shanghai on care and maintenance and said its integrated smelter and refinery, which has an annual capacity of 14,500 mt, will also be put on care and maintenance once current stocks are depleted.

Nov. 25 – Sherritt International said it is considering revising its execution strategy for the Ambatovy nickel project in Madagascar to reduce the cost of the project.

Nov. 24 – Norilsk Nickel put operations at Waterloo and Silver Swan mines in Western Australia into care and maintenance.

Nov. 2 – Vale reduced production levels at various projects, pushing back start-up of Onca Puma and Goro nickel projects.

Oct. 29 – Eramet limits nickel deliveries to 52,000 tons, down from an earlier objective of 55,000 tons.

Oct. 29 – Sherritt International said it would suspend about C$270 million in capital contributions to expansion work at Moa nickel operations in Cuba and in its Ft. Saskatchewan nickel refinery.

Oct. 29 – Australian miner Mirabela Nickel, which aimed to start production at its Santa Rita mine in Brazil in mid-2009, said it had decided to halt further exploration because of cash constraints.

Oct. 27 – Ufaleynickel, Russia’s no. 3 nickel producer, said it had stopped production of metal due to a fall in world prices. In May the company said it aimed to produce 14.000 – 16,000 tons of nickel.

Oct. 24 – Brazil’s Vale said it was reducing production at some high-cost operations, including a 20 percent cut in nickel output at its PT Inco unit in Indonesia. The company will also reduce activity by 65 % at its Dalian processing unit in China.

Oct. 21 – Norilsk said it would revise its investment program for next year due to a decline in nickel prices.

Oct. 21 - FNX Mining Company suspended operations at Levack nickel mine.

Oct. 20 – Canada's First Nickel said it suspended output at its Lockerby mine, saying nickel prices were below the mine's cash costs. The company said that Lockerby would be kept in a ready state, enabling a return to production when economic conditions improve.

Oct. 17 Norlish Nickel said it would halt production at its Cawse laterite nickel operation in Western Australia because of higher costs and lower metal prices.

Oct. 15 – Belvedere Resources said it had temporarily suspended mine development work at its Hitura nickel mine in Finland due to weak prices.

Oct. 10 – The Russian Copper Company temporarily suspended a separate project to expand into nickel and to build a zinc plant with a rival miner due to the global financial crisis.

Also during October and early November, steel companies announced massive cutbacks in planned production, with companies such as ArcelorMittal and Corus cutting planned production for the 4th quarter of 2008 by 30% or more. Macquarie Research projected in early November 2008 that global stainless steel production for 2009 would decline 10% from 2008 levels. Since stainless steel production is the largest single use of nickel, large cutbacks in stainless steel production are rapidly felt by nickel producers.

In addition, the collapse of car manufacturing in late 2008 quickly lead to a fall in demand for metals. In North America, the Detroit 'Big Three' of General Motors, Ford and Chrysler saw year-on-year sales drop by around 20 percent. European and Asian automakers also saw sharp declines in sales and responded by cutting production. In November, Renault announced a 25 percent cut in production.

The Impact of the Crisis on Financing…

Minerals exploration requires substantial capital. Financing for exploration projects is obtained either by borrowing on credit or from equity investment. The current financial crisis has disrupted the normal operations of both credit and equity markets.

One immediate impact of the financial crisis was the virtual freezing of credit markets in late 2008. The steep rise in overnight rates such as Libor underlined the depth of the crisis in the financial sector. For example, in September 2008 the benchmark Libor interest rates for the Euro for overnight bank lending jumped temporarily to 5.4 percent, from a previous level of around 2.5 percent. Banks infected by the collapse of confidence within the financial system were wary of extending loans even to long-standing customers. Even as central banks cut interest rates the commercial banks were reluctant to pass cuts on to borrowers. Mining companies were therefore unable to borrow to finance exploration.

At the same time, confidence in the equity markets was seriously jeopardized and they experienced steep declines. As turmoil spread in the equity markets, it became more difficult to raise money by means of an Initial Public Offering (IPO). By late 2008, global IPO activity had fallen to its lowest level since 2003, according to Ernst & Young. In the third quarter of 2008, a total of 159 IPOs worldwide raised US$13.1 billion in capital. This is the lowest level of quarterly activity - by number of deals and capital raised - since the second quarter of 2003, which recorded 130 IPOs and US$6.8 billion in cumulative capital. Between the second and third quarters of 2008, the value of funds raised via IPOs fell by 66%.

A typical pattern is for start-up firms to use equity financing rather than debt. Investors put up equity financing in the early stages of a project. Later, as the firm grows, it has recourse to do an IPO, at which time the initial investors may exit. If equity markets are not functioning normally, the initial investors could face difficulties in recovering their investment. At the same time, the disruption of the credit markets means that firms relying on a debt to finance growth will be unable to expand.

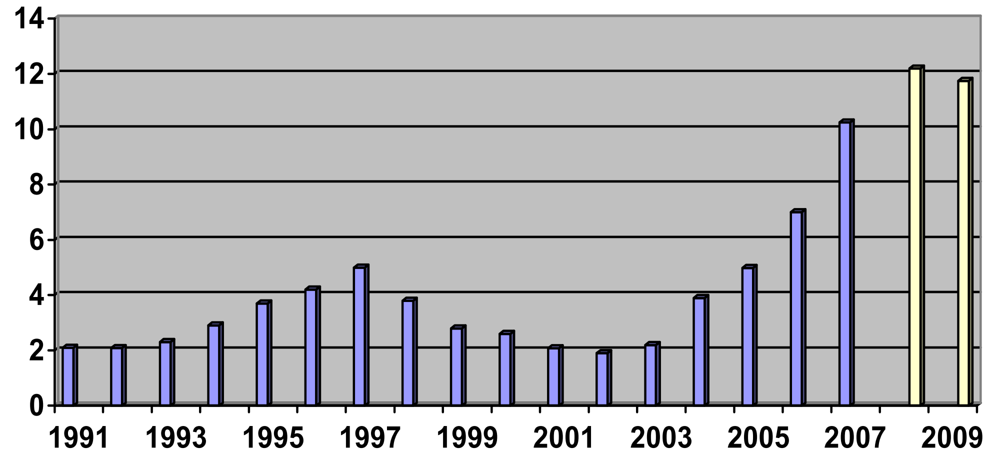
As an indication of the depth of the decline in equity markets, Goldman Sachs announced in November 2008 that it was reducing coverage of some companies in the mining sector. An equity analyst at Goldman Sachs commented, “No-one’s listing, so they can’t make money from that, and secondary trading from mining equities has dried up”.

…And the Lack of Financing Hits Exploration

As the financial crisis continues, the impact on the mining and minerals sector is growing. With neither equity capital nor borrowing easily available, mining exploration will be curtailed as projects are either cancelled or, at best, delayed. A delay in spending on new projects could lead to a supply crunch in the longer term.

Historically, expenditures for mining exploration have followed a cyclical pattern in response to rising and falling metals prices, as shown by the graph below. Exploration increased in 2005 – 2007 during the period of rapidly increasing metals prices. The projections for 2008 and 2009 are based on data from mid-2008. With the economic downturn becoming more severe, the expenditures for 2008 and 2009 may well turn out to be lower than estimated here. If the typical cyclical pattern of exploration expenditure is maintained, a fall in spending to the levels seen in 1991-1992 or 2001-2002 is possible.

Global Mining Exploration Expenditure
(with 2008/2009 estimates)
(in US$ billions)



Source: 2008 and 2009 figures Raw Materials Group, Stockholm, all other years MEG.

A fall in exploration expenditure of this magnitude could have a long term impact on supply and demand. Since it takes several years to bring mining projects from the exploration stage into production, in the long term there may not be sufficient projects in the pipeline to meet global demand. Emerging markets, especially China will continue to grow and drive demand in the long term. Over the period 2000-2007 worldwide consumption of nickel grew at an annualized rate of 3.4%. If growth continues along this trend, there will be need for new capacity, and new projects coming on line.

Press reports in Australia noted that by November 2008, exploration had been hard hit there. Exploration was described as having been “turned off overnight." Reports from Australia noted that Consolidated Minerals had let staff go from its exploration and geology fields and Poseidon Nickel, Newcrest Mining, Mt Gibson Iron and nickel miner Minara Resources have also announced staff cuts.

When skilled geologists and other experienced specialists are let go, it can sometimes be difficult to restart exploration projects, even when economic conditions improve. This tends to lead to a start/stop process in exploration which can in turn be reflected in volatility of supply.

In addition, junior mining and exploration companies may find that in order to survive, they will have to merge.

The reduction in expenditures in exploration in the near term has the potential to increase volatility of supply in the long term as disrupts the start up of new projects to supply growing world demand. Over the past several decades, demand for zinc and lead has expanded at a steady pace, in line with economic and population growth. Continued exploration is needed to meet the projected future growth.

Conclusions

The global economic turmoil is having a severe impact on the non-ferrous metals sector. Many firms are cutting mine production, smelting and refining operations and exploration programs. Cuts in production will help to bring supply into balance with demand in the short term. Companies will be ready to increase production as the world economy returns to growth, which the IMF predicts will occur in late 2009.

However, the current cuts in exploration programs may well have a longer term effect. The impact of the sharp drop in investment in exploration may be seen only in the medium term of 5 to 10 years in the future as new mines will not be in the pipeline to respond to growing world demand. Potentially then, the current credit crunch and stock market turmoil may well tend to increase volatility in the metals market in the longer term by setting the stage for future supply shortfalls.

Comments or Questions

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December 2008