Debating the nickel price

When major scrap supplier Oryx Stainless brought together senior representatives from the nickel, stainless steel and financial communities to discuss the fundamentals of, and speculation in, the nickel market, plus independent research commissioned by Oryx, Richard Barrett was there to summarise the debate

As buyers of many types of pre-sorted stainless steel scrap, the managers of Oryx Stainless, with sites in Mulheim, Germany, and Dordrecht, the Netherlands, keep a close eye on the price of nickel. The company sells over 400,000 tpy of meltshop-ready material consignments, which it blends to chemical and physical specifications set by the international stainless steel producers it supplies.

Estimates show that as much as four-fifths of the price of stainless steel is determined by the price of nickel. Stainless steel and nickel-alloy producers account for over 80% of nickel demand.

Oryx's position in the supply chain gives its directors a ready view of reactions up- and down-stream when nickel prices break away from levels which participants in the physical market view as being justified by the fundamentals. Those participants are often indignant at sharp and unexpected nickel price movements, which they frequently blame on purely financially motivated commodity speculators.

These concerns prompted Oryx to commission a detailed empirical analysis of nickel market fundamentals and the effects of speculation on it. The study was made by Prof. Dr. Peter Posch – a former head of trading in credit derivatives – at The Institute of Finance, Ulm University, Germany.

On 13 September, Oryx brought together its directors with senior representatives of stainless steel producers, major investment banks and nickel market analysts to discuss the study's findings and their views on the nickel market.

A systematic approach

As a first step, Posch found that three-quarters of the nickel price could be explained by supply-demand fundamentals. His analysis then focused on finding the factors that determine the unexplained quarter of the price by studying several different models of the nickel market *(see panel)*.

His main conclusion about the effects of speculation is that they exaggerate the degree to which the nickel price rises or falls. The well known peak at over $50,000/tonne in 2007 provides one notable example, but he says that big falls in price can be similarly explained.

Participants at Oryx's meeting acknowledged the value of the research, but also pointed out the difficulty of capturing and predicting the effects of unexpected news on the nickel market. Posch did look for correlation between major news stories published and the historical nickel price data but, as a nickel analyst pointed out, by the time market-sensitive news is made public, the market has often already reacted to it.

Of necessity, trading decisions are frequently made on the basis of incomplete or inaccurate market knowledge. Another analyst pointed to the release of revised production statistics as one example of that.

Posch said that he was surprised by the power of the advanced, time-series model he applied to predict the direction, but not the level, of the nickel price. He suggested that the accuracy with which it forecast the future direction of the nickel price on a weekly basis, by processing historical price data, is sufficient to make it of potential interest to investors.

Mills squeezed

A mill representative said that they often feel squeezed between the costs of their raw materials and the prices their customers will pay for stainless steel. Stainless mills generally dislike high nickel prices, although analysts highlighted that periods of high nickel prices often coincide with good demand for stainless steel producers and improved profitability for the mills. The potential for end-users to substitute galvanized carbon steel or aluminium for stainless steel in some applications worries stainless mills if their products have to be highly priced for sustained periods.

But it is nickel price volatility that annoys the mills most and swiftly leads them to blame commodity investors: "What is damaging is the volatility – damaging peaks," said a senior international stainless steel representative. As a measure of the nickel market's sensitivity, mills and large scrap businesses say that they can see how their own essential physical transactions are quickly reflected in the price.

The financial community queried why mills do not hedge more on the LME. Stainless producers responded that they are concerned by the costs of doing so, but even more worried by the consequences of clients reneging on the physical contracts on one side of a hedge, leaving them exposed to the converse position taken on the LME. European mills say that such contract defaults are common when the nickel price falls, particularly for shipments to Asia.

Some market observers pointed to cultural differences, saying that while European stainless mills shy away from the speculative potential of the stainless steel business, many Asian stainless mills actually welcome it.

Analysts asked whether stainless mills should worry so much about short-term changes in nickel price if they can base their pricing on monthly averages, and also ▶

More use of scrap statistics could aid nickel market transparency

ORYX STAINLESS

queried whether the mills should rely so heavily on an alloy charge system that does not appear to protect them effectively from nickel price movements.

European mills are aware that structural overcapacity in the global stainless steel industry weighs on it heavily in the current economic climate, but individual mills are reluctant to pare back production further unilaterally or remove capacity, in the knowledge that doing so will see imports flood in to replace production removed. Some European stainless producers are already running at just two-thirds of capacity.

Defending speculators

Defenders of speculation point out that those willing to take a position in any commodity market provide liquidity and support industry's need for price risk management.

The financial community at Oryx's meeting dismissed the notion sometimes held by physical market players that speculators are reckless investors. Hedge funds, for example, are said to often have the best market data available. Their well known secrecy may help to fuel suspicions, and even resentment, about the effects of their activities in the physical market, but clearly disclosure of their trading positions would have substantial impacts on their returns.

An explanation of the basic strategies taken by the three main types of 'speculator' relevant to the nickel market caused some incredulity amongst the physical nickel market players: particularly 'black box' systems running complex mathematical trading algorithms used by some Commodity Trading Advisors (CTAs) to generate decisions to buy or sell.

Hedge funds (HFs) look for absolute returns by trying to position themselves alongside, and in advance of, physical market requirements. They make fundamentally based decisions on a 1 month – two-year horizon and are closer to industry in weighing up supply-demand fundamentals. They also consider other factors, including market composition, value by comparison with other metals, implied option volatility, market liquidity, general investor sentiment and, not least, how easily they can unwind their position. Index funds (IFs) are far more passive investors looking for exposure to, or ownership of, many commodities over the long term.

An estimate of the assets invested in all commodities across these three types of player suggested they are over $500 billion. An approximate calculation of current IF holdings presented at Oryx's meeting suggested they have around $2 billion invested in nickel, while a rough estimate of the nickel held by all three types of speculative investor suggested they may hold a little over a third of LME nickel open interest, with long IF positions balanced by short HF and CTA positions. The remaining two-thirds are 'commercial' positions.

Those ratios change, of course, and can reverse at price peaks and troughs, when prices can become detached from the fundamentals, but in accord with Posch's findings, it seems that fundamental prices prevail over the long run.

Greater transparency needed

There was consensus that wider, deeper and more reliable data in the nickel and stainless markets would improve trading and forecasting for everyone.

Since stainless steel scrap accounts for around half the nickel units needed by industry, Oryx called for statistical data on its supply and stocks to be collected and distributed so that they can be interpreted by market participants alongside the LME's existing nickel stock reports. The scrap trader's directors maintain that the reliability of market forecasts are hampered by poor information about the volumes and availability of stainless steel scrap supplies. They also believe that detailed mathematical modelling of more comprehensive market data, possibly at an EU level, could improve market understanding further.

NICKEL MARKET MODELS

A number of models were found to be useful in an empirical study of the nickel price:

Fundamental model (using mining, production and consumption data, which were found to account for 75% of the nickel price)

Residual analysis (to study the difference between the price expected by a fundamental model and the actual LME price)

Market model (to take into account the impact of broader macroeconomic market information, such as interest and exchange rates, which were found to have only a subordinate effect on nickel prices, mostly captured by the market fundamentals)

Time-series model (to process a large data set of historical nickel price progression to forecast a rational expected nickel price, which was found to have a good correlation with the subsequent actual nickel price movements)

Further details of the research report are available at www.oryxstainless.com

Others asked whether the LME should try to separate out data about speculative versus non-speculative positions in the information it supplies, as on some other exchanges, but an analyst said it would be very difficult reliably to distinguish between the motives of parties holding positions in the metal markets. The LME itself points out that the US CFTC Commitment of Traders report does not reveal the true underlying structure of the market.

Vigilance for large individual trading positions in the already well regulated LME nickel market needs to remain intense, Oryx stresses. The company also proposed that increased dialogue between market participants would complement the nickel market data available from the LME to make the whole market more transparent.

Appalled by organisations that are willing to break contracts, one banker said they should be brought to account and governmental pressure brought to bear on nations where this happened: "What happened to my word is my bond?" Others suggested that demanding a substantial deposit or cash up front would be the only practical step to take with such buyers.

The understated, but no doubt fully understood, fact known by those taking part in the debate is that every participant – physical or financial – in any commodity market naturally hopes to use privileged information to their advantage, whether buying or selling. While in an ideal, theoretical, world completely open and transparent market data would enable everyone to achieve a fair and less volatile price, it remains to be seen how open the many people and organizations at play in the nickel market will actually be willing to be.

The stainless scrap supply can react more quickly than mine supply, since small scrap collectors can choose simply to hoard material if the price they are offered is unattractive: "Low availability on the sourcing side of scrap is an early signal for rising nickel prices at the LME," notes Oryx.

While volatility will always be present in the nickel price, the potential for its amplitude to be reduced and its effects better managed by players in the physical market was thought to be high if the measures mooted to improve transparency were to be applied.

Whatever faults nickel markets may have, there seemed to be consensus that the current market structure is better than any hypothetical return to the producer pricing prevalent before the LME nickel contract was introduced. It is clearly the responsibility of every player along the nickel and stainless steel supply chain to arm themselves with as much nickel market information as they can to be able to make as well informed, if always imperfect, decisions about the commercial transactions they make at their link in the chain.