

# American Metal Market's Guide to Steel Futures

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LONDON METAL EXCHANGE

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# Futures look bright

Suddenly, everyone is talking about steel futures.

In recent months three major commodity exchanges have announced proposals to launch steel contracts. Given the effect these contracts will have, if successful, on steel price transparency, the casual observer could be forgiven for believing that the whole landscape of the steel business is about to change.

But for all the enthusiasm of the New York Mercantile Exchange, the London Metal Exchange and the Dubai Gold and Commodities Exchange, the battle for the hearts and minds of the steel industry is far from won. The LME issued initial proposals for steel contracts as long ago as 2003, and before then Enron was offering over-the-counter deals. But the steel industry, which might be thought likely to benefit most from such services, has tended to be suspicious of commodity exchanges and their apparently unseemly courting of speculators and hedge funds whose interests it has regarded as divorced from its own.

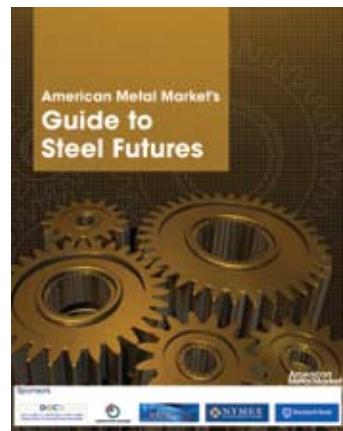
By and large the steel industry has responded to these overtures with a show of indifference and in some cases outright skepticism. Many industry participants are yet to be convinced that hedging their price risk will provide financial savings that they can't already achieve through existing business practices. Others simply don't understand how futures work, and have watched the recent volatility in prices of exchange-traded base metals with deep concern. Being forced to pay \$50,000 for a tonne of nickel is hardly the best advertisement for the benefits that futures contracts can bring.

For many, steel futures remain the "Wild West" of the industry. Or, as one U.S. steel buyer says, quoting an old maxim: "Change is great! You go first."

Despite these widespread reservations, the reality of steel futures is now upon us. The steel industry has stopped asking if steel futures will happen and has started to prepare for when they are launched.

In this special supplement, AMM takes an in-depth look at the basics of steel futures, why they are being launched and what the truth is behind the hotbed of discussions that steel futures have generated. Top officials involved in the design of the three pending steel contracts explain their reasoning and lay out their goals for the future. Analysts and traders explain why steel producers opposed to futures may be fighting a losing battle, and address the crucial issue of price volatility. And for those who don't know their contango from their backwardation, we provide a user's guide to how the contracts will work and a handy glossary of futures-related terms.

Happy hedging.





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# Building one, two, three freeways to the future

While steel derivatives have been available on the over-the-counter (OTC) market for nearly four years—Koch Metals Trading Ltd. started offering OTC price risk products in January 2004 and Multi Commodity Exchange of India Ltd. (MCX) launched a steel contract two months later—none of the world's big commodities exchanges appeared ready to jump on the steel futures bandwagon until 2006.

Over a little more than a year, three major global exchanges announced detailed proposals for contracts, each designed to serve a different section of the steel supply chain and each using a different structure.

## New York Mercantile Exchange

In July 2007, Nymex announced plans to launch by the end of the year a regional, cash-settled contract for U.S. hot-rolled coil based on SteelBenchmark, a pricing index provided by World Steel Dynamics Inc. created in cooperation with AMM and sister publication *Metal Bulletin*.

Nymex said its contract, which is likely to be for 20-short-ton lots forward for 18 consecutive months, is going to be listed on its Clearport trading and clearing platform. SteelBenchmark, which is an index compiled by surveying the opinions held by a cross-section of the steel industry regarding the price of U.S. hot-rolled coil (as well as around 20 other product and regional price indices), will be used to settle the contract on a daily basis, said Robert A. Levin, Nymex senior vice president of research.

"If (a participant) bought lower and the final settlement price is higher, they will (make money) during that period, and if they sold at lower than the final settlement price they will have lost money," Levin said. "This market process and final settlement is done every day over the period of the contract."

As a result, the index shifts from being a guide to steel pricing to the baseline that determines profit and loss for market participants. Thus, it was no surprise that since Nymex's announcement a number of people in both steelmaking and in the derivatives industry have raised concerns about its robustness be-



**Preparing to launch.** The Nymex announced plans in July to debut a regional, cash-settled contract for U.S. hot-rolled coil based on SteelBenchmark, a pricing index provided by World Steel Dynamics in cooperation with AMM and sister publication *Metal Bulletin*.

cause the generated price is an opinion rather than an average of actual transactions.

"As long as the market surveyed (by SteelBenchmark) is sufficiently wide, then it will provide an accurate reflection (of the price)," Levin said. "The index is an opinion because there is no index that can account for the different sizes and grades found across one product."

Peter Marcus, managing partner of World Steel Dynamics, Englewood Cliffs, N.J., said he is unsure whether anyone is already using SteelBenchmark to settle their physical or OTC business, but he believes the system will be accepted in time because it is less prone to manipulation.

"If you go on the LME, for example, you'll find that financial buyers can buy or sell metal (affecting the price, which is discovered through these transactions)," he said. "In the case of SteelBenchmark, only (steel industry) buyers and sellers are participating. The price comes out the second and fourth week of each month and it includes no impact from financial players or speculators."

According to Levin, Clearport's trading platform will allow the exchange to market its steel contract as an exchange-traded derivative, while its Clearport clearing system also will allow it to process OTC, off-exchange trades for those wishing to turn them into exchange-cleared forward contracts. That could

make them very popular with OTC players like Koch Metals Trading.

"Currently, (the steel industry) conducts its business principal-to-principal, over-the-counter and off-exchange, so we want to make it easy for them to take the transactions that they want to have as futures and put them in our clearing house, Clearport Clearing," Levin said. "If you don't have a counter-party, buyers and sellers can find each other on Clearport Trading, our electronic trading platform."

This duality lies at the heart of how Nymex envisages its contract will develop, and Levin said he expects participants are more likely to get to grips with the contract by using the clearing facilities. "I think that we're prepared for there initially being greater demand to accommodate migrating off-exchange transactions into our clearing house," he said. "We're commercially prepared for both, but we would not be surprised if there are more off-exchange transactions initially than on-exchange transactions."

## Dubai Gold and Commodities Exchange

In September 2006, the Dubai Gold and Commodities Exchange (DGCX) announced initial plans for a steel futures contract, later detailing that it would be a regional, physically deliverable reinforcing bar contract, and hired John Short, Duferco SA's direc-

tor of strategy, as director for steel and base metals. Short had worked closely with the London Metal Exchange on early plans for a steel contract and previously as a physical steel trader in London and Dubai for trading house Stemcor Holdings Ltd.

Short, who also worked for LME Category II member Standard Bank Plc as a trader, says the DGCX rebar contract launching at the end of October will eventually offer the opportunity for a wide range of steel industry participants in the Middle East to lock in prices for rebar and allow them to protect themselves from steel price volatility.

"The Middle East region is one of the world's fastest-growing steel markets, now consuming more than 50 million tonnes per year," Short said. "With the introduction of futures in steel, the physical supply chain will be in a better place to mitigate the negative impacts of price volatility. That price volatility can be in excess of 15 to 20 percent, putting tremendous stress on cash-flow management and project profitability."

Bids and offers for 10-tonne lots of rebar priced forward between two and 12 months will be matched electronically on a platform provided by India's MCX, a minority shareholder in DGCX, and cleared through DGCX's own clearing house. The contract, which is the first in a suite of four steel futures contracts that DGCX plans to offer, is based on BS4449 rebar subject to ISO 8501 rust standards. More than 3 million tonnes of this grade are consumed in the United Arab Emirates alone each year, the exchange said, and an additional 20 million tonnes are traded among Red Sea and Persian Gulf countries.

The contract is modeled on a make/take delivery template, with market participants obliged to make or take delivery of material at the Jebel Ali free-trade zone in Dubai. The possibility of delivery is intended to ensure that the price quoted on the exchange is an accurate representation of the physical market price of rebar, according to Short. (This approach is referred to as "convergence," without which a contract lacks credibility, he said.)

"While the vast majority of traded futures contracts result in cash settlement—no physical steel changes hands—some trade and industry participants might look to use the contract to make or take delivery of physical steel, should it be financially advantageous for them to do so," Short said. "Sellers will look to make delivery of rebar into the higher-priced market, while buyers will look to take delivery from the lower-priced market. These

competing arbitrage forces drive convergence between the spot price (on the exchange) and the price for delivery of rebar next week. And with price-convergent markets, all physical steel tends to flow through the physical market (not the exchange) because that's how the physical supply chain works best for buyers and sellers."

Most participants will close their positions before the contract comes to fruition, and delivery becomes necessary, by opening an equal and opposite position on the exchange, Short said. The DGCX model allowing for "delivery of last resort" is designed to ground the forward prices discovered on the exchange in the physical underlying market.

But as is the case for all futures contracts, to be successful there must be sufficient buying and selling (liquidity) to allow positions



Countdown in Dubai. John Short, director for steel and base metals at the DGCX, is eyeing a late-October launch of a regional, physically deliverable rebar contract modeled on a make/take delivery template.

to be closed. In other words, unless another participant (counterparty) is willing to assume the responsibility to make or take delivery of material, the original party must honor the contract.

Short said he expects liquidity to be generated initially by speculators. But some of them will be senior executives at steel companies, he said, because they have the best market knowledge on which to base decisions about whether they can make money on the

contracts. In time, the contracts will become an additional revenue stream for steel companies, leaving less-steel-savvy financial speculators in the dust, he said.

"The beauty of a rebar futures contract is that (people in) the steel industry can see a price on the exchange and use their skill and knowledge of steel markets and steel prices to take a view that the exchange prices are too high or low in relation to the physical market," Short said. "If they view it as too high, they can sell futures now and buy them back as the exchange price converges with the physical market price. The difference is profit. Or if they view the exchange price as too low, they can buy futures now and sell them back as convergence kicks in. In this situation, one could argue those from the steel industry are at an advantage. You could even say that they have 'insider knowledge' of steel prices because they have first-hand information, while other market participants such as funds, banks and the lay investor are reliant on second-hand information about prices."

Futures in general also should prove attractive to the physical steel trading community, which has come under increasing pressure to protect profit margins as dominant producers such as ArcelorMittal, which now controls around 10 percent of global production, sell more steel directly to consumers.

"In quiet markets it is very difficult for a trader to make a lot of money from back-to-back trading," Short said. "They've got to go long or short, and that involves taking additional price risk. In volatile markets like we have today, that risk is multiplied exponentially."

### London Metal Exchange

In June 2007, the LME announced it would launch ring trading of two regional, physically deliverable billet contracts in April 2008 (telephone and electronic trading are set to start two months earlier to build liquidity). To shepherd the contracts, the LME named Liz Milan, formerly of LME Category I member Sempra Metals Ltd., as steel business manager.

According to LME estimates, the merchant billet market last year totaled around 30 million tonnes out of some 512 million tonnes produced worldwide. Initially, the exchange hopes to become the pricing reference—whereby most physical transactions are settled at a discount or premium to the LME price—for this 30 million tonnes, but later to provide a reference price for the far larger trade in finished products made from billet,

particularly rebar, and also for the upstream scrap market.

It will be no easy task for the LME billet prices to gain this level of credibility in physical steel markets. But by targeting the Mediterranean and Far East markets and proposing delivery points initially in northern Turkey for its Mediterranean contract and South Korea for the Far East contract, the LME has chosen the most liquid physical markets. In 2006, Italy was the world's largest importer of billet, Vietnam was the fourth largest, Turkey came in sixth and Korea ranked ninth, according to figures provided by London's Iron and Steel Statistics Bureau.

The LME and DGCX contracts differ in several ways—not the least being that the LME has chosen to aim its first contracts at the semi-finished product link in the steel supply chain rather than finished products like its Dubai counterpart.

At the heart of the LME's proposal is the exchange's warehousing model, an established system that has propped up contracts in such base metals as copper, lead and zinc for more than 100 years.

"In our established contracts, the physical delivery aspect often runs to less than 1 percent, but it's extremely important," LME chief executive officer Martin Abbott said. "A phrase one might use is that it's not just the opportunity of delivery, it's the threat of physical delivery that forces convergence



**The LME's Liz Milan will shepherd the launch of ring trading of two regional, physically deliverable billet contracts in April 2008. The exchange has targeted the Mediterranean and Far East markets.**

between the exchange price and the physical market. The fact that only 1 percent of contracts are delivered doesn't actually matter because there is a threat that 100 percent could be delivered if the price were out of line. It is important, therefore, that we have the locations in appropriate areas."

Unlike the DGCX's make/take delivery model, the LME warehousing system encourages inventories to be built up in its global network of approved warehouses through the exchange's audited warrant system. The system is intended not only to provide an indication of global stock levels of a particular

metal, but also to provide an added incentive to producers, who are able to collateralize their production.

"The LME's warrant is a bankable document and is extremely close to cash for many financing banks," Milan said. "The physical side of the LME's business is extremely well audited by PricewaterhouseCoopers." Once a producer has delivered material into an LME-approved warehouse, a warrant is generated through the exchange that could be used as collateral to raise cash.

Abbott said he thinks this system will attract steel producers to the exchange. "It will soon become apparent to producers that, with this system in place, they will be able to collateralize their output and improve their financing position," he said. "Physical delivery is an integral part of what we do."

Some details of how the steel contracts will be handled remain open, but the LME plans to bring them to the ring in April, where they will be traded by Category I members via the same open-outcry format used for the exchange's base metals contracts. LME traders negotiate prices in five-minute trading sessions, setting monthly forward prices for metal as far out as 63 months. These prices are then fed into the exchange's telephone trading system, where business is conducted on a bid-and-offer basis. The exchange's online trading

**It was widely rumored—but never confirmed—that Alcoa circulated a memo threatening to fire anyone who entered into an LME contract**

## Hedging wasn't an easy sell for aluminum, either

The introduction of an aluminum contract on the London Metal Exchange in 1978 and a nickel contract in 1979 was probably the most decisive phase of diversification in the exchange's history.

In the 1970s, to aluminum producers like Alcoa Inc., Pittsburgh, and Alcan Inc., Montreal, the idea of the value of their metal changing on a daily basis at the whim of a bunch of traders in London was anathema. It was widely rumored—though never confirmed—that in the early days of the contract Alcoa circulated a memo threatening to fire anyone who entered into an LME-based contract.

At that time, aluminum was much more vertically integrated than copper so there was little chance for an independent opinion from other sectors of the industry, such as semi-fabricators or miners.

But the regular publication of "free market" aluminum prices in *Metal Bulletin* for two decades had opened the way for the introduction of an LME contract. In the end, it was the aluminum producers who lent the most credence to this quotation by themselves adopting it as the reference price for their regular contractual purchases of primary aluminum from the former USSR and its satellites during the 1960s and 1970s. They used the index to keep the metal off the market, where it undermined the credibility of their own producer

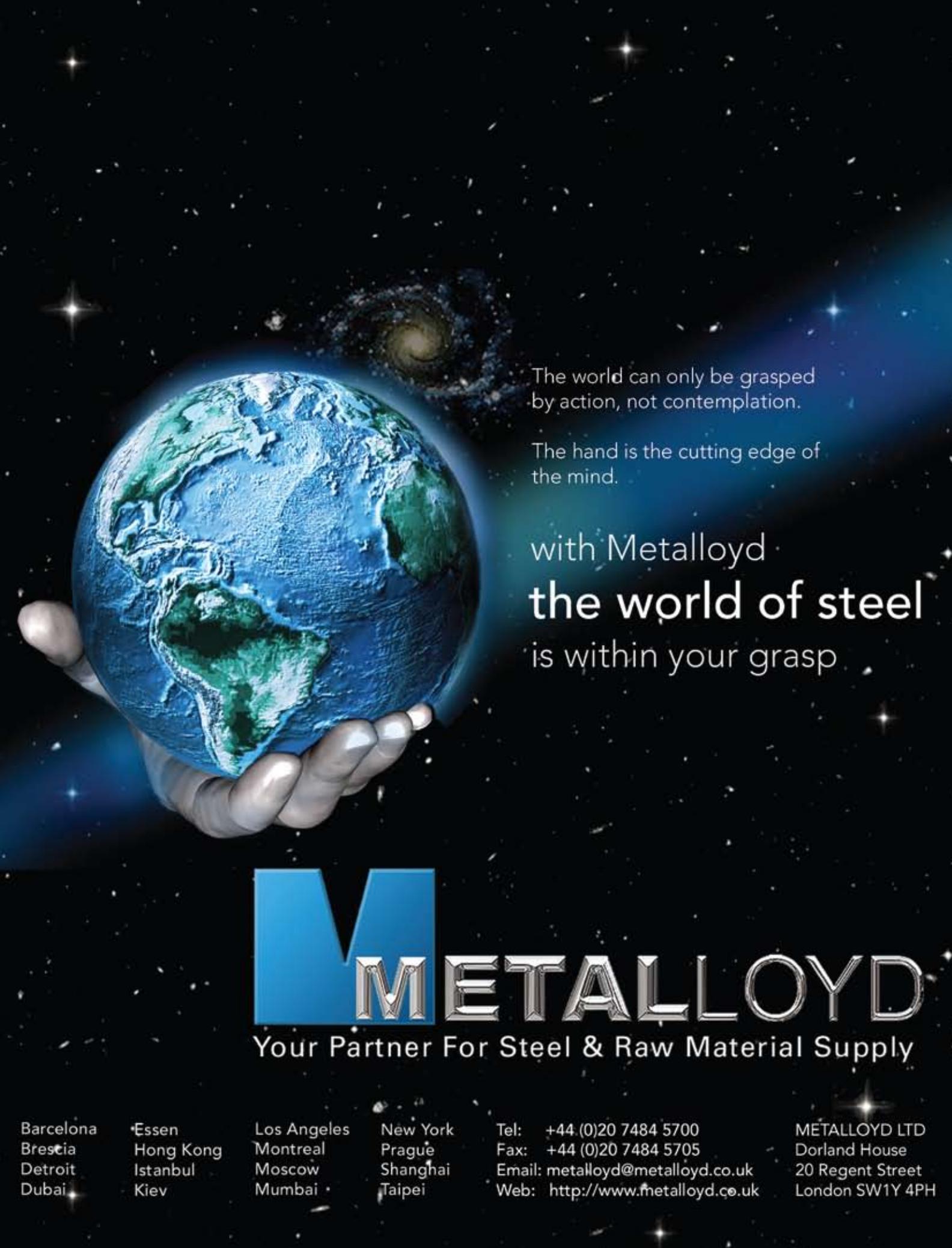
price. But this system came to an end in the mid-1970s.

In the face of such opposition, it was an act of faith on the part of the LME to launch the contract. But the LME correctly predicted that the continuing weight of metal seeping out of the then Eastern Bloc, together with the small amounts of independent (and therefore not vertically integrated) Western production, would generate sufficient volume for the new contract to take root. In the early stages it was touch and go, but changes to the contract specifications a couple of years after launch to make the Soviet metal more deliverable was a turning point from which the contract has never looked back.

Alain J.P. Belda, chairman and chief executive officer of Alcoa, the world's largest aluminum producer, described this transformation of opinion at an industry conference last year. "In general, the industry resisted for about 12 years until it became the way to price," he said. "Now we use the LME in every transaction—both internal and external."

Today, the idea of an aluminum market without an LME price and without the ability for all concerned to hedge would be unthinkable. **TREVOR TARRING**

*Trevor Tarring is former chairman of Metal Bulletin Plc.*

A hand is shown from the bottom left, palm facing up, holding the Earth. The Earth is depicted with realistic continents and oceans, set against a dark background filled with stars and a visible galaxy.

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by action, not contemplation.

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platform, Select, is active 24 hours a day.

"Right now, most steel is priced on the basis of third-party price assessments—people are pricing steel on the basis of telephone surveys or possibly semi-electronic price surveys," Abbott said. "With an active futures contract based on physical delivery, what we are offering them is a chance to be part of the price-making process so that, rather than taking control away from them, we're actually giving them control (and) much more involvement in their own destiny."

For the two billet contracts, trading will be



LME ceo Martin Abbott

in 65-tonne lots to the Gost 380-94 5sp/ps standard and to Chinese grade HRB500 20mNSi, delivered (if necessary) to LME-approved warehouses in free-trade zones. The billet sizes will be 120 millimeters square (Far East), 125 mm square (Mediterranean)

or 130-mm or 150-mm for both regions in 6- or 12-meter lengths. Production must be from approved suppliers (whose brands are designed as "good delivery" for a contract by the exchange). The grades have been chosen because they are suitable for making rebar.

The LME expects that liquidity initially will be developed by participants using the

exchange to buy and sell material for physical consumption, providing the basis for hedging to take place. "Using (the LME) as a pseudo-physical market will encourage people to go on to use it for simple transaction hedging. Only when there's a huge amount of liquidity will you see financial investment," Abbott said. "We're giving steelmakers more control tools and management options," he added.

Developing any of these contracts to a robust level is unlikely to be an overnight affair. Executives at all three exchanges readily concede they do not expect their contracts to become established for several years. All see industry acceptance as the main hurdle, and none expects the process of bringing steelmakers into the fold will be easy.

#### **First things first: Steel futures are not designed to curb or even affect price volatility**

## **Steel hedging is simply one way to mitigate risk**

Why hedge? The question isn't unreasonable.

While the world of exchange-traded derivatives is keen to point out the benefits of futures and that they have been developed as tools to serve industry, the steel community remains skeptical.

Lakshmi N. Mittal, ArcelorMittal's president and chief executive officer, the most influential figure in the steel industry today, gave voice to many of these concerns at AMM's Steel Success Strategies conference in New York earlier this year.

"Futures are essentially a mechanism for financial companies mainly dealing with hedging and futures. It is not a solution for curbing price volatility," he said in his keynote presentation. "What can really help is our own behavior, our own discipline, our own relations with our customers. Customers trust us directly rather than in (exchanges)."

But as the exchange-traded derivatives industry was quick to point out, futures contracts aren't designed to curb, or even affect, price volatility. They are merely designed to give industry participants the ability to protect themselves from price volatility.

And that logic seems clear to steel consumers. Important end-users have called on the world's commodity exchanges to launch futures contracts, and some are already using over-the-counter products provided by players like Koch Metal Trading Ltd. Mittal himself touched on the ra-



**Defining futures.** ArcelorMittal's Lakshmi N. Mittal cautions steelmakers that "futures are not a solution for curbing price volatility."

tionale behind these developments in the same speech. "Price volatility is helpful to no one, including our customers," he said. "It is hard to justify why a product should cost one price one year and a totally different one the next."

The issue of price volatility is one the exchanges have to counter. Many skeptics point to nickel prices on the London Metal Exchange, claiming that the involvement of the financial community and speculative players like hedge funds has been at least one of the causes of the significant price volatility seen in LME prices over the past two years. It is unlikely that they are entirely wrong, particularly given the significant fall in the LME cash price after the exchange changed its lending rules earlier this year, lowering the level at which those holding dominant long positions must lend to the market.

But while a wide range of analysts and other industry observers recognize this, they also insist that the benefits of a futures market far outweigh the possibility of increased volatility. They also point out that in the majority of LME markets, price volatility has been no more obvious than in off-exchange metals, such as molybdenum or even steel.

The wider industry also should remember that many of the world's most successful steel companies are already more than familiar with hedging their business risks. As recently revealed, ArcelorMittal has applied to become a Category III member of the LME to aid its business in base metals.

Despite the significant interest the wider business world has shown in the steel industry this year, driven in no small part by Mittal's creation of the world's first 100-million-tonne-a-year steelmaker, steel is still viewed as a poor relation to many of its peer industries.

Most would agree that steel has always been cyclical, boomeranging from boom to bust in a more and more erratic fashion. As a result, banks and other financiers continue to view the industry as high risk and high cost, and financing costs for the industry are accordingly high.

If the success of a wide range of base metal producers is anything to go by, integrating the concept of hedging and price risk management into its overall strategy could add momentum to the transformation of the steel industry into one of the most successful sectors in global business.

# Why you can't afford to ignore the obvious

The steel industry has been transformed by globalization since the turn of the millennium. Rapidly emerging economies in regions such as Asia, the Middle East and North Africa have been demanding more and more steel. Simultaneously, steel production in some regions has increased at a phenomenal rate. In less than a decade, China has gone from being the world's largest importer of steel to the world's largest exporter.

The net result has been a far more volatile market environment. Steel prices in some parts of the world have increased by as much as 25 percent so far this year, reaching record highs during the first quarter only to fall back to levels not seen since the end of 2006. U.S. price changes tracked by AMM have been milder, rising 12 percent early in the year only to return all those gains by July.

"For decades, steel prices had minimal price volatility, but this is no longer the case," said John Short, director of steel and base metals at the Dubai Gold and Commodities Exchange (DGCX).

"Steel prices now behave as a commodity, while the industry has inefficient controls to manage risk."

The exchanges aren't the only ones to have noticed the increased volatility. "The volatility during the past few years has been enormous," one prominent industry analyst said. "The increase in average prices year-on-year has been steady, but within that the range has been enormous. In some cases, it's nearly as much as \$100 per tonne."

Metal Bulletin Research analyst Denny Sabah said he believes that steel price volatility will continue growing. "The volatility of steel prices began in 2004, when China exploded onto the world stage, buying up everything it could get its hands on," he said. "This caused a surge

in world prices for practically every steel product and heavy investment in the steel sector, with vast amounts of new capacity coming on-stream. Such great levels of change in both supply and demand are bound to wreak havoc with prices.

"Steelmakers should consider themselves lucky that prices have not dropped to pre-2004 levels as we are seeing interest rates rising across the world and the current bad spell in world stock markets will squeeze the amount of credit available, thereby lowering potential investment in the near future. It will be interesting to see how this affects the steel sector," Sabah said.

An over-the-counter market in steel hedging has developed, however, offering tools to allow steel industry participants to manage their exposure to steel price volatility. Koch Metals Trading Ltd.'s OTC swaps for hot- and cold-rolled coil in U.S. and European markets are the most prominent of these.

"Steel prices will continue to be higher and more volatile than in the past," Jeff Kabel, Koch Metals vice president of steel trading, said. "Already in the U.S. alone, around 15 percent of transactions are done based on indices, which equates to between 10 million and 15 million tonnes." First introduced two and a half years ago, these tools are now being used by a wide cross-section of the industry to hedge risk, he said.

It is no secret that the London Metal Exchange's primary aluminum contract was launched to outright opposition from the industry in 1978 and survived despite only small amounts of merchant business. One of the first high-profile companies to publicly declare it was using the contract was Coca-Cola Co., which wanted to hedge its aluminum can costs. In a similar

way, end-users will be instrumental in the evolution of steel contracts.

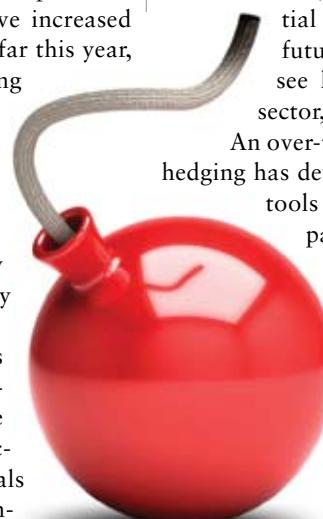
Last year, Tony Brown, senior purchasing vice president at Ford Motor Co., Dearborn, Mich., sent letters to his counterparts at other major automakers asking for their support in lobbying for the launch of a steel futures contract. Shortly afterward, German automaker BMW AG disclosed that it had already been using the OTC market to hedge its exposure to steel prices and would monitor the development of exchange-traded contracts closely.

"Over the last couple of years we've seen an inexorable glide upward in steel prices, which has caused us some pain. Some of our Tier 1 suppliers have been hit particularly hard," a source at a major European automaker said. "The concept of futures is very interesting to us. By locking in our steel procurement costs we can protect at least some of our profit margins in our day-to-day business."

The auto industry is not alone in supporting the launch of steel price risk management tools. Long products price volatility has put the construction industry under increasing pressure in recent years.

"It's a big issue because steel makes up a big chunk of our spending, so volatile steel prices have a very large effect on our balance sheet," said Ian Luke, director of procurement at multinational construction company Skanska AB, Solna, Sweden. "The marketplace for us is volatile for two reasons: Firstly, steel prices go up and down like nobody's business; and secondly, our market is in itself unpredictable. We can determine a volume of business, but what kind of business makes that up can vary considerably. Because of that, the quantities of steel involved also vary."

The problem has become more pronounced in the past few years, making business in the volatile environment increasingly difficult, a source at another major European construction company said. "What it's doing is forcing us to





look away from European markets for steel. It's quite clear at the moment that, had we bought steel from the Far East in November and December, we would have saved ourselves millions of euros on the increases in Europe between January and April. We're taking this very seriously."

Construction companies do not have the wherewithal to absorb these kinds of price fluctuations, another contractor said. "In our business, we are bidding for steel constantly. We might be in the situation that we consume 10,000 tonnes of steel one year and 50,000 tonnes the year after that. There's no predictability," he said. "Add to that the fact that the construction industry is seasonal, because in some of the countries we work in you can't get steel into the ground in certain months, and you've got a nightmare situation."

Consumers are not the only people who could use steel futures to protect their margins. Steelmakers dependent on outside raw material supply sources also could use the contracts to lock in prices.

Ugur Dalbeler, general manager of one of Turkey's largest mini-mills, Çolakoglu Metalurj AS, and president of the International Rebar Exporters and Producers Association, said he thinks steel futures will be particularly useful for steel mills in Turkey. "For many companies like those in Turkey, business depends on imports and exports rather than local deals," he said. "Fixing raw material prices and then selling products later on forces companies to open positions on the raw mate-

rial side without having any possibility of hedging their business on the sales side. Futures will allow companies (like ours) to minimize the risk they carry."

Many steelmakers already have the requisite skills to use these tools successfully, Dalbeler said. "At the moment we buy scrap in one currency and then sell our products to a different market, so we hedge our currency exposure. Doing something similar with our production is going to be very useful."

Dalbeler said he believes that if the contracts gain sufficient traction, they will be robust enough to serve as a benchmark for other products. "The LME's (proposed) contract, for example, will enable companies to fix long-term deals on the selling side not only on billets, but also on other long products," he said. "When futures start, it's going to set a benchmark in the steel industry that will enable us to sell our products based on these numbers and fix our raw materials in the much longer term."

Even fully integrated steelmakers will be able to use the contracts to their benefit, the exchanges insist.

"I can lock in aluminum prices as far forward as five years on a futures exchange or as far as 10 years with an OTC contract, but not for steel," Short said. "Banks cannot do this either and, as a result, will continue to view the steel industry as high-risk and lacking in transparency."

According to the exchanges, by integrating hedging mechanisms into their

exposure to the physical steel business, financial institutions can improve this situation.

"Banks lending to steel producers have performance risk on the one hand and price risk on the other," said Colin Heritage, director responsible for trade finance at London trading house Stemcor Holdings Ltd. "Working with traders and well-established offtakers, a bank can mitigate the performance risk, but what it can't do for other than short-term deals is mitigate the price risk."

As a result, banks see the steel industry as a high-risk borrower and charge accordingly. "The banks are always looking for a certain coverage of their loans from steel exports. For every dollar that they lend, they require that principal plus some additional comfort margin in terms of steel exports to cover the advance," Heritage said. "Typically speaking for steel, if you're looking at a three-year deal you would expect to see a coverage ratio of at least 25 percent in addition to the principal, and possibly 33 percent or even higher for higher-risk producers. The extent of the coverage ratio relates to the tenor of the advance and the perceived reliability of the producer. If banks can pin down future steel price risks by way of steel futures, that would significantly reduce the overall risk for the banks in lending to producers and enable banks to offer, and producers enjoy, a higher loan-to-production/exports ratio in the future than they might enjoy at the moment owing to steel price volatility."

Standard Bank Plc's director for base metals finance, Georgie Baker, agreed. While top-tier steel producers have benefited from competitive pre-production finance in recent years thanks to high prices, she said they could gain access to even more competitive rates if they hedge their production, thereby mitigating price risk. And less-established producers will benefit even more.

"For marginal-profit/second-tier steel producers looking for pre-production finance, the ability to mitigate price risk by offering the banks security against fixed-price sale of goods should certainly increase their availability of funds by monetizing the value of their sales. This provides the banks with at least one level of certainty in an uncertain world," Baker said.

# Futures are the messenger, not the message

One of the questions that has most concerned the steel industry has been whether the presence of financial investors in a futures market will increase price volatility.

Several prominent figures in the industry, citing the dramatic fluctuations in London Metal Exchange nickel prices during the past year, have speculated that the involvement of investors drove the nickel price to unnatural levels in 2006.

The exchanges' take on this is simple: Nickel pricing has been driven by simple supply-and-demand economics.

"The fact that nickel peaked at \$50,000-plus for cash delivery and is now back to \$32,000 has very little to do with the LME," Martin Abbott, the exchange's chief executive officer, said. "But the visibility of that price move has everything to do with the LME. That price move is down to one very simple factor, which is that there was not enough nickel around, and the nickel market is a classic example of a market in stress."

Bob Levin senior vice president of research at the New York Mercantile Exchange, agreed, saying the existence of a futures contract for nickel had only made volatility more obvious, not caused it. "It may be the case that when you have transparency you actually see the volatility, and people will say that because they've never seen this before (the introduction of futures has caused it)," he said. "It's as though you're blaming somebody who takes you to a window for what you see outside."

But do experts outside the exchanges agree? The International Monetary Fund's September 2006 World Economic Outlook Report seemed to.

"The analysis suggests that while investors may have played a role in providing liquidity to the markets, there is little evidence that speculative investments have been a significant driver of non-fuel commodity price movements," the report said. "During booms the market price can rise to a multiple of the production cost, although over the past couple of decades the market price has tended to return to a little above cost within a few years."

Metal Bulletin Research analyst Robert Cartmann attributed recent nickel price moves to a combination of fundamentals and investors in the market. "It's no coin-

cidence that nickel prices rose so strongly during 2006. This was the same year that stainless production increased by over 16 percent and that China became the world's largest stainless producer, while on the supply side a number of delays to new mines at the same time caused supplies to run below demand levels during 2006," he said.

Cartmann acknowledged, however, that "it is clear that a number of speculators were aware of these fundamentals and helped nickel prices move upward strongly by holding dominant positions on nickel contracts. These were eventually unwound during June of this year when



**Do financial investors equal price volatility? The advantage of a futures contract—increased liquidity and price transparency—outweigh the disadvantage of increased volatility, one analyst argues.**

the LME changed its lending guidance rules in such a way that it forced more nickel back onto the market. The consequent reaction in LME nickel prices has since been exacerbated by a downturn in the stainless steel market, with production cuts being announced worldwide, and by a global tightening of lending conditions that has moved investors away from such risky contracts."

Michael Widmer, head of metals research at Calyon Financial SNC, agreed. "I would find it hard to say that volatility in the nickel market this year was not at least in part due to investors," he said. "If you look at the open positions held by commodity index funds (on the LME), unsurprisingly you come up with some pretty big numbers in the last few years. In 2005, for instance, the index funds held about 33 percent of open interest in nickel on the LME, and they are only one type of investor."

Widmer was equally eager, however, to

highlight the benefits of having investors in the market, saying that these outweigh the disadvantage of any increase in price volatility.

"On the one hand, (investors) cause volatility, but on the other hand they add liquidity to the market. Investors go in and out of the market as they see fundamentals change. The reason they buy metals is primarily because they want to make money out of the price movement," he said. "I would say that the advantages of a futures contract—increased liquidity and price transparency—outweigh the disadvantage of increased volatility."

The LME also wants to emphasize these advantages. "Investors clearly play a huge role in providing liquidity and therefore enable others to offset their risk and hedge," a spokesman for the exchange said.

While financial speculators will invest in a commodities market to make a profit from price movements, they are forced to assume the risk of other participants in order to generate that profit. This is something that producers can use to their advantage.

Defenders of the nickel futures market are quick to point out that, despite increased volatility, producers haven't exactly suffered. Russia's MMC Norilsk Nickel, for example, reported a 154-percent jump in profit in 2006.

Neither have nickel consumers suffered. Stainless producer Outokumpu Oyj, Espoo, Finland, posted a 2006 pre-tax profit of \$1 billion, up from about \$30 million in 2005, and Allegheny Technologies Inc., Pittsburgh, whose Ludlum unit is one of the three largest U.S. stainless producers, posted net income of \$571.9 million in 2006, up from less than \$360 million a year earlier and just \$20 million in 2004.

"Interestingly, the reason why producers often will not give fixed prices to customers, especially in the case of publicly quoted companies, is that they need to achieve the average of every month, because that's what the shareholders want," Abbott said. "But using (futures), they can give a fixed price and also put themselves back to market. What many steel producers may do is actually use (futures) to maintain their exposure to price volatility rather than control it. But at the same time, they'll be able to give stable prices to their customers."

# How to Hedge

**AMM's do-it-yourself guide to understanding steel futures kicks-off by explaining the difference between cash-settled and physically delivered contracts then goes on to show, by example, how the New York Mercantile Exchange, the London Metal Exchange and the Dubai Gold and Commodities Exchange (DGCX) models are expected to work.**

## CONTRACTS: CASH-SETTLED

To date, Nymex is the only major exchange to have proposed a cash-settled steel futures contract.

Cash-settled contracts are founded on pricing indices, or benchmarks, usually compiled by third-party providers, which establish the settlement price for contracts at a pre-determined frequency.

Robert A. Levin, Nymex senior vice president, said that if the index price is higher than the amount for which a participant bought a contract, the buyer would receive the difference between the two through the exchange while the seller of a contract would be obliged to pay the difference through the exchange. If the price generated by the index is lower than the contract price, the opposite would be true: the contract buyer would be obliged to pay the difference between the two through the exchange while the seller would receive the difference through the exchange.

These balancing payments are made on a daily basis throughout the time that the contract remains open so that positions are “marked-to-market” and can be easily closed.

By taking an equal and opposite position in a cash-settled market to a position in the physical market, a participant will make a financial profit from its futures transactions equal and opposite to any loss generated by physical transactions, and vice-versa.

Participants using this type of contract for hedging purposes will leave their positions open until the settlement date of each contract, at which point they will receive or pay the final net difference.

## CONTRACTS: PHYSICALLY DELIVERED

Both the DGCX and LME have decided to launch contracts in which price convergence will be achieved by the possibility, or threat, of physical delivery on closing.

Under the terms of this kind of contract, the principals agree to deliver, or receive delivery of, a commodity at an agreed price on a future date. The potential physical delivery avoids discussion about the reliability of the settlement price.

If the correlation between the physical spot market price and the exchange cash price were to break down—the risk of this happening is known as “basis risk”—the contracts are designed so that sellers would attempt to deliver physical material through the exchange if the exchange-traded price is too high, or take material off-exchange if the exchange-

traded price is too low. Buyers would behave in the opposite manner, looking for the better deal, and therefore balance out any difference between the physical spot market price and the exchange-traded price.

In practice, however, physical delivery is only supposed to happen in a small minority of contracts (less than 5 percent, although the proportion may be higher in a contract’s early days) because the delivery process is usually a complex and inconvenient one that most principals prefer to avoid.

Most contracts are closed, or canceled out, by purchasing a covering position—either buying a contract to cancel out an earlier sale (covering a short) or selling a contract to liquidate an earlier purchase (covering a long), while principals manage their physical position separately and directly with suppliers and end-users.

## FORWARD CURVE

The forward curve of a traded futures contract is compiled at a particular moment based on the price at which buyers and sellers are trading futures contracts, and is used for “mark-to-market” accounting.

The curve changes constantly and should not be confused with a price forecast, which is designed to predict what spot market prices will be in the future. A forward curve is merely a representation of the future value that has been attributed by the market to a commodity or financial tool at a particular time by active trading.

There are two main types of forward curve that can demonstrate the market’s sentiment about future prices: backwardation and contango.

Unlike futures contracts based on financial products, the forward curve in commodity-based futures markets is usually a backwardation, meaning that short-term prices tend to be higher than longer-term prices. This is not necessarily a sign of a bear market. Backwardation in commodities means that the market has attributed a higher value to the underlying commodity available in the current marketplace—now being when a commodity tends to be needed—and is not yet willing to pay more for material in the future, perhaps because there is a perceived shortage of material in the near term.

Contango forward curves are less common than backwardations and occur when short-term prices are lower than longer-term prices. This is not necessarily a sign of bull market and often indicates that there is a short-term oversupply in the market or that there is an expectation of a long-term structural change in the market.

# Steel futures: The Nymex model

January 2008				
Cash	3 month	6 month	9 month	12 month
\$579	\$584	\$589	\$591	\$595

**New scenario: The forward curve of prices increases, which is known as a contango. There is a good supply of material available for delivery in the near term, but the market expects this situation to tighten as time progresses.**

In January 2008, a welded pipe producer wants to offer a January 2009 sales price to one of its customers for 10,000 tonnes of welded pipe and wants to calculate the price based on the December 2008 (12-month) price of hot-rolled coil.

In order to do this, the pipe producer buys 500 20-ton lots of

Nymex hot-rolled coil futures contracts covering 10,000 tonnes of hot-rolled coil at the 12-month forward (December 2008) price of \$595 per tonne, the market's current view of what spot prices will be in December 2008.

Using this forward price and factoring in conversion costs of approximately \$60 per tonne, the pipe producer calculates a January 2009 sales price of \$655 per tonne for 10,000 tonnes of welded pipe, and closes a fixed-price contract with its customer at this price.

December 2008				
Cash	3 month	6 month	9 month	12 month
\$615	\$595	\$582	\$580	\$579

**New scenario: The forward curve of prices declines, which is known as a backwardation. In this case, a strike at a major U.S. hot-rolled coil producer has caused a temporary shortage of physical material available for delivery in the near term but the market expects that this supply situation will improve as time progresses.**

A strike at a major U.S. steel mill has caused a temporary shortage of hot-rolled coil for prompt delivery in the local market. The result has been a steady price escalation, with the December 2008 spot market trading at \$615 per tonne. *SteelBenchmark* has generated a price of \$615 per tonne to reflect this.

To meet the demands of its project, the pipe producer enters the physical market and secures 10,000 tonnes of hot-rolled coil at \$615 per tonne—\$20 per tonne (\$200,000) more than the \$595 that was the market's view of December 2008 prices back in Janu-

ary 2008 and the price on which the pipe producer based its fixed-price contract. This is an off-exchange, physical transaction for the exact specification, size and grade of product demanded by this particular customer.

Simultaneously, the pipe producer's Nymex contracts, bought at \$595 per tonne in January, are settled using the \$615 per tonne price generated by *SteelBenchmark*, and the pipe producer receives the \$20-per-tonne positive difference between the two (\$200,000).

The net result is that, once the two transactions have been balanced (an extra outlay of \$200,000 in the physical market plus a financial profit of \$200,000 from the futures transactions), the pipe producer has bought 10,000 tonnes of hot rolled coil at \$595 per tonne, even though the December 2008 spot market price is \$615 per tonne.

The same transaction presented another way would look like this:

Physical		Nymex
January 2008	Pipemaker agrees to sell 10,000 tonnes of welded pipe at December 2008 HRC price of \$595 per tonne plus conversion cost of \$60 per tonne = \$655 per tonne in January 2009	Pipemaker buys 500 Nymex contracts (10,000 tonnes of HRC) at 12-month price of \$595 per tonne
December 2008	Pipemaker buys 10,000 tonnes of HRC at \$615 per tonne, making a \$20 per tonne loss on January 2008 projection	Pipemaker sells 500 Nymex contracts (10,000 tonnes of HRC) at cash price of \$615 per tonne, making \$20 per tonne profit
Net result:	\$20-per-tonne loss in physical market, plus \$20-per-tonne profit on exchange transaction: the pipemaker has purchased 10,000 tonnes of HRC at \$595 per tonne in December 2008	

By using the contract to lock in its December 2008 purchase price, the pipe producer has been able to offer a fixed-price sales contract to its welded-pipe customer more than 12 months in advance and still protect its margin.

A similar hedging model could be used by a hot-rolled coil producer to guarantee its forward sales price or by a service center or distributor to protect its profit margin.

# Steel futures: The LME model

January 2008				
Cash	3 month	6 month	9 month	12 month
\$519	\$522	\$527	\$530	\$534

**New scenario: The forward curve of prices is a contango. There is a good supply of material available for delivery in the near term, but the market expects this to tighten as time progresses.**

In January 2008, a billet producer wishes to raise financing for a new melt shop and to lock in his December 2008 sales price for 6,500 tonnes of billet in order to improve the terms of the financing he can get from his lenders.

To do this, the billet producer sells 100 65-tonne LME billet contracts covering 6,500 tonnes of billet at the 12-month forward (December 2008) price of \$534 per tonne—the market's current view of what prices will be in December 2008.

Able to guarantee revenue from this transaction, the billet producer secures a loan for its expansion project at a competitive rate.

December 2008				
Cash	3 month	6 month	9 month	12 month
\$514	\$519	\$524	\$529	\$532

**New scenario: The forward curve of prices is a contango. A colder-than-expected winter has limited construction work and there is now a surplus of material available for delivery in the near-term, although the market expects this surplus to fall as the weather becomes milder.**

Unexpected cold weather has limited construction work and demand for products made using billet has declined. The result has been a steady price decline, with the December 2008 spot market trading at \$514 per tonne.

The billet producer enters the physical market and sells 6,500 tonnes of billet to his customers at \$514 per tonne—\$20 per tonne (\$130,000) less than the \$534 that was the market's view of December 2008 prices back in January 2008 and the price on which the billet producer based his application for financing. This is an off-exchange, physical transac-

tion for the exact specification, size and grade of product that the billet producer makes.

Simultaneously, the billet producer buys back 100 65-tonne LME billet contracts covering 6,500 tonnes of billet at the current LME cash price of \$514 per tonne, making an effective profit of \$20 per tonne (\$130,000) after selling the same volume at \$534 per tonne in January.

The net result is that, when the two transactions are balanced (a \$130,000 loss in the physical market plus a financial profit of \$130,000 from the futures transaction), the billet producer has sold 6,500 tonnes of billet at \$534 per tonne even though the December 2008 spot market price is \$514 per tonne.

The same transaction demonstrated using a different model looks like this:

Physical		LME
January 2008	Billet producer secures financing based on December billet sales price of \$534 per tonne for 6,500 tonnes	Billet producer sells 100 LME billet contracts (6,500 tonnes of billet) at 12-month price of \$534 per tonne
December 2008	Billet producer sells 6,500 tonnes of billet at \$514 per tonne, making a \$20 per tonne loss on January 2008 projection	Billet producer buys 100 LME billet contracts (6,500 tonnes of billet) at cash price of \$514 per tonne, making \$20 per tonne profit on January 2008 LME transaction.
Net result:	\$20-per-tonne loss in physical market, plus \$20-per-tonne profit on exchange transaction: the billet producer has sold 6,500 tonnes of billet at \$534 per tonne in December 2008	

By using the contract to lock in its December 2008 billet sales price, the billet producer has been able to guarantee a certain amount of revenue 12 months in advance.

A similar hedging model could be used by a re-roller to protect its profit margin and offer long-term sales contracts to its customers, or by a trader to protect its profit margin.

# Steel futures: The DGCX model

January 2008				
Cash	1 month	2 month	3 month	4 month
\$589	\$595	\$599	\$604	\$609

**New scenario: The forward curve of prices is a contango. There is a good supply of material available for delivery in the near term but the market expects this to tighten as time progresses.**

In January 2008, a construction company wishes to bid for a project in June 2008 and wishes to base its bid proposal on the May (four-month) price of reinforcing bar.

To do this, the construction company buys 100 10-tonne DGCX rebar contracts covering 1,000 tonnes of rebar at the four-month forward (May 2008) price of \$609 per tonne—the market's current view of what spot prices will be in May 2008.

Using this price to calculate its proposal, the construction company's bid wins the contract.

May 2008				
Cash	1 month	2 month	3 month	4 month
\$658	\$644	\$638	\$631	\$627

**New scenario: The forward curve of prices is a backwardation. The supply of Turkish rebar to the Persian Gulf has been disrupted for delivery in the near term, although the market expects that this supply will resume as time progresses.**

Strong markets in Europe have attracted the attention of Turkish mills, a key rebar supplier to the Middle East construction industry, and there is a shortage of material available for delivery in the near term. The result has been a steady price escalation, with the May 2008 spot market trading at \$658 per tonne.

To meet the demands of its project, the construction company enters the physical market and secures 1,000 tonnes of rebar at \$658 per tonne—\$49 per tonne (\$49,000) more than the \$609 that was the market's view of May 2008 prices back in January 2008 and the price on which the construction company based

its winning bid. This is an off-exchange, physical transaction for the exact specification, size and grade of product demanded by the construction company.

Simultaneously, the construction company sells back to the market 100 10-tonne DGCX contracts covering 1,000 tonnes of rebar at the currently trading cash price of \$658 per tonne, making a \$49-per-tonne (\$49,000) profit on its January 2008 purchase price of \$609 per tonne.

The net result is that, when the two transactions are balanced (an extra outlay of \$49,000 in the physical market plus a financial profit of \$49,000 from the futures transaction), the construction company has bought 1,000 tonnes of rebar at \$609 per tonne, even though the May 2008 spot market price is \$658 per tonne.

The same transaction presented another way would look like this:

Physical		DGCX
January 2008	Construction company bids and wins contract for June 2008 construction project, budgeting rebar purchasing price of \$609 per tonne	The construction company buys 100 DGCX contracts (1,000 per tonnes of rebar) at four-month price of \$609 per tonne
May 2008	Construction company buys 1,000 tonnes of rebar at \$658 per tonne, making a \$49 per tonne loss on January 2008 projection	Construction company sells 100 DGCX contracts (1,000 tonnes) at cash price of \$658 per tonne, making \$49 per tonne profit on January 2008 DGCX transaction
Net result:	\$49-per-tonne loss in physical market, plus \$49-per-tonne profit on exchange transaction: the construction company has bought 1,000 tonnes of rebar at \$609 per tonne in May 2008	

By using the contract to lock in its May 2008 rebar purchasing price, the construction company has been able to successfully base its bid proposal for a construction project on a specific price and still protect its margin.

A similar hedging model could be used by a rebar producer to guarantee its forward sales price, or for a rebar fabricator to protect its profit margins and offer long-term contracts to its customers.



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# THE ABCs OF STEEL FUTURES: A GLOSSARY

## A

**ADV** — Average daily volume.

**Algorithms, algorithmic trading** — Advanced trading strategy based on complex mathematical calculations. Algorithms are created by humans but inputted into computers that trade by themselves, usually buying contracts in bulk.

**Approved delivery facility** — A location or warehouse approved by, but not owned by, an exchange for delivery of exchange contracts.

**Arbitrage (the Arb, Arbing)** — The simultaneous purchase and sale of similar commodities in different markets to make a profit from the difference in prices between those markets.

**Ask** — A sales price offered by the holder of a commodity (see *Bid*).

**Automated trading** — Trading functionality powered by an electronic system using either algorithms or stops.

## B

**Back office** — Slang for the place, or system, where all executed trades are cleared.

**Backwardation** — When the cash (spot) price is higher than the future price, generally indicating a short-term lack of physical stock (see *Contango*).

**Bandwidth** — The measure of volume capacity that is able to pass through to exchanges from electronic trading systems.

**Basis** — The difference between the spot price and the nearest future price.

**Basis point** — The unit (equal to 1/100th of 1 percent, or 0.01 percent) used to express the change in any financial instrument or commodity price.

**Bear** — Someone who thinks prices will decline.

**Benchmark** — An established price that becomes a global standard.

**Bid** — The highest purchase price offered by a buyer (see *Ask*).

**Block trade** — A pre-arranged large trade of one contract to be executed usually during a designated trading period.

**Broker** — A company or person that buys and sells on behalf of others for a fee.

**Bull** — Someone who thinks prices will rise.

**Buy in** — To close or cover a short position.

## C

**CCP** — Central counterparty (see *Clearing house*).

**CFTC** — Commodity Futures Trading Commission. The U.S. agency that ensures the open and efficient operation of futures markets in the United States.

**Clearing** — Where all bought and sold contracts between two sides of a transaction are matched, processed and settled.

**Clearing firm** — An exchange member that will act as intermediary between an investor and a clearing house. The firm is responsible for handling the necessary paperwork and carries a portion of the counterparty risk.

**Clearing house** — Where transactions are

cleared and settled. The clearing house bears the majority of the credit risk, in contrast to an over-the-counter (OTC) transaction in which the individual buyers and sellers bear the risk.

**Contango** — When the future price is higher than the cash (spot) price. Considered to be a normal market condition (see *Backwardation*).

**Counterparty** — The buyer or seller on the other side of every transaction.

**Counterparty risk** — The risk to each side of a contract that the counterparty will not live up to its contractual obligation.

**Cover** — Purchase or sale of futures to offset a trader's position.

**Credit** — The borrowing capacity of an individual or company.

**CTA** — Commodity trade advisor. A company that advises others on the trading of commodity derivatives.

## D

**Delivery point** — See *Approved delivery facility*.

**Depth** — The volume of trade in a particular contract.

**Derivative** — A contract with a price determined by an underlying asset. The most common forms of derivative are futures, forwards and swaps.

**Distribution** — Refers to the reach of electronic trading systems. Select, the London Metal Exchange's electronic platform, has limited distribution, for example, because it is open only to exchange members.

**Dubai commodity receipt** — An electronic warehouse receipt that can be used to collateralize debt in the Dubai Gold and Commodities Exchange (DGCX) steel rebar contract.

## E

**EFP** — Exchange for physicals: trading a physical position in a commodity for a futures position.

**Electronic trading** — Trading on a screen-based computer platform rather than through open outcry or telephone trading. Bids and offers are normally matched by an exchange's electronic trading system.

**Execution** — Finalizing a transaction.

**Expiry (Expiration)** — The date on which a futures contract becomes due.

## F

**Fair value** — The equilibrium price for a futures contract. Equal to the spot price after taking into account compounded interest and dividends lost over a certain period.

**FCM** — Futures commission merchant (see *Broker*).

**Fee** — Sum of money paid for each transaction, which can include clearing fee, broker fee, execution fee and margins.

**Floor** — Where trading through open outcry takes place (see *Pit and Ring*).

**Front end** — The execution side of a broker's trading software.

**FSA** — Financial Services Authority. The body responsible for the regulation of all British exchanges.

**Futures** — A standardized contract or agreement that requires the counterparties to buy or sell a fixed amount of a commodity or a financial instrument at a later date at a specific price.

**Futures Industry Association** — U.S. group representing the derivatives industry.

**Futures Options Association** — British group representing the derivatives industry.

## G

**Give up** — When a broker passes a client's order to another broker but it is still recorded as being transacted through the original broker.

**GTC** — Good until canceled: an order to a broker to buy or sell at a fixed price.

## H

**Hedge** — To offset a position in one market with an equal and opposite position in another market.

**Hedge fund** — Investment companies holding large sums of money that invest to make a profit. Exempt from the same level of regulation as mutual funds.

## I

**Initial margin** — Funds used as a deposit against a futures transaction.

**Introducing broker** — A broker who exercises a *Give up*.

**ISDA** — International Swaps and Derivatives Association. The body whose standardized contracts often provide a template for over-the-counter (off-exchange) derivatives transactions.

**ISV** — Independent software vendor: A company that makes or sells software for specialized users, such as trading houses, institutions or anybody with access to an exchange.

## K

**Kerb session** — Trading session at the LME when all metals can be traded simultaneously outside of scheduled trading sessions (rings).

## L

**Last trading day** — The final day on which trading may take place in a particular futures delivery month.

**LCH Clearnet** — Independent clearing house used to clear LME trades.

**Lending** — The sale of a commodity for a nearby prompt date in exchange for a later prompt date.

**Liquidity** — The volume of trade in a particular commodity.

**Long** — Open position for the purchase of a commodity or financial instrument (see *Short*).

**Lot** — The amount of material for which each futures contract is written.

**M**

**Margin** — The percentage of a contract purchase price a participant must pay (see *Initial margin*).

**Margin call** — Demand from a broker to deposit additional money or securities to bring a participant's account up to a minimum margin.

**Market maker** — A participant with exchange trading privileges that has an obligation to buy when there is an excess of sell orders or sell when there is an excess of buy orders. Market makers often receive fee waivers or rebates from exchanges for providing this service.

**Markets in financial instruments directive**

**(Mifid)** — European Union legislation covering investment intermediaries and financial markets effective Nov. 1, 2007, superceding the investment services directive (ISD).

**Market surveillance** — Exchange-run oversight of market integrity.

**Mark-to-market** — Assigning value to a futures contract based on the current market price.

**MASP** — Monthly average settlement price: the average of a month's daily official settlement prices.

**Matching** — The process of allocating a buyer and a seller to a particular trade.

**Maturity** — When a futures contract comes due.

**Minis** — Equivalent exchange contracts with smaller lot sizes.

**N**

**Naked** — An un-hedged position.

**National Futures Association** — Develops rules, programs and services to safeguard market integrity and protect investors in the U.S. futures industry.

**Nearby** — The nearest delivery date of a commodity futures market.

**O**

**Offer** — A sales price placed by an exchange member.

**Off-exchange** — See *OTC*.

**Official price** — The contract price set by the LME for all contracts in the official trading session (ring), which take place every business day. Sets a benchmark for the day.

**Open interest** — The number of futures yet to mature, be filled or delivered.

**Open position** — A position that is yet to mature.

**Option** — The right, but not the obligation, to buy or sell a specific amount of a given commodity at a specified price during a specified period.

**Order routing** — System allowing clients to access online trading through a broker's system. All trades are executed in the name of the broker.

**OTC** — Over the counter: Transactions conducted between two counterparties without the use of an exchange or clearing house.

**P**

**Pit** — Location where exchange members trade via open outcry (see *Floor* and *Ring*).

**Platform** — The method in which trades are executed, usually open outcry, electronic or telephone.

**Position** — The number of futures contracts a participant has open to buy or sell a commodity or financial instrument.

**Position limit** — Set by regulatory bodies to limit the size of positions.

**Prompt date** — The date at which a contract is deliverable.

**R**

**Ring** — LME trading floor where members trade via open outcry (see *Pit* and *Ring*).

**Risk management** — Business to mitigate exposure to business elements. This can be from currency exposure to climate anomalies.

**Rollover** — Reinvesting funds from a mature contract into a new issue of the same or similar contract.

**S**

**Select** — The LME's electronic trading platform.

**Settlement price** — The official daily price of a futures contract.

**Short** — Open position for the sale of a commodity or financial instrument (see *Long*).

**Side** — One half of a trade: either buy or sell.

**Spot (cash)** — The price of a contract at the first available settlement date.

**Spread** — The difference between the bid and ask price of a contract. Also the difference between the spot price and a futures price.

**Squeeze** — An upward price movement caused by covering of short positions.

**Stops** — Limits on the number of trades that can be matched.

**Swap** — Traditionally, the exchange of one security for another to change the maturity, quality of issues or because investment objectives have changed.

**T**

**Tender** — Notice to exchange's clearing organization of intention to initiate physical delivery to satisfy a short position.

**Tick** — The minimum upward or downward movement in the price of a contract.

**Transaction** — A single trade. Can be of multiple but identical contracts.

**V**

**VAR** — Value at risk: A technique used to estimate the probability of portfolio losses based on the statistical analysis of historical price trends and volatility.

**Volatility** — The frequency of variation in a contract price.

**W**

**Warrant** — Certificate of physical deposit that gives title to physical metal in an exchange-approved warehouse.

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