

# Metals Week

March 23, 2009

## Moly oxide slips on slow demand and weak China buying

### STEEL & FERROALLOYS

New York—Molybdenum oxide and ferromolybdenum prices eased last week amid weak demand in Asia, Europe and North America and signs that Chinese buying of oxide may be slowing, market participants said.

The volume of business reported by market participants was down substantially on recent weeks, largely because most of the moly business to China is now being concluded directly between producers in the US and South America and not by European traders.

According to one European trader, the Chinese domestic price of ferromoly has come down below the Yuan 100,000/mt level to Yuan 98,000 (\$14,353.51/mt), which

gave no margin to Chinese converters importing moly oxide at current price levels. "The arbitrage window is shutting," the trader said.

Meanwhile, there are also reports that the Chinese carbon and stainless steel industries are reining in production levels, which rose in December, January and February, to avoid building large surpluses of unsold material.

"Chinese steel exports are slowing and I think they're realizing that they can't sell all this steel they're making," said the trader. "They obviously thought the stimulus package was going to generate more demand, and perhaps

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## Chinese seek to import indium from Japan at \$200-230/kg

### MINOR METALS

Tokyo—Chinese trading houses are seeking to import indium from Japan at \$200-230/kg CIF, as their Japanese are keen to reduce their inventories before the financial year ends this month, market sources said last week.

Japanese trading house and consumer sources, who have been looking to export indium into China since February, said they have identified interested buyers bidding \$200-230/kg CIF China. One seller said he did not close the

deal as he found the bid level to be too low, while the second source suggested closing a deal at roughly \$200/kg CIF China.

"There are some desperate sellers who want to sell and generate cash before the year-end, as they have given up all hopes that indium prices will go up in the near future," the second source said.

Chinese buyers are likely to benefit from importing from Japan as domestic Chinese indium prices are \$320-330/kg, a local trader said.

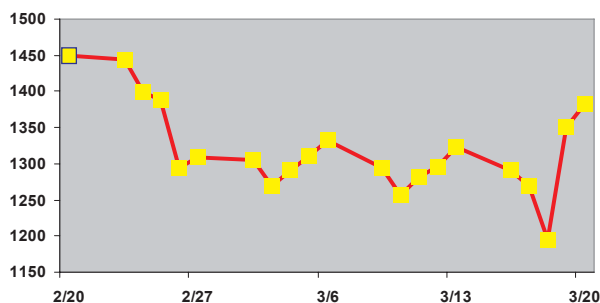
China is a net exporter of indium, producing more than 180 mt/year while consuming less than 40 mt/year, according to a Japan Metal Economics Research Institute estimate.

China's domestic indium prices have risen on the possibility that the country's State Reserve Bureau will

*continued on page 11*

### Silver Price Bounces to \$13.827/oz

COMEX spot silver, ¢/oz



Silver prices rebounded last week to recoup earlier losses as the metal was caught in the gold market rally that was triggered by the Fed's action to revive the financial system. Silver rose further on March 20 to close even as gold eased. COMEX spot silver gained 28¢ to settle at \$13.827/oz March 20, after gaining \$1.55 the previous day. Weakness of the dollar and labor problems in Peru also supported the rebound.

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## ALUMINUM

### Indalex, lenders in talks for DIP funds post-Chapter 11

New York—US aluminum extruder Indalex remains in negotiations with its senior lenders for debtor-in-possession financing after the company filed for Chapter 11 bankruptcy protection, and operations continue as normal, said a company spokesman. Indalex President and CEO Timothy Stubbs was not immediately available for comment.

Indalex on March 20 filed for Chapter 11 bankruptcy protection with the US Bankruptcy Court in Delaware, leaving its top three creditors with more than \$18 million in unpaid debts. The filing only affects Indalex's US operations.

According to court filings, Indalex owes Alba Aluminium Bahrain \$7.13 million; Alcoa, \$6 million; and Rio Tinto Alcan, \$5 million. Others among the top 30 creditors include Scholz Aluminum, \$2.5 million; Asia Aluminium, \$1.8 million; Exco Extrusion dies, \$720,591; Ohio Valley Aluminum, \$600,000; Metal Exchange, \$350,000; Alexin, \$272,000; Hao Mei Aluminum, \$240,000; and Schupan and Sons, \$189,000.

#### Metals Week price index

|                         | Mar 19 | Week Ago | Month Ago | Year ago |
|-------------------------|--------|----------|-----------|----------|
| MW Base Metals          | 206.0  | 200.7    | 196.7     | 463.7    |
| MW Precious Metals      | 195.8  | 194.6    | 205.4     | 331.2    |
| MW Nonferrous Composite | 201.9  | 198.2    | 200.2     | 410.7    |

Indalex had \$356 million in total assets and \$456 million in total debts as of December 31.

"During the [initial] process, Indalex intends to fund its North American operations by using its own cash flow," said the spokesman, adding that talks with its lenders are progressing. He could not say how much DIP financing Indalex is seeking.

"From Indalex's perspective, we see this [bankruptcy filing] very much as a logical next step," added the spokesman, pointing to the recent hiring of Jefferies & Company as an advisor for Indalex's debt restructuring. In February, Indalex defaulted on its revolving credit facility with JP Morgan and others, and the company announced it was granted a 30-day extension while it sought to reduce its debt.

On March 4, Indalex was in default again, but its lenders granted the company a waiver to continue to tap into its \$150 million revolving loan until March 27, pending a bankruptcy filing.

As part of the deal with the lenders, Indalex agreed to not sell certain assets. When asked about asset sales post-bankruptcy, the spokesman said, "It is premature because the preventions still exist without court approval."

"Chapter 11 is a structured process that will allow us to continue to operate in a court-supervised way," said the spokesman, adding that the protection will allow the company to focus on its reorganization. "We continue to operate as a going concern while the financial situation is resolved. It allows us to continue day-to-day operations in a usual manner."

The spokesman said that Indalex's management and board would remain intact.

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According to the spokesman, Indalex on March 23 was to file first-day motions with the court, and those motions were expected to be approved. First-day motions are designed to ensure that the company can maintain normal business operations with employees, suppliers, customers and other stakeholders. The court considers the first-day motions at a first-day hearing that usually takes place on the first or second day of a Chapter 11 case.

The spokesman said upon filing Indalex has an automatic stay, which grants the company protection from its creditors. "The Chapter 11 filing permits the daily operations to continue and our facilities and offices to keep operating," he said. "Our employees will be paid, and goods purchased after the filing date will be paid for in orderly course of business."

In late February, Alcoa won a judgment against Indalex for \$6 million, plus interest and attorney's fees, in a civil lawsuit filed in a Chicago-area court. The court recently issued "citations to discover assets" for a number Indalex executives, including CEO Stubbs. A hearing was scheduled for March 26, according to court documents. A spokesman could not comment on the case.

Indalex is an aluminum extruder that was acquired in 2006 by Sun Capital Partners from Honeywell International. Residential housing and transportation are the company's primary end markets.

Indalex said in February that the extrusion industry had experienced a deep unprecedented downturn and it was unclear when the downturn would end.—*Tina Petersen*

## Japan settles Q2 aluminum premiums at \$56-58/mt CIF

Tokyo—Contract premiums for Good Western-grade primary aluminum to be imported into Japan for the second quarter of 2009 settled at \$56-58/mt plus London Metal Exchange cash on a CIF Japan basis, market sources said last week. Most of the deals settled last week, though Platts reported one settlement the week before.

The Japanese traders and consumers have generally won a \$1-2/mt reduction in the premiums from the previous quarter's \$58-62/mt plus LME cash. This was despite other Asian consumers paying spot premiums of more than \$65/mt plus LME cash CIF, while Platts has assessed spot CIF Japan premiums at \$55-58/mt.

The quarterly contract premiums fell in reflection of the demand slowdown in Japan, notably in the automotive sector. Some Japanese consumers had bid for \$55/mt CIF or even less, but producers maintained that the market is stronger in the rest of Asia.

"The floor at the end of the day ends up being what the LME warehouses are paying to attract metal and the competition from China," said a producer source. "Japan realistically needs to be in the mid-50s as a floor."

The Q2 talks that started a month ago were slow to conclude, as some producers made initial offers to some Japanese buyers two weeks ago at prices of \$60-62. Earlier discussions had focused on reducing purchase quantities for the second quarter from the previous quarter. Some Japanese sources believe that second-quarter contract shipments to Japan may halve from volumes for the same period last year.

The producer source acknowledged that the negotiations were "extended, and for some very low volumes," as settling the price ended up being secondary to negotiating volume.

Japan's aluminum consumption is down by 30% or more from last year, while port stocks have surged to more than 370,000 mt at the end of February. That amount would cover three months of consumption without the need for any imports, based on January consumption of 122,193 mt by the Japanese rolling mills.

"You've got port stocks in Japan at 10-year highs at the end of February, and they're not going to go down in March," the producer said. Producers were willing to be flexible with Q2 volumes because "if it's just going to go into a big pile it doesn't help anyone. If I know it's going to turn up in six months' time, and stocks are going to be 100,000 mt higher, it just makes that quarter that much worse," he said.

But April-June is the peak demand season due to increased beverage can production ahead of summer. If Japanese demand starts to recover in May, and domestic supply runs tight, Japanese companies would be active in the spot market, local sources said. The producer said 2009 contracts were booked at lower volumes with the understanding if business picks up they could be increased. Also, many Asian buyers chose to go quarter to quarter.

Japanese trading houses have settled Q2 contracts at \$57-58/mt CIF, while consumers such as rolling mills and manufacturers mostly settled at \$56-57. "Consumers tended to see the slowdown in Japan only, while traders took into account the Asia-wide market conditions," said one trader, describing the \$1 gap in the settlement levels between traders and consumers.

There was one settlement at \$59 CIF, which was likely for less than 500 mt/month. This was determined to be outside of the Platts specification, which reflects the level where repeatable trades would occur between unrelated counterparties for volumes of more than 500 mt/month.—*Mayumi Watanabe*

## Spectro lays off scrap buyer, cuts aluminum alloy capacity

Washington—Minnesota-based secondary smelter Spectro Alloys has laid off scrap buyer Scott Woods as well as others and has cut back capacity amid weak demand, said a Spectro official.

The official would not disclose the amount of the

curtailment, but Spectro's two furnaces have a capacity of 20 million lb/month of A380, 319 and 356 alloys.

In an email sent from Woods, he cited market conditions and the state of the economy and industry for his layoff. He expressed hope he might return when conditions improve.

However, that hope seems far away as sales in the automotive sector — the main secondary aluminum market — are in steep decline in the US. General Motors reported a 53% slide in February sales year on year; Ford sales fell 48% and Chrysler's 44%. Toyota's February sales dropped 37% from a year earlier. Overall, sales for the US market were down 41% from a year ago to a weak annual pace of 9.12 million vehicles, according to government statistics. That is down from sales of 16 million units in 2007.

Woods previously was a scrap buyer for Arkansas Aluminum Alloys, but Spectro hired him after AAA announced it planned to temporarily shut its smelting operations in Hot Springs, Arkansas, taking out 160 million lb/year of aluminum alloy capacity. Spectro's head of scrap purchasing, Mike Shuneson, remains with the company.

"Our whole industry is operating at below 50% of capacity," said the Spectro official. "We did reduce capacity and let people go. We have been communicating with scrap dealers and customers to help them understand what our current capacity is." He added that Spectro had "not fully rightsized the business yet from before the planning of the merger [with AAA]. We were dragging our feet, hoping the economy would recover faster, but it hasn't. So basically, we put the company at the appropriate level to demand right now, as have most manufacturing companies."

The Spectro official added that Spectro is not the only alloy producer to cut back — others have already completely shut down operations or also cut back temporarily. Other producers have told Platts they are taking furnaces offline amid the weak demand environment. "We all know there's no business out there," said another producer.

Added a broker: "Something has to happen with the automotives. The government has to back the suppliers. The automotives are losing so much money, it has to be resolved pretty quickly."

A possible lifeline came last week from the US Treasury Department, which said it would extend \$5 billion in aid to US auto parts makers which supplied GM and Chrysler.

The broker added that several diecasters "are hanging by a thread, and credit insurers are red lining the whole industry. This really poses a problem for the smelters — they are dying. No one is running more than one furnace. There's just no business out there."

In November, amid an uncertain and challenging economic landscape going forward, Spectro and AAA shocked the secondary alloy market by calling off their proposed merger, just as it was nearly completed. The companies' ultimate goal was to consolidate the US secondary aluminum industry. At the same time AAA announced plans to temporarily shut its smelting operations.

The Platts A380 prices has fallen to 59-61¢/lb, delivered Midwest, as of March 19 from a peak of \$1.30-1.32 in July 2008.—*Tina Petersen*

## Elsewhere in aluminum...

**Court gives final Aleris DIP OK:** The US Bankruptcy Court for the District of Delaware has overruled objections to Aleris' \$1.075 million debtor-in-possession credit facility and has granted its final approval, according to court documents released March 18. Objections to the DIP financing were filed to the court by Goldman Sachs arm J. Aron & Co. and by Aleris' parent company, Texas Pacific Group. Both lenders objected to the DIP facility on grounds that their secured repayment would lose priority status. In spite of this, the court opted to finalize the DIP credit facility for the US-based aluminum sheet maker/recycler.

**Alpart to shut for a year:** Alumina Partners of Jamaica said it plans temporarily shut down production for at least 12 months, beginning May 15, due to the unprecedented fall in global aluminium markets and corresponding drop in alumina demand. Alpart said around 900 permanent employees would be laid off as a result of the temporary shutdown. Alpart is owned indirectly 65% by UC Rusal of Russia and 35% by Norsk Hydro of Norway, and has an alumina production capacity of around 1.65 million mt/year. Alpart had already reduced output by 50% in January.

**S&P lowers Norsk Hydro view:** Standard & Poor's Ratings Services on March 20 lowered to "BBB-" from "BBB" its long-term corporate credit rating on Norwegian aluminum producer Norsk Hydro. At the same time, the short-term corporate credit rating was lowered to "A-3" from "A-2." S&P attributed the downgrade to the sharp downturn in the aluminum sector. The ratings were removed from CreditWatch with negative implications, where they had been placed on January 20. S&P cited Hydro's ratio of funds from operations to adjusted debt of 35%. S&P said it expected Hydro to report very weak profitability and cash flow generation in 2009 and that its capital spending planned for 2009 would weaken credit metrics.

**Japanese smelters may export to China:** Japanese secondary aluminum alloy smelters are seeking to export alloys to China, as Chinese spot domestic prices remain higher than Japanese prices, local industry sources said last week. Two aluminum smelter sources said they had studied the possibility, suffering from poor sales at home and attracted by the higher Chinese prices. Chinese spot domestic ADC12 aluminium alloy prices were still around Yuan 12,300-13,000/mt ex-plant (\$1,800-1,903) last week, according to Platts assessments, while Japanese spot

ADC12 prices were reported around Yen 130/kg (\$1,350) ex-plant. No exports had yet taken place, a smelter source said. One interested Chinese buyer had bid at \$1,000/mt on CFR basis, said one source. But the price was “far below our production costs,” he said. Chinese ADC12 exports to Japan are also minimal and set to fall given the stronger US dollar. Japanese aluminum smelters have been operating at less than 50% rates since January. Aluminum alloy output cuts, however, do not appear to be catching up with the demand slowdown, and Japan still has excess stocks, market sources said.

### Service center shipments plunge 45%:

Aluminum shipments from US metals service centers plunged more than 45% from year-ago levels, while Canadian aluminum shipments were down 26.8%, according to the *Metals Activity Report* for February from the Metals Service Center Institute. Aluminum product shipments from US metals service centers totaled 83,200 mt in February, down 45.9% from a year ago, the report said. Shipments for the first two months of 2009 at 174,200 mt of aluminum were down 44.6% from last year. Aluminum inventories at the end of February totaled 347,900 mt, a decline of 24.2% from 2008 and equal to a 4.2-month supply at current shipping rates, the report said. Canadian aluminum shipments in February at 10,600 mt were down 26.8% from year-ago levels. In the first two months of 2009, shipments fell to 21,800 mt of aluminum, down 24.4% from last year’s shipments.

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## LIGHT METALS

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### Compass buys Citation units, looks for more: CEO

Washington—Amid government bailouts and talk of bankruptcy, Compass Automotive Group is banking on a turnaround in the embattled automotive sector, enough that it last week acquired its second asset in the automotive sector — the high-pressure diecasting and machining units of Citation Corp. — and says it is looking to buy more.

“Our primary focus right now is automotive,” Compass CEO Jim Squatrito told Platts in an interview March 20. “We’re very aggressive in that area. We made this acquisition, and honestly, we’re looking for others in the same space.”

Compass will absorb the Citation business, located in Grand Rapids and Lowell, Michigan, into its current diecast operations. Compass — which is the corporate parent of Casting Technologies, Magnesium Aluminum Corp. and SRC — is a supplier to car makers and Tier 1 automotive suppliers that is part of the portfolio of companies owned by Monomoy Capital Partners.

It operates a broad automotive platform that manufactures aluminum and magnesium automotive components utilizing high-pressure diecasting, squeeze casting and a proprietary VRC/PRC casting process.

Compass began its advance into the high-pressure diecasting niche in 2007, with its purchase of Cleveland-based Magnesium Aluminum, and Squatrito said the Citation spin-off expands that niche and adds another.

“From the beginning, we have built Compass piece by piece, and this piece that we’ve added now really strengthens our position in the high-pressure diecasting arena ... and it gives us machining capability as well,” he said. Squatrito said Compass would integrate the new units into its structure, adding that they would continue as stand-alone facilities.

Squatrito said the acquisition — the financial terms of which he wouldn’t disclose — more than doubles Compass’s high-pressure diecasting capacity, and although the automotive industry is currently staggering at about half its normal output, Compass has no plans to scale back any of its new capacity for the time being.

“Actually we want to build it up,” he said. While Squatrito said the company has not ruled out consolidating the new businesses at some point in the future, for now, “What we just bought is under-utilized and we want to fill it up. Part of that is being good at what we do and winning business in the marketplace, and part of it is, if other opportunities come along, acquiring [companies] or if someone is going out of business, pick up business.”

And the fact that so many potential targets in the automotive sector are currently floundering is not a deterrent to that strategy, Squatrito told Platts. “The businesses we go after are businesses that are troubled either financially, operationally, strategically and so forth,” he said. “So those types of businesses that exist in troubled spaces fit our niche. We take those and turn them around and restructure them and get them to stand back on their feet again.”

Compass’ principal customers include Asian, European and North American OEMs, as well as major Tier 1 suppliers, in the car, light truck and motorcycle sectors. It said it supplies nearly every automaker in North America.

Casting Technologies is a diecaster making premium-grade aluminum suspension components, cross-members and compressor scrolls; Magnesium Aluminum is a diecaster of aluminum and magnesium steering wheels, steering components and airbag enclosures; and SRC is the leading North American manufacturer of magnesium flux, a refining agent used in the production of industrial aluminum and magnesium.

Compass employs more than 600 in Detroit and Fruitport, Michigan; Franklin, Indiana; Cleveland, Ohio; and Matamoros and Chihuahua, Mexico. Citation is a full-service supplier of components to the transportation and industrial industries.

For its part, Monomoy sees the Citation acquisition as

“an important further step in building a strong Monomoy platform in the safety critical automotive components manufacturing space,” said Justin Hillenbrand, a Monomoy partner, in the statement announcing the deal.

“The Grand Rapids and Lowell facilities are valuable assets that will strengthen Compass in the short term and position the company to grow as the economy stabilizes,” he said. “Compass remains a financially stable business in a very difficult industry, and Monomoy continues to review a compelling set of acquisition opportunities in the automotive supply chain that can add value and breadth to the Compass business platform.”

Compass Automotive Group was formed in July 2007 by Monomoy Capital Partners, which is a \$280 million private equity fund that has completed 21 deals in the last 36 months.—*Laura Gilcrest*

### Elsewhere in light metals...

**Toho to cut titanium output 40%:** Japan's Toho Titanium plans to cut titanium sponge production by 40% to 720 mt/month from April due to the slowdown in aircraft demand, the company said last week. The company is running its 1,200 mt/month Chigasaki sponge plant at an 85% rate currently, and the cutback will be expanded due to decreasing aircraft demand, partly due to delays in the new Boeing 787 project. In addition, the company had planned to bring on stream a new 1,000 mt/month Wakayama sponge plant in December, but will delay it to April 2010.

**Timminco's magnesium sales rise:** Former magnesium producer Timminco, which remains a silicon producer, reported a net loss of \$1.3 billion for the fourth quarter of 2008 compared with a net loss of \$8.84 billion for Q4 2007 but saw magnesium sales rise in Q4. The loss included updated charges related to reorganization, environmental remediation and capital asset impairments. Timminco's net loss for 2008 was \$22.6 million, up from a net loss of \$18.0 million in 2007, largely due to the closure of its Haley, Ontario, primary magnesium smelter. Sales for the Magnesium Group for the fourth quarter of 2008 were \$14.2 million, an increase of 17% from \$12.1 million for the fourth quarter of 2007. The increase was attributed to price increases across most product lines in response to higher magnesium metal costs, which were partially offset by lower sales volumes due to the weak US economy. Sales for 2008 were \$63.1 million compared with \$62.4 million for 2007. As previously reported, Timminco has undertaken the next phase of its divestiture of the Magnesium Group by signing a non-binding letter of intent to merge its principal components with Winca Tech, a China-based producer of magnesium products, and beginning the orderly wind-down of operations at the company's extrusion facility in Aurora, Colorado.

## TIN

**Indonesia's tin cap uncertain:** Indonesia may shelve plans to set its tin quota at 105,000 mt in 2009 on the back of slowing demand, yet tin production is estimated to come in lower than the target figure, a senior official said last week. “We will evaluate further; we will see the situation. If production is lower than the quota figure, it is no longer necessary to set a quota,” said the mineral, coal and geothermal director general at the Energy and Mines Ministry, Bambang Setiawan. He added that a quota was only necessary to stabilize the tin price if production were overflowing, but did not mention how much tin Indonesia is expected to produce in 2009. Some of Indonesia's smaller smelters on Bangka-Belitung island have been slowing production, with many of them idled. The government had set a tin production quota of 105,000 mt this year, a 47% increase compared with the realized tin output last year of 71,610 mt. But the output target this year could be revised in Q2, dependent on realized output and the price in Q1, said Bambang Gatot, mineral and coal director. Roughly 90,000 mt of the 105,000 mt estimated output is expected to come from the island of Bangka Belitung which houses many smelters, including Koba Tin and state-owned tin company PT Timah, while the remainder is set to come from the Riau islands, Gatot said. Indonesia has a tin reserve of 338,115 mt. The country's tin exports rose 35% in February to 8,534 mt compared with 6,337 mt a month earlier.

**China's February tin output off 44%:** China's February refined tin production fell by 44% year on year to 4,530 mt, ITRI reported last week, quoting preliminary base metals production figures released by China's National Bureau of Statistics. ITRI, a not-for-profit membership-based organization representing the tin industry, is sponsored and supported by its members, principally miners and smelters. ITRI was formerly known as the International Tin Research Institute. China's cumulative production over January-February was only 9,645 mt, 43% lower than in the first two months of 2008. The bureau said that this was a very big drop, considering that in the early months of last year production was disrupted by severe winter weather.

**Bolivia's major tin mine growing:** Bolivia's state-owned mining firm Empresa Minera Huanuni is moving forward with the expansion of the country's largest tin mine despite the sharp fall in metals prices over the past couple of months, the company's manager said last week. The project involves installation of a mill to nearly triple throughput to 1,500 mt/day by end of March. The Huanuni mine produces approximately 8,000 mt/year of tin concentrate, which is processed at the state-owned Vinto smelter.

## COPPER

### Traders, analysts skeptical of SRB buying spree

Washington—The recent surge in copper buying by Chinese traders, consumers and government agencies is unlikely to continue if prices continue to rise, analysts and traders said last week.

China's State Reserve Bureau is believed to have bought nearly 300,000 mt of cathode in recent weeks for stockpiling purposes when prices on the Shanghai Futures Exchange exceeded those on the London Metal Exchange.

Since hitting their peak at 548,400 mt on February 25, LME copper stocks have declined 44,450 mt to 503,490 mt on March 20. Canceled warrants, after rising to a peak of 64,400 on March 4, have plummeted 39,875 to 24,525 on March 20.

But Chinese buyers are known to be price sensitive, not only in buying cathode, but also scrap, and are unlikely to continue if prices continue upward.

"While it is impossible to be definitive about the SRB's behavior, we find it difficult to believe that the SRB is going to simply buy copper regardless of price — its actions to date certainly do not imply that this is the case," analysts at Australia's Macquarie Bank said this week in a report.

"However, we do believe that the SRB has the appetite to buy much more copper yet, and are comfortable viewing the SRB as a supportive factor for copper, which should prevent prices dropping significantly below \$3,000/mt (\$1.36/lb)," Macquarie analysts said.

Most of the 300,000 mt purchased by the SRB has probably already been booked, Macquarie analysts added, and delivery of the material is likely to be completed by mid-year. At that point, the SRB is likely to withdraw from the market until prices again move lower.

Reports from the physical market suggest that its target price to buy is below \$3,000/mt (\$1.36/lb). "We believe that this makes sense as it would be roughly in line with where prices were trading when we believe the SRB bought copper back in December," Macquarie said.

Some analysts believe the SRB has a mandate to buy another two or three tranches of 300,000 mt. If that occurred, China would consume most if not all the surplus Macquarie and other banks and research groups have forecast, thereby keeping the market relatively tight.

"However, we are not convinced that this is a likely scenario," Macquarie said. "The behavior of the SRB so far suggests to us that it is price sensitive — after all, it did not come in to buy copper until December of last year, when prices plummeted below \$1.40/lb (around \$3,100/mt)."

Even now, some local trade sources in China are cautious about the current demand picture. One Shanghai-

based trader said: "Recent stronger prices are supported by [falling] stockpiles in London and market speculation over the State Reserves Bureau's purchases of copper. The recent price rally doesn't truly reflect a pickup in copper demand in China."

The trader added that the recent price rise was likely to be short-lived. "It will be crucial to see if Chinese copper imports pick up in March or April as this is a better indicator to reflect the copper demand situation in China," he said.

Calyon analyst Robin Bhar in a report earlier this month said that given the continued deterioration in the macroeconomic environment, copper's resilience was rather surprising. He said prices were not falling as widely expected because Chinese buying had come to the rescue of the copper market.

"But we question its sustainability," Bhar said, adding that copper is a strategic metal in China and the SRB is buying to replenish its stocks. The SRB will take a long-term view and will not chase prices higher, he said.

"Copper prices are rebounding strongly and could yet challenge the \$4,000-4,500/mt area, but the rally is not sustainable," Bhar said. "Chinese restocking is masking weak underlying global copper consumption growth and a market in growing oversupply."

A favorable LME/Shanghai futures Exchange arbitrage as well as an extremely tight scrap market in China saw a flood of copper heading to Asia this month.

Other analysts voiced similar concerns last week about SRB price sensitivity, as well as the notion of increased cathode buying to cover a contraction in scrap supplies. Analysts from UK investment bank Barclays said the global scrap market could be in deficit by 600,000 mt this year.

"Little is known about the opaque copper scrap industry; the margin of error around how much shortages could boost copper demand by is very wide," Barclays analysts said.

Even greater uncertainty surrounds how much more copper the SRB will buy. "We suspect that some of the bigger estimates [1 million mt] are very wide of the mark and fail to take account of the SRB's price targets," Barclays analysts said.

"We expect copper prices to firm heading into Q2 when we forecast an average of \$4,200/mt for the LME cash price. But with so much uncertainty surrounding the good news that has been priced in, the recovery still looks fragile and could give way to high levels of volatility before long," Barclays said.—*Nick Jonson, with Wendy Shair in Hong Kong*

#### Elsewhere in copper...

**Chile's exports fall 7.4%:** Chile exported 475,300 mt of copper in January, down 7.4% from 513,400 mt in the same month of 2008, according to figures released by the Chilean Copper Commission. Figures in Cochilco's monthly mining bulletin showed exports of refined cathode rose to

255,550 mt, up 3.9% from 246,000 mt twelve months earlier, while exports of copper in concentrates fell to 175,400 mt, down 14.6% from 205,400 mt. Exports of copper blister fell to 44,300 mt, down 28.5% from 62,000 mt. Much of the drop in exports was explained by a 38% drop in shipments by BHP Billiton-controlled Escondida to 93,600 mt, while Xstrata Copper saw exports fall 65.2% to 8,000 mt and Los Pelambres down 9.3% to 26,300 mt. These were partly offset by a 15% rise in exports from state-owned Codelco, the world's largest copper producer, to 177,400 mt and a 21.9% increase by Minera Collahuasi to 42,800 mt. The main markets for refined Chilean copper were China (75,500 mt), the US (51,000 mt), Italy (26,000 mt), South Korea (24,700 mt), Taiwan (18,900 mt), The Netherlands (14,000 mt) and France (11,900 mt). Concentrate was shipped to Japan (71,200 mt), China (34,600 mt), India (15,600 mt), South Korea (10,000 mt), Germany (15,300 mt) and Brazil (10,800 mt). Chile, the world's largest copper producer, exported 5.4 million mt of the metal last year.

**Market records greater surplus—WBMS:** The global copper market recorded a surplus of 151,000 mt in January 2009 compared with a deficit of 4,400 mt in January 2008, the UK-based World Bureau of Metal Statistics said in a report last week. Reported stocks increased over the month by 158,000 mt. No allowance was made for unreported stock changes when calculating consumption totals, and some of the planned capacity reductions have not yet affected world output, WBMS noted. Mine production in January was at 1.303 million mt, which was 7.8% higher than in the same month in 2008. Refined production rose by 4.4% to 1.55 million mt. Chinese output rose by 12,400 mt. Bulgarian, Zambian and Chilean output was jointly 73,000 mt higher than the previous year, but output in India and Japan fell by 8,000 mt and 20,000 mt, respectively, the WBMS said. Global consumption in January 2009 was 1.402 million mt, which was 6% lower than the same period of the previous year. Chinese consumption rose to 465,100 mt from 394,000 mt in the previous year. The calculated apparent demand data excludes any changes in government stockpiles or any other unreported stocks. EU-27 demand was, at 255,200 mt, 15.2% below the January 2008 total. In January to December 2008, refined copper production was 18,483,600 mt and consumption was 18,024,100 mt, according to WBMS estimates.

**Mine capacity to grow 5%/year — ICSG:** Based on new information and announced project developments, annual copper mine production capacity over the 2009 to 2012 period will grow at an average rate of 5%/year to reach 22.8 million mt in 2012, an increase of about 4 million mt (21%) from that in 2008, the International Copper Study Group said last week. Of the total increase, copper-in-concentrate capacity is expected to rise by 2.4

million mt (3.8%/year) and SX-EW production by 1.6 million mt (9%/year). South America and Africa will account for around 2.5 million mt (62%) of the mine capacity increase during this period, the ICSG said. Annual smelter capacity is projected to grow by an average of 2.2%/year — about 1.6%/year lower than the projected growth in concentrate capacity — to reach 19.1 million mt in 2012, an increase of 1.6 million mt (9%) from that in 2008. Mainly because of several project expansions and startups in China, the smelter growth rate in 2009-2010 averages 2.7%/year and is projected to match the concentrate growth rate over the same period (2.6%), according to the ICSG. The situation will change in 2011-2012 when significant new concentrate capacity is foreseen to come on stream. Assuming that smelter capacity utilization rates rise from the current low level, capacity over the forecast period should be sufficient to treat additional concentrate production, the ICSG said.

**Chilean exports fall 58%:** The value of Chile's copper exports fell 58% to \$1.277 billion in February, down from \$3.059 billion in the same month of last year, the country's central bank said last week. The drop reflects the sharp fall in world copper prices, which plummeted from almost \$4/lb in the middle of last year to average \$1.50/lb during February, and lower output due to technical problems at some major mines.

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## PRECIOUS METALS

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### Gold price makes sharp U-turn as Fed injects liquidity

*New York*—The gold market received a jolt late last week that brought an abrupt end to the downward spiral; gold made a U-turn and ratcheted upward in all markets. A combination of short covering and fresh speculative buying led to price gains of almost \$100 within 24 hours.

The rally started in earnest in the after-market on March 18, after the COMEX spot March gold contract had plunged to a settlement price of \$888.70/oz from \$916.40/oz the previous day. The rally continued overnight in Asia, then in Europe, where spot bullion soared to \$937.25/oz at the AM Fix on March 18 from the previous days's PM Fix of \$893.25/oz. Spot gold then soared to \$956.60/oz at the PM Fix and set the stage for a rally on the COMEX.

The COMEX spot month gold contract gained \$69.60 on March 19 over the previous day's close to reach a settlement price of \$958.30/oz. The more active April contract, which recorded a hefty trading volume of 177,880, rose by \$69.70 to \$958.80/oz.

The trigger for the rebound in gold prices was an announcement on March 18 by Federal Reserve Chairman Ben Bernanke that the Fed would buy up to \$1 trillion in

government bonds and mortgage-backed securities guaranteed by Fannie Mae and Freddie Mac to power the economy out of the recession.

The reaction was dramatic. Stock prices rose, interest rates fell, the dollar plunged to its lowest level against the euro since the creation of that European currency and gold prices soared.

According to one market analyst, the Fed's move could lead to spiraling inflation rates by the creation of about \$1 trillion on top of the billions already floating around in the form of government stimulus.

Renowned analysts Pamela and Mary Anne Aden, commenting in their market update on the reaction to the Fed's move, said: "The Federal Reserve shocked the markets by taking new dramatic actions to end the recession .... Overall, this looks like the trigger that'll drive the rebound rises we've been anticipating, in the oversold markets...."

The Aden Sisters continued: "If there was ever a doubt that gold's bull market is forming an eight-year low, it's gone now. The Fed's action guarantees that gold has much further to rise in the year ahead .... Gold will stay firm above \$880/oz. Keep in mind, gold has been much stronger than most markets over the last several months, which means the other markets are poised to outperform gold for the time being."

Other analysts have expressed similar sentiments about the likelihood of gold prices rising to new heights, perhaps later this year, due to investor anxiety about the prospects of rising inflation rates and weakness of the dollar against other major currencies.—*Ovid Abrams*

## Recycled gold plays havoc with the world's leading markets

*New Delhi*—A substantial decline in domestic currency values led to soaring gold prices in India — even while the metal's dollar prices were falling — and a sharp decline in imports because people have been selling gold jewelry for recycling.

"The [gold] import [total] is almost zero thus far in March; there is no demand for imported gold," said Suresh Hundia, the president of the Bombay Bullion Association, a group of leading Mumbai bullion traders.

Imports are unlikely in the remaining days of March, as the peak wedding season is over and the beginning of nine-day "Navratras" is scheduled from late March, when orthodox Hindus avoid purchases. India's gold imports were almost nil in February as well and totaled less than 2 mt in January.

A year earlier, gold imports in January, February and March were 18 mt, 23 mt and 21 mt, respectively. If high prices have dampened demand for gold, then the flow of old jewelry — fueled by record-level domestic gold prices — virtually throttled demand for imported gold, Hundia said.

Recycled gold is cheaper and meeting the domestic demand, said a senior official at a trade firm. Gold imports into India have fallen steadily in the past year, with imports in 2008 estimated around 400 mt, compared with around 600 mt imported a year earlier.

The decline in imports that began in late 2007 has continued through 2008 and the trend is expected to continue unless global gold prices fall. The century-old tradition of buying gold jewelry during wedding and festival times has led to an estimated buildup of more than 13,000 mt of gold reserves in the form of jewelry in Indian homes.

### Turkey becomes a significant net exporter of gold

The situation with recycling has been similar in Turkey, with the Turks selling their gold jewelry in record quantities because of record-level prices in the domestic currency and also because of the country's economic problems, according to GFMS' March 2009 quarterly newsletter.

The value of the Turkish lira has declined against the dollar; thus, although dollar gold prices have been declining, they remain high when denominated in Turkish lira.

"We have therefore seen record Turkish gold prices not only in 2008 but also during early 2009," said GFMS. "Speaking to our contacts, in spite of the rise in scrap supply, it became clear that the Turkish public were no less positive toward the yellow metal than they had been when the country's gold consumption had risen strongly."

GFMS noted that Turks typically purchase 22-carat gold jewelry as a safe-haven asset. But as the economy started to weaken toward the end of last year, consumers took the opportunity to raise funds by selling back a portion of their jewelry to local retail outlets.

"But even as they were doing so, the feedback we received from those companies with a presence in the retail trade, was that many individuals expected to eventually reacquire 22-carat pieces as the economy improved," GFMS noted. "In Istanbul, it quickly became clear the extent to which the supply chain had mobilized to manage this flow. Although recycled jewelry was becoming increasingly available across the country, it was typical for 22-carat bars, in a variety of sizes, to be delivered into Istanbul, simply because the city was the home to the bulk of the country's refining capacity."

GFMS continued: "However, the extent to which scrap had increased, within such a short period of time, presented a number of challenges, not least the ability to finance this trade, at a time of record local gold prices. In addition, there was the question concerning the final market for the newly refined kilo bars. Not only had Turkish jewelry and coin demand collapsed, but the lack of an LBMA-accredited product, that could be produced in Turkey, often meant that re-refining overseas was required. As a result, much of the trade switched from buying and distributing imported bars to exporting gold. —*Shiva Lingham, with Ovid Abrams in New York*

## South African gold companies face labor battle

*Johannesburg*—South African gold mining companies' balance sheets are at risk in this year's wage negotiations involving 160,000 workers, according to sources last week.

The wage talks between the unions and the Chamber of Mines, held every two years, are expected to start next month with negotiators admitting that a high settlement is likely. The National Union of Mineworkers, the country's strongest union, is expected to ask for more than a 20% increase in wages, plus a long list of demands.

Frans Baleni, the general secretary of the NUM, confirmed the union would submit its wage demand to the COM in the last week of March, but refused to give a figure. Negotiators at the COM said the employers would need two to three weeks to sift through the demands, which would mean the talks were likely to begin in the last week in April.

Elize Strydom, the chief negotiator for the employers, said: "We are bracing ourselves for a very high demand and we are going to have to work very hard to bring some sense of reality to the talks."

Strydom said she also felt the NUM, which settled for a 10% increase in gold worker wages in 2007, 2% less than for coal workers, was likely to play "catch up" in this year's negotiations. She also said rising inflation and food prices were likely to push up the wage demand.

Lesiba Seshoka, the national spokesman for the NUM, said the union was going to focus on raising the wages of those lowest paid in the gold mines. He said the minimum wage in the gold mines was Rand 3,500/month (\$352).

"The employers are likely to come at us with how bad the economic situation is. All we can say is that the situation of our members is even worse," he said.

The COM will represent Gold Fields, Harmony, Anglo Gold Ashanti and newcomer Rand Uranium, which employs 5,000 gold miners at its Cook Mine operation.

This year, South Africa slipped to third place, behind China and the US in the world gold output.—*Chris Bishop*

### Elsewhere in precious metals...

**Price adjustments:** *Platts* has made the following adjustments to its NY dealer PGM prices: **platinum**, \$1,040-1,120/oz; **palladium**, \$190-204/oz and **rhodium**, \$1,025-1,150/oz.

**Stillwater posts 2008 loss:** Stillwater Mining last week posted a net loss of \$113 million for 2008, compared with a loss of \$15.5 million for 2007. The results were also hit by impairment charges and inventory writedowns, the company added. Revenue for the year totaled \$855 million, down 27% from \$673 million in 2007. Stillwater Chairman

and CEO Francis McAllister described the results as "truly disappointing," especially considering the company's comparatively strong performance earlier in the year. Stillwater expects to produce 495,000 oz of platinum in 2009, at a cost of \$399/oz. Capital expenditure for 2009 is budgeted at \$39 million, down from \$82 million in 2008.

**Silver price could spike above \$14/oz:** Silver prices could rally above \$14/oz in response to investor demand, then fall sharply on profit-taking and technical-based selling, said the latest *Precious Metals Advisory* by the New York-based CPM Group. "On the downside, there is support for prices around \$12/oz," the report noted. "As the global economic recession deepened and financial markets further deteriorated, investors around the world have continued to buy enormous amounts of silver. Investors are buying physical silver, futures and exposure to physical silver through exchange-traded silver funds," said CPM. "Combined, silver ETF holdings rose around 8.2% during February. Combined holdings stood at 369.7 million oz as of February 28, up 28 million oz from 341.7 million oz held on January 31. On February 26, combined silver holdings reached a record 372.3 million oz, before declining slightly." According to CPM's estimates, mine production of silver rose to 548.4 million oz in 2008 from 534.4 million oz mined in 2007. Peru remained the world's largest silver producer in 2008, with output of 118.5 million oz — up 5.5% from 112.3 million oz in 2007.

**S&P rates Gold Fields BBB-/A-3:** Standard and Poor's Ratings Services assigned Gold Fields a 'BBB-/A-3' long-term and short-term global corporate credit rating and 'zaA/zaA-1' long-term and short-term South Africa national scale corporate credit rating. The outlook is stable. The long-term ratings reflect Gold Fields' satisfactory business risk and intermediate financial risk profiles, while the short-term ratings reflect Gold Fields' adequate liquidity. The satisfactory business risk profile reflects Gold Fields' market position as the world's fourth-largest gold producer, with an industry-leading long reserve life of over 20 years and healthy profitability underpinned by persistently strong gold prices. The company's leverage and financial policy is considered to be moderate, said S&P, like *Platts*, part of The McGraw-Hill Companies. The stable outlook reflects the expectation that Gold Fields will continue to report healthy cash flow generation.

**Mineral Deposits pours gold in Senegal:** Australia's Mineral Deposits said March 19 production has begun at its Sabodala gold mine in Senegal, with the pouring of the first gold dore bars. The firm said the commissioning phase has been smooth and the plant will soon begin processing the 1 million mt of ore stockpiled at the facility, which is estimated to contain in excess of 80,000 oz of gold. The plant is currently operating at a processing rate in

excess of 2 million mt/year and the miner hopes to produce 160,000 oz of the metal by the end of 2009. Mineral Deposits is a pioneer in the Australian mineral sands industry and has moved into gold production to diversify its business. Sabodala is its first operating gold mine.

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## MINOR METALS

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### Chinese seek to import indium

... from page 1

purchase indium for the country's stockpile, sources said. There are few signs that metal consumption is picking up in China, however.

Similarly, Japanese exports of zinc, copper, lead and aluminum into China have surged due to the SRB stockpiling expectations. Japanese smelters have nearly sold out their April shipments thanks to the robust Chinese demand.

Japan is exporting other metals to China, due to better demand conditions there compared with Japan, which has been badly hit by the slump in the automotive sector. The Chinese government has not yet expressed interest in stockpiling scrap and secondary alloy supplies.

Sources said that various scrap metal supplies — ferrous, aluminum and stainless scrap — are being shipped into China, due to market conditions being better in China than in Japan.

Recent exports are said to include a few hundred metric tons of ADC12 secondary aluminum alloys for automotive engine components. Japanese domestic ADC12 prices have sunk as low as Yen 130/kg ex-plant (\$1,350)/kg, while Chinese domestic prices are holding steady around Yuan 12,300-13,000/mt ex-plant (\$1,800-1,903).

Industry sources said that China is interested in stockpiling metals, with the exception of magnesium and rare earths.—*Mayumi Watanabe*

#### Elsewhere in minor metals...

**Rhenium prices fall to \$7,200-7,500/kg:** The market for rhenium, the highly specialized metal which looked formidable even in the wake of global recession just a few weeks ago, has begun to crack at the seams, trade sources told Platts. Demand for some applications has dwindled and prices are coming down. "There is no business going on in rhenium right now; I'm even trying to remember what rhenium is," one New York trader quipped. "It's hard for me to give a quote because I've not done any business in weeks." Another trader noted that he had heard that the Chinese were offering material at \$6,800-7,200/kg, but he had not done any deals in that range; in fact, he had done no business in months. One of the world's leading suppliers

of the metal told Platts that he had managed to secure a fairly large order, however. "We did about quarter of a ton business in catalyst-grade rhenium this week at around \$7,500/kg," said the trader, noting that the current range for most business is \$7,200-7,500/kg. While the petroleum industry has continued in relative prosperity — and largely maintains normal demand levels for rhenium-based catalysts — makers of super alloys have been pretty much running on empty. "We've not had any orders for rhenium alloys in a long time because nobody is buying new planes right now; the aerospace industry is in tatters," said an alloy maker.

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## LEAD & ZINC

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### Chinese, others target 2009 zinc TCs of \$194-200/mt

*Hong Kong*—Major Chinese zinc producer Shenzhen Zhongjin Lingnan Nonfemet is seeking 2009 term zinc treatment charges in the \$194-200/mt range, the producer based in Guangdong Province said last week. TCs are the fees paid to Chinese smelters by overseas mines for converting zinc concentrate into refined zinc.

"Teck Cominco and Korea Zinc have settled 2009 zinc TCs at \$194/mt, and we are seeking our 2009 term TCs at similar levels," one Zhongjin Lingnan official said. "We are still in the process of term TC negotiations with overseas mines," he said.

In Sichuan Province, an official with key Chinese zinc producer Hongda Group said since Zhongjin Lingnan is a large-scale state-owned zinc smelter with its own zinc mines, "it is in a much stronger bargaining position compared with other Chinese smelters in term TC negotiations." According to the Zhongjin Lingnan official, Zhongjin Lingnan currently has zinc/lead resources of 6.62 million mt.

The Hongda source said that Chinese zinc smelters usually settle annual zinc TCs at levels lower than their overseas counterparts "as overseas smelters are more united in negotiations, while Chinese zinc smelters are more independent, and thus are at a disadvantageous position in bargaining with mines."

The source added, "Despite anticipated lower term zinc TCs this year, compared with about \$250-300/mt settled in 2008, Chinese zinc plants with zinc recovery rates exceeding 90% can still be profitable if term TCs can reach around the \$200/mt level this year." Hongda has a zinc recovery rate reaching 94-95%, much higher than Chinese zinc smelters in general, which tend to have zinc recovery rates of 80-85%.

In 2008, Hongda imported 30,000 mt of zinc concentrate. "Our zinc concentrate import volume this year will depend on future TCs movements," the Hongda source

said. "We are still negotiating with overseas [sources] regarding 2009 TCs."

The benchmark TC for 2009 agreed by global zinc giants Teck Cominco and Korea Zinc settled at \$194/mt on a basis price of \$1,250/mt — with de-escalators and escalators of 10¢, Platts reported in late February. The settlement represents a decline from 2008 TCs of around \$330/mt on a basis price of \$2,500/mt.

### Nyrstar to close major deal by end of March

European zinc smelting giant Nyrstar could close a treatment charge deal with mining majors OZ Minerals and/or Teck Cominco by the end of this month, a Nyrstar official told Platts last week. Although the company had set a rough end-of-April timetable to finalize its 2009 TCs with the major zinc producers, Nyrstar spokesman Craig Chapman said a deal could be in place by the end of March.

"It'll be with OZ or Teck Cominco," he said. "We'll concentrate on the main [companies] and hopefully, the others will follow suit from there." Talks with OZ were a major factor in last year's TC negotiations being protracted into August, he said.

Chapman added that the company would likely settle on a lower basis price than the \$1,250/mt zinc price negotiated by zinc smelter Korea Zinc and Teck, a deal that Platts reported during the American Zinc Association meeting in California in late February.

"There is some talk about [the basis being] a bit lower than that," Chapman said, possibly as low as \$1,100. Nyrstar's contracts will probably also involve escalators in the range of 12-15¢, he added. "If you have a lower basis price, there might be a 12-15¢ escalator, so it could come up to the ... Korea Zinc level, the \$1,250 level," he said, "You set the basis price at a level where you think you can benefit from the escalator."

But even with such variables, Nyrstar's TCs will be set "quite close" to the \$194/mt mark in the Korea Zinc/Teck deal, Chapman told Platts earlier this month. With that agreement setting the 2009 global TC benchmark, "people are looking now to see what Nyrstar's going to do," he said.

British market analysts Macquarie Research Commodities reported last week that "major European zinc smelters" have settled 2009 treatment charges at "just below" \$200/mt for a substantial chunk of zinc concentrates supplied under contract. "We believe the base TC has been agreed just below \$200/mt," the analysts said, with a basis price of \$1,250/mt and escalators of 12-13% if the LME price of zinc falls below \$1,250/mt and de-escalators of 12% if the price goes above \$1,250/mt.

A European trade source had heard that some major players had settled in Europe but not Boliden, and said: "I don't think Teck has agreed with the Europeans" yet either.—*Joshua Leung, with Laura Gilcrest in Washington and Michelle Madsen in London*

### Elsewhere in lead & zinc...

**CLARIFICATION:** In a story on Japanese batteries (MW, March 9, page 9), the statement that Japan's nickel hydride battery market would outgrow the lead battery market by 2014 referred only to those market segments as contained in the hybrid vehicle market, not the automotive market at large. The nickel hydride battery market is projected to grow to Yen 207.8 billion, up 230% from 2008, while lead battery usage in hybrid vehicles is seen remaining flat at Yen 163.2 billion. This does not include lead battery usage in traditional gasoline-powered vehicles.

**Zinc deficit this year?** While zinc has started off this year in surplus, the base metal will bounce back to a deficit — albeit a small one — in the second half of the year, analysts from Britain-based GFMS Metals predicted last week. At roughly the same time, zinc prices will rebound to an average of \$1,200/mt by the third quarter and an average \$1,300/mt by the final quarter, GFMS predicted. The GFMS report sounded an optimistic note for the base metal this year, based largely on the fact that the sweeping zinc production cutbacks — expected to take a 4.3% bite out of global output this year — are beginning to pay off. "There are some positive signs emerging, particularly from the supply side, that suggest that the worst is behind the market from a fundamental standpoint," the analysts said. GFMS predicted a full-year 2009 average zinc price of \$1,150/mt, adding that, if prices went below \$1,100/mt, the drop would "likely trigger a further supply response." For 2009's first half, the zinc surplus will total 210,000 mt, GFMS forecast, adding that the metal's average price would continue inching upward into 2010 to an average \$1,550/mt, with spot prices from \$1,100/mt to \$1,800/mt.

**China's lead smelters source at home:** Key Chinese lead smelters plan to source more lead concentrate locally in 2009 on lower overseas treatment charges, or TCs, industry sources said last week. Lead TCs have fallen to \$50-60/mt in March from \$80-100/mt in January. In Henan province, an official with Yubei Metal Smelter said, "In 2008, we imported 200,000 mt of lead concentrate. But we plan to purchase more material from within China in 2009 on lower TCs." In Henan Province, Lingbao Xinling Lead Industry Co., with a capacity to produce 100,000 mt/year of refined lead, said it sourced about 50% of its lead concentrate from within China in 2008. "Despite only Yuan 3,000-3,500/mt [\$439-512/mt] currently paid as TCs by domestic Chinese mines, it is still higher than the \$50-60/mt paid by overseas mines, so we expect to source more of our lead concentrate from within China this year," a Xinling source said. Chinese smelters have always gotten higher TCs from domestic mines, but a tight Chinese concentrate supply due to mine shutdowns has made them seek more from overseas in the last couple of years. Also, Chinese mines can pay higher TCs

as domestic refined lead prices are higher than world prices. Chinese lead concentrate prices have averaged Yuan 7,800-8,200/mt in March, up from Yuan 6,900-7,300/mt in February.

### **Arcadian sells stake to Golden River:**

Canadian zinc-lead producer Acadian Mining has agreed with Golden River Resources to complete a private placement of up to 338,111,334 shares, giving Acadian proceeds of up to C\$10 million (\$7.87 million), Acadian said last week. The Halifax, Nova Scotia-based miner said it would use the proceeds for overhead, the advancement of its gold properties and to pay down debt of its subsidiary, ScoZinc, pursuant to a budget to be approved by Golden River.

**China's zinc output off 12%:** Recent production cutbacks by Chinese zinc smelters have led to a near-12% drop in the country's zinc output in the first two months of this year, said Macquarie Research analysts last week. Chinese zinc production totaled 499,800 mt for January and February, down 11.8% from the same period last year, the report said. The smelters' output drop began late last year, sidelining about 1 million mt/year of capacity, the report said. "This big drop in output reflects smelters' lower production utilization rates along with lower treatment charges and a growing shortage of raw material suppliers in China and in the global market," the analyst said.

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## STEEL & FERROALLOYS

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### **Moly oxide slips on slow demand**

*... from page 1*

they thought they could cash in on stimulus plans elsewhere, but I think they know that was an error of judgment."

Several traders said that if China's moly oxide purchases evaporate, prices could be headed for \$6/lb or less. "China is going to be the key. China is the only thing that's held it up," the trader said.

A producer agreed saying, "I think we will definitely see \$6 moly before the year is out. Without China, there is just no demand elsewhere."

But a second trader said that even with \$6/lb moly oxide prices, the producers of the material as a byproduct would still be able to make money. It is only the primary producers that "can't cope with those type of prices," he stated. He agreed moly could be headed for \$6/lb, while the first trader said it could go down to \$5. The second trader also agreed that Chinese buying was being scaled back.

But another producer dismissed talk that the Chinese were cutting back on moly oxide purchases. "We're still seeing the demand from China," the producer said. "People say they are cutting back, because they're not going to the

traders, they're going to the producers."

The producer said that Chinese buyers were bidding for oxide at \$8.25 or \$8.30 but ended up coming back and agreeing to prices at \$8.45 and \$8.50 CIF. The trader said the levels the Chinese were paying was giving traders no margin to work with, which was why the business had shifted to the producers.

A third producer reported selling 20 mt of oxide last week to a Chinese buyer at \$8.50/lb CIF. He maintained the Chinese were bidding at \$8.45-8.50/lb.

In Asia, no spot market sales were reported in Japan, and one European trader said that Japanese traders and consumers were sitting on 10 months worth of inventory at current usage levels. One consumer, however, was understood to have called in 20 mt of oxide from a requirements contract on a formula based on the Platts Moly Oxide Dealer price.

Chinese converters and traders said they received offers of molybdenum oxide from South America last week mostly within a range of \$8.50-8.70/lb CIF China, down compared with around \$8.80-8.90/lb a week ago. "Despite lower prices, we have stopped buying as we think the price may move down even more in the near future and we would rather just wait and see for a bit longer," a converter said.

A North American producer source reported selling 60 mt of oxide to South Korean buyers at \$8.65-8.70/lb CIF. The buyer needed the material by mid-April but is likely to have to settle for second-half April delivery. However, several sources said that the business could not be repeated at those levels, due to negative conversion margins, which made it more economic to buy ferromolybdenum instead.

Some also said that the material may have seen a slight premium for being low in copper.

There were also reports that a South Korean interest sold a 20 mt parcel to an Indian converter at a high price of \$8.90/lb CIF, although this was also dismissed by several sources as being an unrepresentative high price.

In Europe, sales were sparse. A trader sold 24 mt of briquettes to a French consumer at \$8.45/lb, while stating that there was no longer a premium for briquettes over powder. The lack of a premium for briquettes was also confirmed by several other traders.

Other business, including inter-merchant business, was seen in ranges of \$8.40-8.45/lb, while offers as low as \$8.30 were reported by several sources, with a few isolated offers seen at \$8.25.

The Platts Dealer Molybdenum Oxide price fell to \$8.30-8.50/lb last week from \$8.50-8.60/lb a week earlier. The Dealer Oxide price represents repeatable dealer-to-consumer business for material with a 57% minimum moly content, in drums or equivalent, in-warehouse European ports, in-warehouse US and CIF Japan main ports. The price was based on 24 mt of business, all in-warehouse, Europe.

The Platts Molybdenum Oxide Transaction price fell to \$8.30-8.50/lb last week from \$8.50-8.80/lb a week earlier,

based on 108 mt of business, all in Europe. The Oxide Transaction price represents repeatable dealer-to-consumer, producer-to-consumer, producer-to-dealer and/or dealer-to-dealer spot business for material with a 57% minimum moly content, in drums or equivalent, in-warehouse European ports, in-warehouse US, CIF Japan main ports, delivered duty-unpaid South Korean ports and CIF Nhava Sheva/Mumbai, India.

### European ferromoly also under pressure

Meanwhile, European ferromoly prices came under further downward pressure on weak demand and large inventories held by traders, despite the strong exports of oxide to China since the beginning of the year.

Small parcels of 3 mt were seen sold earlier in the week to a large steelmaker in Europe on extended payment terms of 60 days at \$21.50/kg. However, larger volumes were seen at less than \$21/kg.

One trader reported selling 4 mt to a customer early in the week at \$21.40/kg in-warehouse and tried to sell later at the same level but was unable to, as the customer was bidding at well below \$21, the trader said.

A converter said that it had achieved sales of between \$21 and \$21.40 for small lots of between 3 mt and 10 mt and was holding out for \$21 for further sales.

But an aggressive Russian converter offered at \$20.50/kg later in the week and eventually was booked for 20 mt, while other business was seen at \$20.60.

Consumers polled by Platts were largely inactive in ferromoly last week, adding that they saw the market at no higher than \$21, based on the price indications and unsolicited offers they had seen.

The Platts assessment for European ferromolybdenum fell last week to \$20.50-21.00/kg from \$21.00-21.50/kg a week earlier. Chinese export prices were unchanged from a week ago at \$23-24/kg FOB China.

Ferromoly prices were also under downward pressure in the US, amid sporadic business. Two truckload sales were reported at \$9.20 and \$9.30, respectively, in-warehouse. However, an integrated mill was also said to be in the market for two truckloads of material and was reportedly offered at less than \$9/lb, which could not be verified.

The Platts US ferromolybdenum price fell to \$9.20-9.30/lb last week from \$9.40-9.70 a week earlier.—*Anthony Poole, with Wendy Shair in Hong Kong*

## US/European ferroalloys prices ease further on weak demand

*New York*—Weak demand and huge stock overhangs in the hands of traders, producers and consumers continued to weigh on US and European ferroalloys prices, which drifted lower last week, market participants said.

Even sales to consumers were not enough to stop prices from falling. Last week saw up to 1,000 mt of

silicomanganese for second-quarter delivery sold to a steel mill in a large mini-mill group at around 43¢/lb, delivered US, which nets back to around 40.50-41.00¢/lb FOB Pittsburgh, according to traders and consumers.

Meanwhile, there were unconfirmed reports that another US mini-mill bought around 500 mt of high-carbon ferromanganese at around \$1,220/lt delivered, market sources said. The same consumer was also said to have bought 250 mt medium-carbon ferromanganese at around \$1.10/lb FOB Pittsburgh, although some sources reported the price at \$1.12/lb, delivered.

The same mill was also reportedly in the market for ferrosilicon, which some traders said could go at less than 60¢/lb FOB Pittsburgh, but indications were that the mill had not booked anything by close of business March 18.

And an inquiry for 24 truckloads of high-carbon ferrochrome for Q2 2009 delivery did not yield any business, traders and producer sources said.

With the US steel industry utilizing just under 41% of its capacity, according to the latest production figures from the American Iron and Steel Institute, traders and consumers maintained that the demand for ferroalloys in the US market remains poor.

“We’re all facing the reality that traders have plenty of inventory, producers have huge inventories and so do many of the consumers,” said a trader. “You just can’t get away from it.”

A consumer said that he was getting the sense that key alloy prices were softening, adding that he was likely to be in the market next week for a variety of alloys for Q2 deliveries.

Traders and producers said the fact that the high-carbon ferrochrome inquiry came to nothing was helping to undermine prices, as were weaker market conditions in Europe. One source said that high-carbon prices in Europe were closer to 65¢/lb, almost 10¢ below the US market.

One source said the differential could result in some material being shipped to the US, which would put the US price under further downward pressure.

However, the first trader said that, while he agreed prices were closer to 65¢ in Europe, he doubted whether it would trigger shipments to the US. “When you come to the US, ferrochrome is weak like everything else. The price is coming down because demand is awful,” making sales very difficult, he said.

A third trader concurred. “The problem with bringing in material from Europe is that it would be such a gamble,” he said. “You can look at the price differential and say ‘It’s worth it,’ but you’d be mad to do it without a confirmed sale to a [US] consumer.”

He said that the last piece of consumer business he had seen was to a customer in the southwestern US at 77¢ delivered, which netted back to around 72¢ FOB Pittsburgh. But this business had been concluded in late February, he added.

Meanwhile, consumer sources indicated that prices were

less than 70¢ for ASTM grades.

The Platts assessment for high-carbon 60-65% Cr ferrochrome in the US eased to 69.00-75.00¢/lb FOB Pittsburgh last week, from 70.00-80.00¢ a week earlier.

The Platts assessment for high-carbon ferromanganese, 78% Mn max, fell to \$1,200-1,250/lt FOB Pittsburgh from \$1,250-1,320/lt a week earlier. The Platts medium-carbon price eased to \$1.10-1.14/lb FOB Pittsburgh from \$1.14-1.18 previously. The Platts 65% Mn silicomanganese price narrowed to 40-43¢/lb FOB Pittsburgh from 40-45¢.

In Europe, high-carbon ferrochrome prices came under pressure amid ongoing weak demand in both the carbon and stainless steel sectors. The Platts European 62% Cr, high-carbon ferrochrome price fell to 66-73¢/lb, delivered, last week from 80-90¢/lb previously.

Two truckloads of business were reported at 68¢/lb, delivered, packed in bags, which would net back to 66¢/lb, delivered, in bulk. However, traders and producer sources reported sales in the low 70¢ range. A central European consumer, meanwhile, said that he had been offered material in the "mid-to-high 60s¢" range and expected to be in the market early this week for a large volume, but the buyer declined to detail the precise tonnage required.

Low-carbon prices also eased, with the Platts 0.10% European ferrochrome price falling below the \$2/lb level for the first time since November 2007, assessed on March 19 at \$1.90-2.05/lb delivered, down from \$2.00-2.20. The market peaked at \$5.00-5.20 last August.

Small-volume business was seen at \$1.90-1.92, with even smaller parcels trading in a range of \$2.00-2.05/lb, according to traders and consumers.—Anthony Poole

### Elsewhere in steel & ferroalloys...

**European/US cobalt prices rise:** Cobalt prices for high grades and Russian aerospace grades rose sharply in Europe and the US, with many market participants attributing the increase to Chinese speculative buying, rather than any underlying improvement in end-use demand. Supplies of Falconbridge (Xstrata) brand of high-purity 99.8% cathode and Russian K1Ay ingot were said to be in particularly tight supply. One trader said the other reason for the price increase and tight availability was because "Glencore and OMG are doing a pretty good job of keeping it [Falconbridge and K1Ay Russian ingot] out of traders' hands." Business, largely inter-merchant, was reported for Falconbridge in a range of \$16.00-16.25/lb, although offers emerged at much higher numbers. Two traders in Europe said they would offer at \$17.50/lb. Another trader said he would offer at \$18. Meanwhile, one trader reported achieving \$18.60/lb on a very prompt delivery for a 2 mt sale of Falconbridge material, which he described as unrepresentative of the market. One trader reported selling more than 100 mt of Russian K1Ay over the last week at around \$15/lb, much of which was to

traders. Consumers said that they were also seeing higher numbers quoted by sellers, although one consumer said that he had plenty of calls offering material last week. He said that a melt involving the use of cobalt kept being pushed back by his end customer. He said the customer kept looking at the nickel and chrome unit costs, searching "for the bottom of the market" to take advantage of the surcharge mechanism, which worked two months out. The Platts assessment for 99.8% cobalt cathode rose last week to \$15.50-16.50/lb, delivered US, from \$13.00-14.50 a week earlier. The assessment for the same grade in Europe rose to \$15.50-16.50/lb from \$12.50-14.50/lb previously. Russian 99.3% ingot rose to \$14.00-15.50/lb delivered US.

**World steel output falls:** Global crude steel production fell to 84 million mt in February, down 22% from February last year, according to figures released last week for the 66 countries reporting to the World Steel Association. Production showed a continued decline in nearly all the major steel-producing countries in February, compared with the same month in 2008, except in Iran and China, the association said in a statement. Iran's steel output jumped 15.9% last month to 900,000 mt; China's crude steel production reached 40.4 million mt, up 4.9%. Elsewhere in Asia, Japan's February output plummeted more than 44% to 5.5 million mt, and South Korea registered a drop of almost 25% to 3.2 million mt. In the EU, year-on-year output declines were as follows: Germany, down 32% to 2.6 million mt; Italy, down almost 40% to 1.7 million mt; France, down 35.7% to 1 million mt. The US registered a massive 54.2% fall in output to 3.8 million mt. Russian crude steel output fell 32.1% to 4.1 million mt, while Ukraine's February output was down 33.6% to 2.3 million mt.

**US steel runs at 41% capacity:** Raw steel production in the US declined by 62,000 st or 6.0% for the week ended March 14, according to the weekly report from the American Iron and Steel Institute. Total production was 976,000 st, down from the previous week's total of 1.038 million. The most recent week's total was less than half the volume of 2.14 million st produced in the same week a year ago, when steel mills were running near full capacity. US mills operated at an estimated 40.9% of capacity last week, versus an estimated 89.7% a year ago. The US steel industry has varied production on a week-to-week basis, basically operating only to fill firm orders and not build inventory. Total production in the first 10 weeks of 2009 was 10.665 million st, a decline of 52.8% from 22.561 million st produced during the same period a year ago.

**Timminco to cut silicon output:** Canadian silicon producer Timminco is to temporarily curtail production of silicon metal, citing difficult market conditions and reduced demand in the chemical and aluminum industries, the company said last week.

## Daily prices

|                                      | Units  | 16 Mar 09         | 17 Mar 09         | 18 Mar 09         | 19 Mar 09         | 20 Mar 09         | Week avg |
|--------------------------------------|--------|-------------------|-------------------|-------------------|-------------------|-------------------|----------|
| <b>Aluminum</b>                      |        |                   |                   |                   |                   |                   |          |
| LME HG Cash                          | \$/mt  | 1310.500/1311.000 | 1316.000/1316.500 | 1338.500/1339.000 | 1400.000/1401.000 | 1433.000/1434.000 | 1359.950 |
| LME HG 3-Month                       | \$/mt  | 1344.500/1345.500 | 1369.000/1370.000 | 1375.000/1376.000 | 1435.000/1436.000 | 1469.500/1470.000 | 1399.050 |
| LME HG 15-Month                      | \$/mt  | 1480.000/1485.000 | 1505.000/1510.000 | 1513.000/1518.000 | 1575.000/1580.000 | 1608.000/1613.000 | 1538.700 |
| LME HG 27-Month                      | \$/mt  | 1498.000/1503.000 | 1623.000/1628.000 | 1633.000/1638.000 | 1695.000/1700.000 | 1727.000/1732.000 | 1637.700 |
| LME HG Settlement                    | \$/mt  | 1311.000          | 1316.500          | 1339.000          | 1401.000          | 1434.000          | 1360.300 |
| LME Alloy Cash                       | \$/mt  | 1155.000/1156.000 | 1155.000/1160.000 | 1150.000/1160.000 | 1219.000/1220.000 | 1210.000/1211.000 | 1179.600 |
| LME Alloy 3-Month                    | \$/mt  | 1175.000/1185.000 | 1185.000/1190.000 | 1180.000/1190.000 | 1239.000/1240.000 | 1230.000/1250.000 | 1206.400 |
| LME Alloy 15-Month                   | \$/mt  | 1280.000/1290.000 | 1290.000/1300.000 | 1285.000/1295.000 | 1340.000/1350.000 | 1340.000/1350.000 | 1312.000 |
| LME Alloy 27-MO                      | \$/mt  | 1375.000/1385.000 | 1385.000/1395.000 | 1380.000/1390.000 | 1435.000/1445.000 | 1435.000/1445.000 | 1407.000 |
| LME Alloy Settlement                 | \$/mt  | 1156.000          | 1160.000          | 1160.000          | 1220.000          | 1211.000          | 1181.400 |
| LME NA Alloy Cash                    | \$/mt  | 1020.000/1025.000 | 1020.000/1025.000 | 1025.000/1030.000 | 1075.000/1085.000 | 1125.000/1130.000 | 1056.000 |
| LME NA Alloy 3-MO                    | \$/mt  | 1040.000/1060.000 | 1074.500/1075.000 | 1070.000/1080.000 | 1105.000/1115.000 | 1150.000/1155.000 | 1092.450 |
| LME NA Alloy 15-MO                   | \$/mt  | 1170.000/1180.000 | 1195.000/1205.000 | 1195.000/1205.000 | 1230.000/1240.000 | 1275.000/1285.000 | 1218.000 |
| LME NA Alloy 27-MO                   | \$/mt  | 1290.000/1300.000 | 1315.000/1325.000 | 1315.000/1325.000 | 1350.000/1360.000 | 1395.000/1405.000 | 1338.000 |
| LME NA Alloy Settlement              | \$/mt  | 1025.000          | 1025.000          | 1030.000          | 1085.000          | 1130.000          | 1059.000 |
| LME HG inventories                   | mt     | 3369375           | 3374850           | 3440700           | 3448900           | 3451900           | —        |
| LME Alloy inventories                | mt     | 106800            | 107160            | 106920            | 106860            | 107120            | —        |
| LME NA Alloy inventories             | mt     | 235140            | 234880            | 235420            | 235420            | 235440            | —        |
| MW US Transaction                    | cts/lb | 63.666            | 63.916            | 64.936            | 67.748            | 69.245            | 65.902   |
| MW US Trans premium                  | cts/lb | 4.200             | 4.200             | 4.200             | 4.200             | 4.200             | 4.200    |
| MW US A-380 Alloy                    | cts/lb | 59.000/61.000     | NA/NA             | NA/NA             | 59.000/61.000     | NA/NA             | 60.000   |
| MW US 319                            | cts/lb | 64.000/67.000     | NA/NA             | NA/NA             | 65.000/67.000     | NA/NA             | 65.750   |
| MW US Sec 356                        | cts/lb | 75.000/77.000     | NA/NA             | NA/NA             | 75.000/77.000     | NA/NA             | 76.000   |
| MW US F132                           | cts/lb | 65.000/68.000     | NA/NA             | NA/NA             | 66.000/68.000     | NA/NA             | 66.750   |
| US Old Cast                          | cts/lb | 34.000/36.000     | NA/NA             | NA/NA             | 34.500/36.500     | NA/NA             | 35.250   |
| US Old Sheet                         | cts/lb | 32.500/34.500     | NA/NA             | NA/NA             | 33.000/35.000     | NA/NA             | 33.750   |
| US Mill-grade MLCCs                  | cts/lb | 40.000/42.000     | NA/NA             | NA/NA             | 42.000/44.000     | NA/NA             | 42.000   |
| US Smelter-grade MLCCs               | cts/lb | 34.000/36.000     | NA/NA             | NA/NA             | 37.000/39.000     | NA/NA             | 36.500   |
| US HG Auto Shreds                    | cts/lb | 38.000/40.000     | NA/NA             | NA/NA             | 40.000/42.000     | NA/NA             | 40.000   |
| US LG Auto Shreds                    | cts/lb | 36.000/38.000     | NA/NA             | NA/NA             | 38.000/40.000     | NA/NA             | 38.000   |
| US Turnings                          | cts/lb | 28.000/30.000     | NA/NA             | NA/NA             | 28.000/30.000     | NA/NA             | 29.000   |
| COMEX 1st month                      | cts/lb | 62.250            | 62.500            | 63.000            | 66.500            | 66.500            | 64.150   |
| COMEX 2nd month                      | cts/lb | 62.750            | 63.000            | 63.500            | 67.000            | 67.000            | 64.650   |
| COMEX 3rd month                      | cts/lb | 63.250            | 63.500            | 64.000            | 67.500            | 67.500            | 65.150   |
| COMEX T-Bar inventories              | st     | 8105              | 8105              | 8105              | 8105              | 8105              | —        |
| COMEX Sow inventories                | st     | 3738              | 3738              | 3738              | 3738              | 3738              | —        |
| C&F China spot                       | \$/mt  | 1410.000/1430.000 | 1386.000/1406.000 | 1391.500/1411.500 | 1414.000/1434.000 | 1476.000/1496.000 | 1425.500 |
| C&F China LME premium                | \$/mt  | 70.000/75.000     | 70.000/75.000     | 70.000/75.000     | 70.000/75.000     | 70.000/75.000     | 72.500   |
| C&F China-Russian Grade              | \$/mt  | 45.000/50.000     | 45.000/50.000     | 45.000/50.000     | 45.000/50.000     | 45.000/50.000     | 47.500   |
| S'pore in-warehouse premium          | \$/mt  | 35.000/45.000     | 30.000/45.000     | 30.000/45.000     | 30.000/45.000     | 50.000/45.000     | 41.000   |
| Japan del (current mo)               | \$/mt  | 1362.410/1392.940 | 1369.010/1369.010 | 1344.040/1374.430 | 1365.550/1396.960 | NA/NA             | 1371.794 |
| Japan del (2 mos. out)               | \$/mt  | 1366.370/1396.910 | 1373.060/1403.470 | 1348.090/1378.480 | 1365.550/1396.960 | NA/NA             | 1378.611 |
| CIF Japan premium                    | \$/mt  | 55.000/58.000     | 55.000/58.000     | 55.000/58.000     | 56.000/58.000     | NA/NA             | 56.625   |
| CIF Japan premium Q2                 | \$/mt  | 58.000/62.000     | 58.000/62.000     | 58.000/62.000     | 56.000/58.000     | NA/NA             | 59.250   |
| GW premium paid IW Rotterdam         | \$/mt  | 30.000/45.000     | 30.000/45.000     | 30.000/45.000     | NA/NA             | 30.000/45.000     | 37.500   |
| GW premium unpaid IW Rotterdam       | \$/mt  | 20.000/40.000     | 20.000/40.000     | 25.000/35.000     | NA/NA             | 25.000/35.000     | 30.000   |
| A7E premium unpaid IW Rotterdam      | \$/mt  | 20.000/40.000     | 20.000/40.000     | 25.000/35.000     | NA/NA             | 25.000/35.000     | 30.000   |
| A7E premium unpaid FOB St Petersburg | \$/mt  | 10.000/15.000     | 10.000/15.000     | 10.000/15.000     | NA/NA             | 10.000/15.000     | 12.500   |
| Alumina Australia C&F China          | \$/mt  | 210.000/220.000   | 210.000/220.000   | 210.000/220.000   | 210.000/220.000   | 210.000/220.000   | 215.000  |
| <b>Copper</b>                        |        |                   |                   |                   |                   |                   |          |
| COMEX HG 1st Position                | cts/lb | 173.950           | 171.750           | 170.900           | 179.800           | 178.750           | 175.030  |
| COMEX HG 2nd Position                | cts/lb | 174.700           | 172.400           | 171.650           | 180.750           | 179.600           | 175.820  |
| COMEX HG 3rd Position                | cts/lb | 177.550           | 175.150           | 175.000           | 183.750           | 182.800           | 178.850  |
| COMEX inventories                    | st     | 44441             | 44441             | 44441             | 44441             | 44441             | —        |
| LME Grade A Cash                     | \$/mt  | 3685.000/3690.000 | 3760.000/3761.000 | 3735.000/3740.000 | 3929.000/3930.000 | 3910.000/3911.000 | 3805.100 |
| LME Grade A 3-Month                  | \$/mt  | 3750.000/3755.000 | 3800.000/3801.000 | 3762.500/3763.000 | 3975.000/3980.000 | 3959.000/3960.000 | 3850.550 |
| LME Grade A 15-Month                 | \$/mt  | 3830.000/3840.000 | 3865.000/3875.000 | 3830.000/3840.000 | 4045.000/4055.000 | 4030.000/4040.000 | 3925.000 |
| LME Grade A 27-Month                 | \$/mt  | 3890.000/3900.000 | 3920.000/3930.000 | 3885.000/3895.000 | 4100.000/4110.000 | 4085.000/4095.000 | 3981.000 |
| LME Settlement                       | \$/mt  | 3690.000          | 3761.000          | 3740.000          | 3930.000          | 3911.000          | 3806.400 |
| LME inventories                      | mt     | 494850            | 494525            | 495150            | 493450            | 503950            | —        |

## Daily prices

|                             | Units  | 16 Mar 09         | 17 Mar 09         | 18 Mar 09         | 19 Mar 09         | 20 Mar 09         | Week avg |
|-----------------------------|--------|-------------------|-------------------|-------------------|-------------------|-------------------|----------|
| MW Atlantic Seaboard        | cts/lb | 163.176           | 166.396           | 165.444           | 174.062           | 173.200           | 168.456  |
| MW CIF Europe               | cts/lb | 167.376           | 170.596           | 169.644           | 178.262           | 177.400           | 172.656  |
| MW Composite                | cts/lb | 179.776           | 177.576           | 176.726           | 185.626           | 184.576           | 180.856  |
| MW US Producer Cathode      | cts/lb | 179.776           | 177.576           | 176.726           | 185.626           | 184.576           | 180.856  |
| MW US Producer Refined      | cts/lb | 178.376           | 176.176           | 175.326           | 184.226           | 183.176           | 179.456  |
| Japan del (current mo)      | \$/mt  | 4070.830/4172.600 | 4053.920/4155.270 | 4254.890/4356.190 | 4397.910/4502.620 | NA/NA             | 4245.529 |
| Japan del (2 mos. out)      | \$/mt  | 4070.830/4172.600 | 4053.920/4155.270 | 4254.890/4356.190 | 4397.910/4502.620 | NA/NA             | 4245.529 |
| S'pore in-warehouse premium | \$/mt  | 70.000/90.000     | 70.000/90.000     | 70.000/90.000     | 70.000/90.000     | 70.000/90.000     | 80.000   |
| C&F China                   | \$/mt  | 3771.000/3791.000 | 3790.000/3810.000 | 3861.000/3881.000 | 3840.000/3860.000 | 4030.000/4050.000 | 3868.400 |
| Western grade-LME premium   | \$/mt  | 70.000/90.000     | 70.000/90.000     | 70.000/90.000     | 70.000/90.000     | 70.000/90.000     | 80.000   |

## Zinc

|                      |        |                   |                   |                   |                   |                   |          |
|----------------------|--------|-------------------|-------------------|-------------------|-------------------|-------------------|----------|
| LME SHG Cash         | \$/mt  | 1230.000/1230.500 | 1225.000/1226.000 | 1191.000/1192.000 | 1221.000/1222.000 | 1225.000/1230.000 | 1219.250 |
| LME SHG 3-Month      | \$/mt  | 1257.000/1258.000 | 1250.000/1252.000 | 1221.000/1221.500 | 1247.500/1248.000 | 1254.000/1255.000 | 1246.400 |
| LME SHG 15-Month     | \$/mt  | 1320.000/1325.000 | 1315.000/1320.000 | 1283.000/1288.000 | 1310.000/1315.000 | 1318.000/1323.000 | 1311.700 |
| LME SHG 27-Month     | \$/mt  | 1365.000/1370.000 | 1360.000/1365.000 | 1328.000/1333.000 | 1355.000/1360.000 | 1363.000/1368.000 | 1356.700 |
| LME Settlement       | \$/mt  | 1230.500          | 1226.000          | 1192.000          | 1222.000          | 1230.000          | 1220.100 |
| LME inventories      | mt     | 341625            | 345875            | 345225            | 343500            | 341850            | —        |
| MW Four Corners      | \$/mt  | 1243.875          | 1238.250          | 1206.375          | 1234.625          | 1241.000          | 1232.825 |
| MW North America SHG | cts/lb | 58.665            | 58.460            | 56.918            | 58.279            | 58.642            | 58.193   |
| MW North America GAL | cts/lb | 59.165            | 58.960            | 57.418            | 58.779            | 59.142            | 58.693   |
| MW Alloyer No. 3     | cts/lb | 71.815            | 71.610            | 70.068            | 71.429            | 71.792            | 71.343   |

## Lead

|                    |        |                   |                   |                   |                   |                   |          |
|--------------------|--------|-------------------|-------------------|-------------------|-------------------|-------------------|----------|
| LME Cash           | \$/mt  | 1284.000/1285.000 | 1333.000/1333.500 | 1320.000/1320.500 | 1334.500/1335.000 | 1301.000/1302.000 | 1314.850 |
| LME 3-Month        | \$/mt  | 1287.000/1288.000 | 1335.000/1338.000 | 1333.000/1333.500 | 1340.500/1341.000 | 1310.500/1311.000 | 1321.750 |
| LME 15-Month       | \$/mt  | 1312.000/1317.000 | 1360.000/1365.000 | 1357.000/1362.000 | 1358.000/1363.000 | 1328.000/1333.000 | 1345.500 |
| LME 27-Month       | \$/mt  | 1323.000/1328.000 | 1372.000/1377.000 | 1368.000/1373.000 | 1373.000/1378.000 | 1343.000/1348.000 | 1358.300 |
| LME Settlement     | \$/mt  | 1285.000          | 1333.500          | 1320.500          | 1335.000          | 1302.000          | 1315.200 |
| LME inventories    | mt     | 59150             | 59025             | 60350             | 60100             | 60075             | —        |
| MW Four Corners    | \$/mt  | 1286.000          | 1334.875          | 1326.750          | 1337.750          | 1306.125          | 1318.300 |
| MW NA Producer     | cts/lb | 66.701            | 66.880            | 66.832            | 66.886            | 66.764            | 66.813   |
| Secondary Producer | cts/lb | 68.727            | 68.727            | 68.727            | 68.727            | 68.727            | 68.727   |

## Nickel

|                 |       |                     |                     |                     |                     |                     |           |
|-----------------|-------|---------------------|---------------------|---------------------|---------------------|---------------------|-----------|
| LME Cash        | \$/mt | 9830.000/9835.000   | 10000.000/10005.000 | 9700.000/9705.000   | 10010.000/10015.000 | 9900.000/9905.000   | 9890.500  |
| LME 3-Month     | \$/mt | 9925.000/9950.000   | 10075.000/10100.000 | 9800.000/9805.000   | 10095.000/10100.000 | 9950.000/9975.000   | 9977.500  |
| LME 15-Month    | \$/mt | 10150.000/10250.000 | 10300.000/10400.000 | 10000.000/10100.000 | 10305.000/10405.000 | 10175.000/10275.000 | 10236.000 |
| LME Settlement  | \$/mt | 9835.000            | 10005.000           | 9705.000            | 10015.000           | 9905.000            | 9893.000  |
| MW LME Mean     | \$/mt | 9885.000            | 10045.000           | 9752.500            | 10055.000           | 9932.500            | 9934.000  |
| LME inventories | mt    | 100002              | 100422              | 101298              | 101778              | 101616              | —         |

## Tin

|                 |        |                     |                     |                     |                     |                     |           |
|-----------------|--------|---------------------|---------------------|---------------------|---------------------|---------------------|-----------|
| LME Cash        | \$/mt  | 10545.000/10550.000 | 10450.000/10475.000 | 10050.000/10055.000 | 10645.000/10650.000 | 10425.000/10450.000 | 10429.500 |
| LME 3-Month     | \$/mt  | 10300.000/10325.000 | 10300.000/10325.000 | 9945.000/9950.000   | 10550.000/10600.000 | 10255.000/10260.000 | 10281.000 |
| LME 15-Month    | \$/mt  | 10000.000/10050.000 | 9985.000/10035.000  | 9635.000/9685.000   | 10270.000/10320.000 | 9960.000/10010.000  | 9995.000  |
| LME Settlement  | \$/mt  | 10550.000           | 10475.000           | 10055.000           | 10650.000           | 10450.000           | 10436.000 |
| LME Inventories | \$/mt  | 9625.000            | 10245.000           | 10410.000           | 10480.000           | 10735.000           | 10299.000 |
| MW Composite    | cts/lb | 663.730             | 665.370             | 648.250             | 658.220             | 661.270             | 659.368   |
| Kuala Lumpur    | cts/lb | 476.250             | 480.740             | 471.590             | 459.420             | 476.150             | 472.830   |
| MW NY Dealer    | cts/lb | 495.000             | NA                  | NA                  | 509.000             | NA                  | 502.000   |
| MW NY low-lead  | cts/lb | 498.000             | NA                  | NA                  | 512.000             | NA                  | 505.000   |

## Gold

|                              |          |             |             |             |             |             |             |
|------------------------------|----------|-------------|-------------|-------------|-------------|-------------|-------------|
| COMEX 1st Position           | \$/tr oz | 921.600     | 916.400     | 888.700     | 958.300     | 955.800     | 928.160     |
| COMEX 2nd Position           | \$/tr oz | 932.400     | 927.100     | 898.800     | 967.800     | 965.200     | 938.260     |
| Comex Inventories            | tr oz    | 8722363.000 | 8721175.000 | 8774504.000 | 8774504.000 | 8779324.000 | 8754374.000 |
| Engelhard Unfabricated       | \$/tr oz | 921.710     | 917.710     | 895.420     | 958.780     | 956.270     | 929.978     |
| Handy & Harman               | \$/tr oz | 919.500     | 915.500     | 893.250     | 956.500     | 954.000     | 927.750     |
| London Final                 | \$/tr oz | 919.500     | 915.500     | 893.250     | 956.500     | 954.000     | 927.750     |
| London Initial               | \$/tr oz | 923.000     | 920.000     | 910.750     | 937.250     | 957.000     | 929.600     |
| LBMA 3 Mo Swap (GOFO)        | NA       | NA          | NA          | NA          | NA          | NA          | NA          |
| LBMA Lease (LIBOR-GOFO) 3 Mo | NA       | NA          | NA          | NA          | NA          | NA          | NA          |

## Daily prices

|                        | Units     | 16 Mar 09 | 17 Mar 09 | 18 Mar 09 | 19 Mar 09 | 20 Mar 09 | Week avg |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|----------|
| <b>PGMs</b>            |           |           |           |           |           |           |          |
| <b>Palladium</b>       |           |           |           |           |           |           |          |
| Nymex Nearby           | \$/tr oz  | 200.250   | 197.850   | 194.650   | 206.000   | 210.900   | 201.930  |
| J.Matthey Base NA      | \$/tr oz  | 200.000   | 199.000   | 196.000   | 208.000   | 207.000   | 202.000  |
| J.Matthey Base Asia    | \$/tr oz  | 198.000   | 200.000   | 197.000   | 201.000   | 207.000   | 200.600  |
| J.Matthey Base Europe  | \$/tr oz  | 200.000   | 200.000   | 197.000   | 200.000   | 207.000   | 200.800  |
| Engelhard Unfabricated | \$/tr oz  | 199.000   | 197.000   | 195.000   | 207.000   | 206.000   | 200.800  |
| London AM Fix          | \$/tr oz  | 198.000   | 199.000   | 196.000   | 197.000   | 207.000   | 199.400  |
| London PM Fix          | \$/tr oz  | 198.500   | 195.000   | 194.000   | 203.000   | 206.000   | 199.300  |
| 3-month borrow rate    | %         | 2.000     | 2.000     | 2.000     | 2.000     | NA        | 2.000    |
| <b>Platinum</b>        |           |           |           |           |           |           |          |
| Nymex Nearby           | \$/tr oz  | 1049.400  | 1051.800  | 1042.400  | 1121.800  | 1114.200  | 1075.920 |
| J.Matthey Base NA      | \$/tr oz  | 1060.000  | 1049.000  | 1049.000  | 1095.000  | 1122.000  | 1075.000 |
| J.Matthey Base Asia    | \$/tr oz  | 1056.000  | 1063.000  | 1053.000  | 1061.000  | 1120.000  | 1070.600 |
| J.Matthey Base Europe  | \$/tr oz  | 1069.000  | 1058.000  | 1056.000  | 1059.000  | 1120.000  | 1072.400 |
| Engelhard Unfabricated | \$/tr oz  | 1060.000  | 1046.000  | 1044.000  | 1100.000  | 1110.000  | 1072.000 |
| London AM Fix          | \$/tr oz  | 1057.000  | 1052.000  | 1050.000  | 1055.000  | 1118.000  | 1066.400 |
| London PM Fix          | \$/tr oz  | 1054.000  | 1047.000  | 1044.000  | 1087.000  | 1110.000  | 1068.400 |
| 3-month borrow rate    | %         | 2.000     | 2.000     | 2.000     | 2.000     | NA        | 2.000    |
| <b>Iridium</b>         |           |           |           |           |           |           |          |
| J.Matthey Base NA      | \$/tr oz  | 425.000   | 425.000   | 425.000   | 425.000   | 425.000   | 425.000  |
| Engelhard Unfabricated | \$/tr oz  | 420.000   | 420.000   | 420.000   | 420.000   | 420.000   | 420.000  |
| <b>Rhodium</b>         |           |           |           |           |           |           |          |
| J.Matthey Base Asia    | \$/tr oz  | 1175.000  | 1175.000  | 1150.000  | 1150.000  | 1125.000  | 1155.000 |
| J.Matthey Base Europe  | \$/tr oz  | 1175.000  | 1175.000  | 1150.000  | 1125.000  | 1125.000  | 1150.000 |
| J.Matthey Base NA      | \$/tr oz  | 1175.000  | 1150.000  | 1150.000  | 1125.000  | 1125.000  | 1145.000 |
| Engelhard Unfabricated | \$/tr oz  | 1175.000  | 1150.000  | 1150.000  | 1150.000  | 1150.000  | 1155.000 |
| <b>Ruthenium</b>       |           |           |           |           |           |           |          |
| J.Matthey Base NA      | \$/tr oz  | 80.000    | 80.000    | 80.000    | 80.000    | 80.000    | 80.000   |
| Engelhard Unfabricated | \$/tr oz  | 80.000    | 80.000    | 80.000    | 80.000    | 80.000    | 80.000   |
| <b>Silver</b>          |           |           |           |           |           |           |          |
| COMEX 1st Position     | cts/tr oz | 1290.500  | 1268.500  | 1195.000  | 1350.000  | 1382.700  | 1297.340 |
| COMEX 2nd Position     | cts/tr oz | 1289.000  | 1267.000  | 1193.500  | 1352.000  | 1384.000  | 1297.100 |
| COMEX 3rd Position     | cts/tr oz | 1295.700  | 1273.500  | 1199.500  | 1358.000  | 1390.200  | 1303.380 |
| Comex Inventories      | tr oz     | 125041915 | 124616884 | 124510704 | 124500639 | 124829756 |          |
| Handy & Harman         | cts/tr oz | 1292.500  | 1271.000  | 1225.000  | 1350.000  | 1362.500  | 1300.200 |
| Engelhard Unfabricated | cts/tr oz | 1295.000  | 1280.000  | 1252.000  | 1353.000  | 1361.000  | 1308.200 |
| London Fix, Pence      | p/tr oz   | 921.016   | 917.916   | 907.847   | 906.142   | 946.274   | 919.839  |
| London Fix, US         | cts/tr oz | 1306.000  | 1286.000  | 1261.000  | 1313.000  | 1365.000  | 1306.200 |

## Exchange rates

|                                 |  |          |          |          |          |          |          |
|---------------------------------|--|----------|----------|----------|----------|----------|----------|
| <b>US Federal Reserve Rates</b> |  |          |          |          |          |          |          |
| *Sterling spot                  |  | NA       | NA       | NA       | NA       | NA       | NA       |
| *Sterling 3-month               |  | NA       | NA       | NA       | NA       | NA       | NA       |
| *Canadian Dollar spot           |  | NA       | NA       | NA       | NA       | NA       | NA       |
| *Canadian Dollar 3-month        |  | NA       | NA       | NA       | NA       | NA       | NA       |
| *Yen                            |  | NA       | NA       | NA       | NA       | NA       | NA       |
| <b>LME Rates</b>                |  |          |          |          |          |          |          |
| LME Sterling                    |  | 1.418000 | 1.399000 | 1.398000 | 1.450000 | 1.442000 | 1.421400 |
| LME Yen                         |  | 98.4500  | 98.8800  | 98.3400  | 94.8900  | 95.5900  | 97.2300  |
| LME Euro                        |  | 1.3040   | 1.2970   | 1.3120   | 1.3640   | 1.3590   | 1.3272   |

\*The Federal Reserve is no longer publishing exchange rates. We are looking at replacement source. If you have any suggestions or comments please contact Jackie Roche at 212 904 4111.

**Weekly prices**

**Major Metals**

|                                    |                       | change/date assessed |
|------------------------------------|-----------------------|----------------------|
| <b>Aluminum</b>                    |                       |                      |
|                                    | cts/lb                |                      |
| MW US Market                       | 64.500 / 65.500       | +2.500 / +2.500      |
| US Six-Months P1020                | 4.600                 | 03-19-09             |
| US 6063 Billet Upcharge            | 8.250 / 9.000         | 03-19-09 / 03-19-09  |
| US UBCs                            | 47.000 / 49.000       | +3.000 / +3.000      |
| Painted Siding                     | 43.000 / 45.000       | +5.000 / +5.000      |
| US 6063 press scrap                | 4.500 / 5.500         | 03-19-09 / 03-19-09  |
|                                    | Eur/mt                |                      |
| Alloy 226 delivered European works | 850.000 / 950.000     | -60.000 / -30.000    |
|                                    | \$/mt                 |                      |
| ADC12 FOB China                    | 1300.000 / 1400.000   | 03-17-09 / 03-17-09  |
|                                    | Yuan/mt               |                      |
| ADC12 ex-works China               | 12500.000 / 13000.000 | 03-17-09 / 03-17-09  |

**Copper**

|                                  |                     | change/date assessed |
|----------------------------------|---------------------|----------------------|
|                                  | cts/lb              |                      |
| MW No.1 Burnt Scrap Disc         | 6.000               | +2.000               |
| MW No.1 Bare Bright Disc         | 2.000               | +2.000               |
| MW No.2 Scrap Disc               | 12.000              | +2.000               |
| NY Dealer Premium cathodes       | 3.500 / 4.500       | 03-19-09 / 03-19-09  |
| US Producer cathodes             | 184.550 / 187.240   | +18.050 / +18.050    |
|                                  | \$/mt               |                      |
| Grade A Cathode CIF R dam        | 3844.000 / 3856.000 | +198.000 / +199.000  |
| Grade A Premium CIF R dam        | 40.000 / 50.000     | 03-20-09 / 03-20-09  |
| Grade A CIF Livorno/Salerno      | 3844.000 / 3856.000 | +198.000 / +199.000  |
| Grade A Prem CIF Livorno/Salerno | 40.000 / 50.000     | 03-20-09 / 03-20-09  |
| Russian Standard CIF R dam       | 3784.000 / 3806.000 | +198.000 / +199.000  |
| Russian Standard Prem CIF R dam  | -20.000 / 0.000     | 03-20-09 / 03-20-09  |

**Lead**

|                                  |                     | change/date assessed |
|----------------------------------|---------------------|----------------------|
|                                  | cts/lb              |                      |
| North American Market            | 62.787 / 65.055     | +3.130 / +2.495      |
|                                  | \$/mt               |                      |
| European dealer                  | 1365.000 / 1415.000 | +68.000 / +66.000    |
| European 99.985% Prem IW (R dam) | 50.000 / 100.000    | 03-20-09 / 03-20-09  |
| In-Warehouse S pore Prem         | 150.000 / 170.000   | 03-20-09 / +10.000   |

**Nickel**

|                                 |                       | change/date assessed |
|---------------------------------|-----------------------|----------------------|
|                                 | \$/lb                 |                      |
| NY Dealer/Cathode               | 4.730 / 4.940         | +0.003 / +0.104      |
| NY Dealer/Melting               | 4.730 / 4.940         | +0.003 / +0.104      |
| NY Dealer/Plating               | 4.930 / 5.140         | +0.003 / +0.134      |
|                                 | cts/lb                |                      |
| NY Dealer/cathode Premium       | 40.000                | 03-19-09             |
| NY Dealer/Melting Premium       | 40.000                | 03-19-09             |
| NY Dealer/plating Premium       | 60.000                | 03-19-09             |
|                                 | \$/mt                 |                      |
| Plating Grade IW R dam          | 10088.000 / 10193.000 | +260.000 / +256.000  |
| Plating Grade Prem IW R dam     | 200.000 / 300.000     | 03-20-09 / 03-20-09  |
| Russia Full-Plate               | 9938.000 / 9993.000   | +260.000 / +256.000  |
| Russia Full-Plate Prem IW R dam | 50.000 / 100.000      | 03-20-09 / 03-20-09  |
| Briquette Premium IW R dam      | 150.000 / 200.000     | 03-20-09 / 03-20-09  |
| In-Warehouse S pore Prem        | 170.000 / 200.000     | 03-20-09 / 03-20-09  |

**Tin**

|                             |                       | change/date assessed |
|-----------------------------|-----------------------|----------------------|
|                             | \$/mt                 |                      |
| Europe 99.85% IW R dam      | 10643.000 / 10686.000 | -624.000 / -620.000  |
| Europe 99.85% Prem IW R dam | 220.000 / 250.000     | 03-20-09 / 03-20-09  |
| Europe 99.90% IW R dam      | 10773.000 / 10836.000 | -624.000 / -620.000  |
| Europe 99.90% Prem IW R dam | 350.000 / 400.000     | 03-20-09 / 03-20-09  |

**Zinc**

|                         |           | change/date assessed |
|-------------------------|-----------|----------------------|
|                         | cts/lb    |                      |
| US Dealer SHG           | 58279.000 | +58222.286           |
| MW SHG Premium          | 2.850     | 03-20-09             |
| MW SHG Galv. Prem.      | 3.350     | 03-20-09             |
| MW SHG Alloyer #3 Prem. | 16.000    | 03-20-09             |
|                         | \$/mt     |                      |

|                                   |                     | change/date assessed |
|-----------------------------------|---------------------|----------------------|
| Europe physical SHG IW R dam      | 1288.000 / 1320.000 | +11.000 / +12.000    |
| Europe physical SHG Prem IW R dam | 70.000 / 100.000    | 03-20-09 / 03-20-09  |
| In-Warehouse S pore Prem          | 20.000 / 50.000     | 03-20-09 / +5.000    |

**Precious Metals**

|                                    |                     | change/date assessed |
|------------------------------------|---------------------|----------------------|
| <i>All PGM figures in \$/tr oz</i> |                     |                      |
| <b>Iridium</b>                     |                     |                      |
| MW NY Dealer                       | 380.000 / 425.000   | 03-19-09 / 03-19-09  |
| <b>Osmium</b>                      |                     |                      |
| MW NY Dealer                       | 350.000 / 450.000   | 03-19-09 / 03-19-09  |
| <b>Palladium</b>                   |                     |                      |
| MW NY Dealer                       | 190.000 / 204.000   | -5.000 / +2.000      |
| <b>Platinum</b>                    |                     |                      |
| MW NY Dealer                       | 1040.000 / 1120.000 | 03-19-09 / +40.000   |
| <b>Rhodium</b>                     |                     |                      |
| MW NY Dealer                       | 1025.000 / 1150.000 | -50.000 / -25.000    |
| <b>Ruthenium</b>                   |                     |                      |
| MW NY Dealer                       | 40.000 / 80.000     | 03-19-09 / 03-19-09  |

**Minor Metals**

|                  |                     | change/date assessed |
|------------------|---------------------|----------------------|
| <b>Antimony</b>  |                     |                      |
|                  | cts/lb              |                      |
| MW NY Dealer     | 200.000 / 205.000   | -5.000 / -5.000      |
|                  | \$/mt               |                      |
| 99.65% FOB China | 4300.000 / 4400.000 | 03-19-09 / 03-19-09  |

**Arsenic**

|           |                 | change/date assessed |
|-----------|-----------------|----------------------|
|           | cts/lb          |                      |
| MW Dealer | 57.000 / 63.000 | 03-19-09 / 03-19-09  |

**Bismuth**

|              |               | change/date assessed |
|--------------|---------------|----------------------|
|              | \$/lb         |                      |
| MW NY Dealer | 7.500 / 8.750 | 03-19-09 / 03-19-09  |

**Cadmium**

|                |               | change/date assessed |
|----------------|---------------|----------------------|
|                | \$/lb         |                      |
| MW NY Dealer   | 1.000 / 1.200 | 03-19-09 / 03-19-09  |
| Free Market HG | 1.000 / 1.200 | 03-19-09 / 03-19-09  |

**Indium**

|                              |                   | change/date assessed |
|------------------------------|-------------------|----------------------|
|                              | \$/kg             |                      |
| Producer:US Prod Indium Corp | 500.000           | 03-19-09             |
|                              | \$/kg             |                      |
| MW NY Dealer                 | 320.000 / 380.000 | 03-19-09 / 03-19-09  |
| 99.99% CIF Japan             | 280.000 / 300.000 | 03-17-09 / 03-17-09  |

**Mercury**

|                           |                   | change/date assessed |
|---------------------------|-------------------|----------------------|
|                           | \$/fl             |                      |
| Free Market International | 600.000 / 700.000 | 03-19-09 / 03-19-09  |
| U.S. Domestic             | 600.000 / 700.000 | 03-19-09 / 03-19-09  |

**Rhenium**

|              |                     | change/date assessed  |
|--------------|---------------------|-----------------------|
|              | \$/kg               |                       |
| MW NY Dealer | 7200.000 / 7500.000 | -1050.000 / -1250.000 |

**Selenium**

|              |                 | change/date assessed |
|--------------|-----------------|----------------------|
|              | \$/lb           |                      |
| MW NY Dealer | 19.500 / 22.000 | 03-19-09 / 03-19-09  |

**Light Metals**

**Magnesium**

|                                |                   | change/date assessed |
|--------------------------------|-------------------|----------------------|
|                                | cts/lb            |                      |
| US Die Cast Alloy: Transaction | 245.000 / 275.000 | -5.000 / 03-19-09    |
| MW US Spot Western             | 270.000 / 305.000 | 03-19-09 / 03-19-09  |
| MW US Dealer Import            | 250.000 / 260.000 | 03-19-09 / 03-19-09  |

## Weekly prices

|                              |                     | change/date assessed |                        | change/date assessed                       |
|------------------------------|---------------------|----------------------|------------------------|--|
|                              | \$/mt               |                      |                        |  |
| Europe Free Market           | 2550.000 / 2700.000 | -50.000 / 03-19-09   | Europe Ferrovandium    | 21.000 / 22.500<br>-1.500 / -1.000         |
| Die Cast Alloy FOB China     | 2900.000 / 3000.000 | -100.000 / -100.000  | <b>Manganese</b>       |  |
| 99.8% FOB China              | 2600.000 / 2650.000 | -50.000 / -50.000    |                        | \$/mt                                      |
| <b>Titanium</b>              |                     |                      | 99.7% FOB China        | 2350.000 / 2450.000<br>03-19-09 / 03-19-09 |
|                              | \$/lb               |                      | <b>Molybdenum</b>      |  |
| MW US 70% Ferrotitanium      | 1.900 / 2.100       | -0.200 / -0.100      |                        | \$/lb                                      |
|                              | \$/kg               |                      | MW Dealer Oxide        | 8.300 / 8.500<br>-0.200 / -0.100           |
| Eur. 70% Ferrotitanium       | 2.600 / 2.700       | 03-19-09 / 03-19-09  | Oxide Trans            | 8.300 / 8.500<br>-0.200 / -0.300           |
|                              | \$/lb               |                      | <b>Silicomanganese</b> |  |
| MW US Turning 0.5%           | 0.300 / 0.400       | -0.100 / -0.100      |                        | cts/lb                                     |
| Eur. Turning .5%             | 0.300 / 0.400       | 03-19-09 / 03-19-09  | MW 2% Free Market      | 40.000 / 43.000<br>03-18-09 / -2.000       |
|                              |                     |                      |                        | \$/mt                                      |
| <b>Ferroalloys</b>           |                     |                      | 65% FOB China          | 1200.000 / 1300.000<br>03-19-09 / 03-19-09 |
|                              |                     |                      | Chinese CIF Japan      | 1300.000 / 1400.000<br>03-19-09 / 03-19-09 |
| <b>Cobalt</b>                |                     |                      |                        | Eur/mt                                     |
|                              | \$/lb               |                      | Std 16-20% Si Eur      | 750.000 / 850.000<br>-250.000 / -250.000   |
| MW 99.8% US Spot Cathode     | 15.500 / 16.500     | +2.500 / +2.000      | <b>Silicon</b>         |  |
| 99.8% European               | 15.500 / 16.500     | +3.000 / +2.000      |                        | cts/lb                                     |
| 99.3% Russian                | 14.000 / 15.500     | +2.500 / +2.500      | MW Free Market         | 117.000 / 123.000<br>-5.000 / -2.000       |
| 99.6% Zambian                | 10.500 / 12.000     | +0.500 / 03-19-09    |                        | \$/mt                                      |
| <b>Ferrocrome</b>            |                     |                      | 98.5% FOB China        | 1600.000 / 1650.000<br>03-19-09 / 03-19-09 |
|                              | cts/lb              |                      | Spot CIF Japan         | 1600.000 / 1650.000<br>03-19-09 / 03-19-09 |
| US Charge 50-55%/Impt.       | 69.000 / 75.000     | -6.000 / -4.000      |                        | Eur/mt                                     |
| US 60-65%/Impt.              | 69.000 / 75.000     | -1.000 / -5.000      | 98% Europe             | 2000.000 / 2100.000<br>03-19-09 / 03-19-09 |
| US Low-Carbon 0.05% Imported | 250.000 / 255.000   | -5.000 / -10.000     | <b>Stainless Scrap</b> |  |
| US Low-Carbon 0.10% Imported | 220.000 / 225.000   | 03-18-09 / 03-18-09  |                        | \$/gt                                      |
| US Low C 0.15% Imported      | 219.000 / 224.000   | 03-18-09 / 03-18-09  | NA FREE MKT 18-8       | 1120.000 / 1164.800<br>03-19-09 / 03-19-09 |
| High C 52% Cr Europe         | 75.000 / 85.000     | 03-19-09 / 03-19-09  | <b>Tantalum</b>        |  |
| High Carbon 62% Cr Europe    | 66.000 / 73.000     | -14.000 / -17.000    |                        | \$/lb                                      |
| Low Carbon 0.1% C Europe     | 190.000 / 205.000   | -10.000 / -15.000    | Spot Tantalite Ore     | 37.000 / 42.000<br>03-19-09 / 03-19-09     |
| High Carbon 60% FOB China    | 62.000 / 64.000     | 03-19-09 / 03-19-09  | <b>Tungsten</b>        |  |
| 50-55% Regular CIF Japan     | 87.000              | 03-19-09             |                        | \$/stu                                     |
| 50-55% Spot CIF Japan        | 63.000 / 68.000     | 03-19-09 / 03-19-09  | MW US Spot Ore         | 127.000 / 136.000<br>-27.000 / -27.000     |
| <b>Ferromanganese</b>        |                     |                      | APT-US                 | 158.000 / 167.000<br>-5.000 / -15.000      |
|                              | \$/gt               |                      |                        | \$/mtu                                     |
| MW 78% Mn/Impt.              | 1200.000 / 1250.000 | -50.000 / -75.000    | APT FOB CHINA          | 220.000 / 230.000<br>03-19-09 / 03-19-09   |
|                              | cts/lb              |                      |                        | \$/kg                                      |
| Medium Carbon                | 110.000 / 114.000   | -4.000 / -4.000      | MW Ferrotungsten       | 29.000 / 29.550<br>+2.000 / +0.550         |
|                              | \$/mt               |                      | Ferrotungsten FOB      | 26.000 / 27.000<br>-1.000 / -1.000         |
| High Carbon 75% FOB China    | 1500.000 / 1600.000 | 03-19-09 / 03-19-09  |                        |  |
| <b>Ferromolybdenum</b>       |                     |                      |                        |  |
|                              | \$/lb               |                      |                        |  |
| MW US FeMo                   | 9.200 / 9.300       | -0.200 / -0.400      |                        |  |
|                              | \$/kg               |                      |                        |  |
| MW Europe FeMo               | 20.500 / 21.000     | -0.500 / -0.500      |                        |  |
| FOB CHINA FEMO               | 23.000 / 24.000     | 03-19-09 / 03-19-09  |                        |  |
| Spot CIF Japan               | 21.000 / 23.000     | 03-19-09 / 03-19-09  |                        |  |
| <b>Ferrosilicon</b>          |                     |                      |                        |  |
|                              | cts/lb              |                      |                        |  |
| MW 75% Si Imported           | 60.000 / 62.000     | 03-18-09 / -3.000    |                        |  |
|                              | \$/mt               |                      |                        |  |
| Chinese CIF Japan            | 1150.000 / 1200.000 | 03-19-09 / 03-19-09  |                        |  |
|                              | \$/mt               |                      |                        |  |
| 75% FOB China                | 1080.000 / 1100.000 | 03-19-09 / 03-19-09  |                        |  |
|                              | Eur/mt              |                      |                        |  |
| Standard 75% Si Europe       | 950.000 / 1050.000  | -150.000 / -150.000  |                        |  |
| <b>Ferrovandium</b>          |                     |                      |                        |  |
|                              | \$/lb               |                      |                        |  |
| Free Market V205             | 4.750 / 5.000       | 03-19-09 / 03-19-09  |                        |  |
| US Ferrovandium              | 8.950 / 9.100       | -0.150 / -0.200      |                        |  |
|                              | \$/kg               |                      |                        |  |