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## SANTIAGO 2010: CARPE DIEM – SEIZE THE DAY IN COPPER

What a difference a year makes! Last year the CRU/CESCO Copper conference ended with copper at \$1.85/lb and delegates divided on whether the price rally was indeed real or even sustainable. Was another collapse in the price around the corner? What was going to happen to demand?

Well as luck, a recession and China would have it, the copper price went from strength to strength over 2009 and into 2010 and sailed through \$3.60/lb, whilst we were all debating the outlook of the copper price over the next 12 months. Is \$4.00/lb a possibility now? Or will we see a falling back in the price to levels below \$3.00/lb?

At the end of two busy days of conference presentations, meetings and networking, there was some broad agreement on three issues currently facing the copper market.

Firstly, there is belief in the long-term sustainable consumption growth of copper from emerging countries, in particular China and India.

Secondly, there is desire by miners to invest in copper projects and mines to meet this challenge. However, there was some interesting debate on when these investments would bear fruit given the resurgence of constraints, such as equipment delays, lack of skilled labour etc, on project scheduling and planning. In CRU's experience it is more complicated than just that. You need a portfolio of projects to benchmark, you need to marry this against your strategic objectives, you need to leverage the unique strengths your company will bring to a project and, most importantly, you need to add value for your shareholders/investors/owners.

Thirdly, there is the recognition that the combination of the first two issues are resulting in short-term uncertainty, contributing to the continuing volatility in the copper price and perpetuating the uncertainty on how the longer-term outlook for this metal will play out.

In essence we would suggest that the industry as a whole has three challenges to take away from the conference. Firstly, as an industry, how do we ensure that ALL stakeholders do their utmost to invest in a robust and timely manner? How do we ensure tangible benefits for all stakeholders who want to enter the industry?

Secondly, corporations and individuals must select the right investments to satisfy their risk appetite without overextending their risk tolerance. This will be a difficult balancing act.

And finally, as we now operate in a society that is more risk averse than 12-24 months ago, our third challenge is to ensure that this does not stop the copper industry taking the opportunity to supply the world with the copper it needs.

Decisions need to be made to meet a strong copper consumption forecast by CRU and others over the next 20 to 30 years.

Action is required sooner rather than later to take advantage of the next couple of years of good prices in copper. Real examples of interest are the requests that the CRU Santiago office has received from the local banking and financial institutions on what opportunities there are in copper and how they can best take advantage of these.

*CRU Strategies is the management consultancy division of CRU Group and our team provides client-specific services in areas of valuation, strategy, price-risk management negotiation support and procurement. We have unique and unparalleled access to CRU Group's dedicated analysts on the ground across the six continents.*

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## COPPER PRICE IMPACT ON CHILE FLOWS LIMITED

SANTIAGO, April 8 (Reuters) - High prices for main export copper will have only a very limited impact on dollar inflows in world No. 1 producer Chile, Central Bank President Jose De Gregorio said on Thursday.

"Sometimes in Chile the role of copper (is exaggerated) because copper does not bring in too much inflows," De Gregorio told Reuters Insider in an interview.

"The actual impact of having a higher copper price is very, very limited in terms of what you were asking me about the flows," he added. "There are some effects, but they are very limited."

## CHILE FIN MIN SAYS CONTRACTS WITH MINERS WILL BE RESPECTED IN ANY TAX, ROYALTY ADJUSTMENT

SANTIAGO, April 7 (Reuters) - Chile will respect contracts with mining companies in any adjustments to taxes or royalties as part of a financing mix to fund reconstruction after a devastating earthquake, Finance Minister Felipe Larrain said on Wednesday.

"We will fully respect the institutionality and the legality in their contracts that establish that there is tax invariability. The tax invariability will be maintained," Larrain told Reuters Insider in an interview.

"I'm not saying that nothing will be done with mining, but whatever is a contract will be respected," he added, reiterating similar comments from other government officials.

## AS COPPER PROJECTS REV UP, DEFICIT STILL SEEN

By Jonathan Leff

SANTIAGO, April 8 (Reuters) - It's unanimous: Even with buoyant copper prices reviving major multibillion-dollar copper mine projects that are scheduled to start up in the middle of this decade, there's little chance of a supply glut looming.

After a two-year pause, copper miners are once again embarking on a wave of new projects like Mongolia's Oyu Tolgoi, the Tampakan mine in Philippines and a pair of Peru developments that could deliver a sizable wallop of copper around the 2013 to 2015 period, given normal lead times.

Executives' confidence that this won't create another price-weakening supply-side surge is built not only on a strong faith in the unyielding rise in Chinese demand, but two other factors: the increasingly costly struggle to sustain output at old mines, and the industry's long, well-established track record at failing to deliver major projects on time.

The industry's widely shared consensus that the next few years will be strong was little surprise at the world's biggest copper conference, CRU/CESCO; the equal conviction of strength even three or five years ahead is more unexpected, given the raft of projects now on the cards.

But far from a glut, most analysts and executives looked ahead to years of shortage, or at best a delicate balance, underpinning their belief that prices that have nearly trebled from late-2008 lows could be a permanent market feature.

"The world's copper mines are like little old ladies lying in bed waiting to die. They require these very high copper prices to be kept on oxygen," says Robert Friedland, chief executive of Ivanhoe Mines, whose Oyu Tolgoi is one of the flagship developments of this period, due to yield 450,000 tonnes a year from 2013.

Others cited repeated delays to big projects at a time when new developments are going to be more geologically complex and located in riskier countries than before.

"A bust like ones we've seen in the past doesn't seem likely," said Bart Melek, global commodities strategist at BMO Capital Markets.

## MOVING FORWARD

That major sources of new supply are in the pipeline is undeniable. Ivanhoe and its partners signed the final agreement to proceed with Oyu Tolgoi last week.

Xstrata, the world's No. 4 producer, is among the most ambitious, with plans to expand production by 60 percent to nearly 1.5 million tonnes annually by 2014.

Its Peru projects, Las Bambas and Antapaccaya, which should get the final green light this year or early next, should start up around the end-2013 or early 2014, delivering more than 500,000 tonnes a year of capacity in a concentrated dose.

That's excluding the huge Tampakan development in the Philippines, which could deliver 450,000 tonnes a year, and which Xstrata hopes to execute during the next presidential term that begins this summer - and would end in 2014.

"We see supply continuing to be constrained and that provides us a lot of confidence to invest," said Charlie Sartain, chief of Xstrata Copper.

Analysts largely shared the upbeat view. Mike Jansen, head of metals research at JP Morgan, said deficits could actually grow deeper, not shallower, beyond the middle of the decade.

And the perception of a shortage, at least in the near term, is also helping fuel current price gains as copper market investors look beyond the steady rise in LME inventories to fret about future supply, creating a disconnect between stocks and price, says Max Layton from Macquarie.

## DECLINE

Meanwhile other parts of the industry are investing more just to stand still, and the less-visible decline in existing operations will undercut any new supplies.

BHP Billiton is reviewing whether to push ahead with the full \$7.6 billion Phase V investment in Chile's Escondida mine, which is now expecting to hold production steady after two years of steep declines that cut output by nearly 400,000 tonnes, equivalent to about 2 percent of world demand.

That development would replace an existing concentrator, helping sustain but not necessarily increase production.

In Indonesia, the workhorse Grasberg operation will face a disruptive transition from the current open-pit operation to a more costly underground mine around the middle of this decade, resulting in at least a brief disruption in supply as it shuts down the pit before commencing underground mining.

"We have what we call our valley (in terms of production) and we're looking at ways of expanding these other underground operations or stockpiling to limit it," Richard Adkerson, Chief Executive of operator Freeport McMoRan told Reuters.

While the pessimism over future supply is a compelling argument in its own right, set next to the demand-side story it becomes overwhelming.

"Clearly as the price lines up there will be more people pushing more projects, but...if all the predictions about China and India are even remotely correct, I cannot see how it is going to be easily met by supply," said Andrew Harding, chief of Rio Tinto's copper business.

## IVANHOE EYES GROWTH POTENTIAL AT OYU TOLGOI

SANTIAGO, April 8 (Reuters) - Ivanhoe Mines sees a vast potential to expand existing resources at its flagship Oyu Tolgoi project in southern Mongolia, said Robert Friedland, the head of the Canadian mining company, on Thursday.

Friedland, the founder and executive chairman of Ivanhoe, said the company plans to more than double the worth of its in-situ metal resources to \$1 trillion, from about \$400 billion at present.

"We have about 35 million tonnes of copper and 47 million ounces of gold, we want to push that to 100 million tonnes of copper and 100 million ounces of gold," said Friedland, who delivered the keynote address at the CRU/Cesco copper conference in Santiago.

The \$5 billion Oyu Tolgoi project, which is expected to produce about 1 billion pounds of copper and 500,000 ounces of gold a year when it reaches full production, was finally approved by the Mongolian government in 2009 after years of legal wrangling.

Friedland said the company plans to announce an integrated development plan that outlines future growth prospects at Oyu Tolgoi after its annual shareholder meeting in May.

Ivanhoe, on Tuesday, adopted a shareholder rights plan that the company hopes to pass at its shareholder meeting next month.

## MINERS UNITED ON COPPER, SPLIT ON SPENDING

By Alonso Soto and Teresa Cespedes

SANTIAGO, April 7 (Reuters) - The world's biggest copper miners agreed on a lot on Wednesday: the outlook is bright for a commodity that has rebounded faster than others; China's low per capita consumption shows strong demand ahead; and supply constraints will continue to dog the market for years to come.

But they failed to find common ground on the most important question of all: whether now is the time to throw off last year's restraint and plough ahead with big spending.

That division has important implications for a copper price that has more than doubled over the past 15 months, surging to a post-crisis high above \$8,000 per tonne on April 6.

It is nearly within 10 percent of its record \$8,940 a tonne reached in July 2008, a dramatic recovery unmatched by other assets, brightening the mood in sharp contrast with the lowly prices that cast a gloom over last year's CRU/CESCO event.

Investors seeking signs that miners were rushing to capitalize on those prices by ramping up production and greenlighting new project got instead a mixed picture, one that may keep them pricing in a weaker supply scenario.

Global miners Rio Tinto and Xstrata staked out the most bullish corner, confident they will forge ahead with multibillion dollar projects to ramp up output worldwide as Chinese demand remains strong and signs of recovery emerge elsewhere.

"Largely what I see is that everybody who can produce copper is producing copper, and executing projects," Andrew Harding, Rio Tinto's head of copper division, told Reuters. "My expectations for that are pretty well satisfied that people are doing as much as they can."

Harding said that although Rio Tinto may struggle in the near-term to maintain its annual production rate of 800,000 tonnes as ore qualities decline, it will receive a major boost in 2013 with the \$5 billion Mongolian Oyu Tolgoi project, for which a final investment agreement was sealed last week.

Xstrata Copper Chief Executive Charlie Sartain laid out aggressive plans to expand output by 60 percent to 1.5 million tonnes annually by 2014, spending billions of dollars in mining powerhouse Peru, including its Antamina copper joint venture.

"Over the next four or five years we will be investing around \$14 billion in organic growth," Sartain told Reuters Insider on Wednesday.

## CAUTIONARY TALE

But not all agree that the industry is in top gear.

"Most of the projects that are known to the market require a long-term (copper) price of \$2.20 a lb to move ahead, and the industry is not yet convinced that copper could be at that level in the long run," Antofagasta Minerals Chief Executive Marcelo Awad told Reuters earlier in the week.

While his company invests, he says others are unable to get project financing from banks unwilling to bankroll anything that's not profitable above \$2 a lb -- nearly half current U.S. COMEX futures prices, which stand at more than \$3.50 a lb all the way out to 2012.

Richard Adkerson, chief of the world's No. 2 copper miner Freeport McMoRan, counts himself an optimist, but says he's concerned enough about the U.S. economic recovery to hold off ramping his operations back to full speed.

"We are facing a world where China is very strong and has created a copper price that would justify all of our capital expenditure, but two-thirds of the world's copper markets -- the U.S., Europe and Japan -- remain weak," Freeport's chief executive, told Reuters Insider TV.

"And so, when you have the price supported solely by China, we are just not real comfortable in going all out right now."

Adkerson said Freeport's investment budget for 2010 of \$1.7 billion was up from 2009 but still 30 percent shy of 2008 levels.

BHP Billiton, which operates the world's biggest copper mine Escondida in northern Chile, shared a more cautious view, acknowledging high prices will likely continue down the road.

BHP is thinking of cutting investment in the world's biggest copper mine, Escondida, as they see capital costs rising sharply after the crisis, he said.

The company could cut an expansion project in Escondida to \$2.5 billion, said BHP head of base metals Diego Hernandez, from a previously reported was worth \$5 billion.

Hernandez said he is "happy" with current prices but not yet optimistic.

"The industry's cost structure requires in the higher prices in medium-and-long term because projects now have lower grades and higher costs," Hernandez told reporters. "I think these prices are bit too high."

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## LOOKING FOR NEXT COPPER SUPPLY BOTTLENECK? TRY PEOPLE

By Jonathan Leff

SANTIAGO, April 7 (Reuters) - As copper miners globally rush ahead on projects that were put on hold when prices collapsed, a major potential bottleneck is re-emerging that threatens to slow the delivery of new supply: people.

Executives are now greenlighting multibillion-dollar mines that will be critical for meeting demand from China and other nations returning to growth, but the question for traders is whether or not they will be able to deliver -- on time.

Miners say that while contractors appear to be far better placed than two years ago to meet a rapid surge in demand for things like massive earthmovers and drilling equipment, finding the geologists and skilled personnel needed to develop these vast projects remains a challenge.

"Human resources are as tight as they were" before, says Charlie Sartain, chief executive of Xstrata Copper, the world's fourth-largest producer. In order to pursue both its major Peru developments in quick succession, Xstrata is moving the same team from one site directly to the other, he said.

At the CRU/CESCO conference, the world's biggest copper event, the worry over skilled personnel was one of the few issues that overshadowed an otherwise upbeat gathering, with miner after miner forecasting years of constrained supplies and buoyant Chinese growth -- in effect, high prices.

But there was hope that the pain of two years ago -- when the race to ramp up production in order to supply China caught contractors off guard, delaying projects and helping inflate global prices -- would help ease the strain.

"I've spoken to a number of suppliers and get a very good sense that they have an understanding of their supply chain and their production chain that they didn't have before the rapid increase in demand," Rio Tinto's chief copper executive Andrew Harding told Reuters.

"In many respects the financial crisis has given people a chance to take a breather. They've learnt some stuff, we've learnt some stuff, and...I think people are better prepared the second time around."

Still the strains are already beginning to show.

For the big integrated miners, it's about making priority calls about how and where to deploy their personnel, with easier, cheaper iron ore or bauxite projects threatening to edge out copper, despite prices racing to 20-year highs.

"Fundamentally there are only so many projects you can actually" execute, said Harding. "The limitation is more around how much an organisation can achieve. You can incrementally get larger, but you can't just instantly double the size of your capability really quickly."

Freeport-McMoRan Copper & Gold cut its U.S. work force by 30 percent, but retained most of its skilled work force in an effort to maintain its ability to execute projects, but still fears a pinch that may affect timelines.

"It's a real factor," Freeport's Chief Executive Richard Adkerson told Reuters in an interview. "It will be an issue."

The constraint is magnified in Chile, which supplies about a third of the world's mined copper, which needs to divert resources toward efforts to rebuild infrastructure that was damaged in the massive Feb. 27 earthquake. Although it didn't affect the mines, it may up the pressure on contractors.

Antofagasta Minerals, a Chile-focused copper miner, said that it had given leave for one-third of its workers on two key projects after the quake so that they could help rebuild their homes near the epicentre.

Only half of those returned, the rest finding permanent work and forcing the company to recruit another 400 employees.

"I'm hearing the engineering companies are already flat out and starting to face some problems recruiting in specific areas," Chief Executive Marcelo Awad told Reuters. "It's going to get even worse next year."

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## CHILE CENBANK LIFTS COPPER FORECAST, SEES 2011 DIP

SANTIAGO, April 6 (Reuters) - Chile's central bank raised its 2010 copper price forecast by 15 percent on Tuesday, but expects a slight retreat next year, it said in a key report on economic conditions in the world's top producer of the metal.

The bank raised the average price forecast for this year to \$3.10 per pound (about \$6,834 a tonne) from the previous \$2.70 a lb, it said. That's well behind current prices, which touched a 20-month high of nearly \$3.64 on Tuesday and averaged nearly \$3.30 during the first quarter of the year.

The bank said in the report that it noted a rise in raw material prices, especially in the metals and energy sectors, in recent months.

It also forecast copper prices at \$2.90 lb in 2011.

The bank joined a wave of analysts who have revised upward their price forecasts for this year as copper leads the post-crisis recovery in commodity markets, fueled by China's continued demand and improving economic conditions in developed markets.

In the bank's monetary policy report, it said that the unexpected rise in the price of copper in recent months has come despite the appreciation of the dollar, which typically takes the wind out of commodities prices in general.

It said that estimates of the red metal's supplies in 2010 had been too optimistic.

Cochilco, the state think-tank that typically guides government forecasts on copper, told Reuters this week it was likely to revise upward its current 2010 forecast to \$3.30 lb, versus the current \$3.10 lb level.

Many analysts warn that current price strength may fade in the second part of the year as China applies monetary curbs to avoid overheating its economy and risk-asset plays drop out of favor, although a lack of new supply projects down the road threatens to tighten the market again after next year.

A Reuters poll in January found that London Metal Exchange three-month copper was expected to average \$7,077 a tonne (\$3.21/lb) this year, versus \$5,178 in 2009. On Tuesday prices topped \$8,000 for the first time since the height of the financial crisis.

## XSTRATA JOINS BULLISH COPPER CHOIR ON CHINA

By Teresa Cespedes

SANTIAGO, April 7 (Reuters) - Xstrata Copper's top executive joined his peers on Wednesday in calling for another decade of supply constraint, even as the world's No. 4 producer pushes ahead on major projects in Peru and elsewhere.

While the choir of upbeat voices at this year's Cru/Cesco event is hardly unexpected, given prices at 20-month highs and China's unwavering expansion, it marks a stark reversal from one year ago, when the collapse in copper prices threatened to make all but the lowest-cost projects unviable.

"Over the last 12 months we have seen continued strong demand from China which has more than counterbalanced the significant reduction of copper demand in developed countries," Chief Executive Charlie Sartain told Reuters Insider TV at the CRU/CESCO copper conference in Santiago.

"Over the last five years the industry has struggled to meet demand increases. I see that situation continuing," he said.

Sartain, who heads the copper division of diversified miner Xstrata later told reporters he saw an increase in global copper demand of between 2 and 3 percent in 2010, and laid out the company's aggressive plans to expand output by 60 percent to 1.5 million tonnes annually by 2014.

### FOCUS ON PERU

Projects in Peru, which holds the world's second-largest reserves behind Chile, are a focus, he said.

Sartain said the company expects to boost output at its 275,000 tonne per year Antamina copper joint venture in Peru by 20 to 30 percent starting from 2012.

The Antamina mine, in which Xstrata holds a 33.75 percent stake along with its partners BHP Billiton (33.75 pct), Teck-Cominco Limited (22.5 pct) and Mitsubishi Corporation (10 pct), also produces 165,000 tonnes of zinc annually.

Sartain said Xstrata Copper would also move ahead in September on its option to develop the Las Bambas project in the southern Peru copper belt. The option had been extended from its original deadline last year.

The company is carrying out feasibility and environmental impact studies on the Las Bambas, which should be completed in the coming few months.

Sartain said output was expected to be about 310,000 to 320,000 tonnes a year over the life of the project and 400,000 tonnes per year over the first nine years.

## GFMS SEES 777,000 TONNE COPPER SURPLUS IN 2009

SANTIAGO, April 7 (Reuters) - The global copper market showed a supply surplus of 777,000 tonnes in 2009 due to weak demand from economies outside of China, independent metals analysts GFMS said on Wednesday.

The supply number is more than double the 365,000 tonne surplus estimated last month by the International Copper Study Group (ICSG), which is the main provider of regular data on global copper supply and demand.

The report by GFMS, which has been the benchmark provider of fundamental precious metals data for decades, is the latest effort to bring more transparency to the copper market, an opaque sector made more difficult by uncertainty over stockpiles in China, the world's biggest consumer.

Although GFMS did not make concrete predictions for 2010 and beyond, it did say that the price outlook for copper remained bullish in the long-term -- despite last year's surplus -- due to limited supplies, strong demand from China and India and recovering demand from developed countries.

"The key question here is whether the momentum provided by investment demand will be maintained to a time when an improvement in supply-demand can take over the reins," Neil Buxton, the managing director of Base Metals at GFMS said.

"Developments so far this year suggest that the answer is yes," he added.

The report, which was released during the CRU/CESCO copper week in Santiago, added that copper prices more than doubled over the past year, despite the "lack luster" supply-demand fundamentals.

It attributed the current disconnect between rising prices and slack demand for copper to speculative investments in futures contracts for the metal by funds on the medium-term expectation that supply would remain limited and demand would return more robustly to create a deficit in late 2010.

But GFMS added that the price of copper would likely be volatile in the near term until global demand outside of China recovered sufficiently to reflect the current price levels which were ahead of market fundamentals.

The analyst said global mined output of the metal grew 2.4 percent to 15.8 million tonnes in 2009, led by increased output from Africa and Asia. Refined production rose 0.9 percent last year to 18.4 million tonnes.

GFMS said that global demand for copper posted a limited decline of 1.7 percent last year to 17.6 million tonnes.

That data compares to the ICSG's estimate that world refined copper output last year rose to 18.35 million tonnes, while consumption inched down by a tenth of a percent to 17.99 million tonnes.

## RIO EXEC SEES MEANINGFUL COPPER DEFICIT

By Reese Ewing and Teresa Cespedes

SANTIAGO, April 6 (Reuters) - Miner Rio Tinto expects to see a "meaningful" deficit in global copper supply next year after a balanced market this year, with China likely forced to draw down strategic reserves to help meet demand, the company's top copper division executive said on Tuesday.

Andrew Harding, the mining major's head of copper, told Reuters Insider TV in an interview that even if predictions of demand from China and India proved to be only remotely true, it would be hard for global supplies to meet demand -- and he saw the potential for supply to fall short of expectations.

"Looking at copper supply, I'd say the risk is on the down side," Harding said ahead of the CRU/Cesco copper conference in Santiago.

"When prices go up, everyone does their best to produce as much as they can - we all do. But the reality is it's very hard and there are no obvious signs of any improvement in the supply situation," he went on.



The price of copper has more than doubled over the past 15 months, surging above \$8,000 a tonne on April 6. If the price trend of copper continues, it will soon surpass its record high of \$8,940 a tonne reached in July 2008.

Although the executive saw a fairly balanced supply-demand for copper in 2010, he said the global copper market would face a supply deficit in 2011 due to demand in China and from recovering developed countries such as the United States.

"I can't actually give you a number of what the deficit will be ... but I can say it will be meaningful," Harding said. "And it will be large enough that the strategic reserves that people are holding will be largely consumed."

Harding said that although Rio Tinto's copper output surged almost 15 percent in 2009 to just over 800,000 tonnes, it would likely struggle to maintain production due to declining ore grades until 2013.

He said the improved company output was due primarily to Rio Tinto's Kennecott Utah mine where production rose nearly 30 percent in 2009 with improvements to its concentrator.

Chile's Escondida, the world's largest copper mine where Rio Tinto has a 30 percent stake, also reported a 30 percent increase in copper concentrate in the fourth quarter, after repairs to its SAG mill.

The massive Mongolian Oyu Tolgoi project is due to come on-stream in 2013, sharply reversing any declines in Rio Tinto copper output in the coming years. The project is forecast to put out 450,000 tonnes a year on average over the next three decades.

Rio Tinto has a 22 percent stake in the project, and warrants that will allow it to raise its share to 46.6 percent. It is partners in Oyu Tolgoi with Ivanhoe Mines Inc and the Mongolian government's sovereign fund.

Further into the future, Harding said the company's underground Resolution copper project in Arizona, the largest in North America, is expected to come on-stream around 2019 and to produce copper, gold and molybdenum for decades to come.

**XSTRATA COPPER CEO SEES TIGHT SUPPLY, ROBUST DEMAND**

SANTIAGO, April 7 (Reuters) - The world copper market will continue to experience supply constraints, Charlie Sartain, the chief executive of Xstrata Copper - the subsidiary of diversified mining company Xstrata, said Wednesday.



Sartain added that he saw "very robust" copper demand in the medium term, while speaking at the opening day of speeches of the Cru/Cesco copper conference in Santiago.

**ANGLO AMERICAN EXEC SEES CONSTRAINED GLOBAL COPPER SUPPLY**

April 6 (Reuters) - Anglo American PLC Copper division Chief Executive Officer John MacKenzie told Reuters at the CRU/CESCO conference in Chile: \* Anglo American PLC sees global copper supply constrained for next ten years on shortage of quality projects \* Anglo American top copper exec sees 2010 world copper demand returning to pre-crisis levels, slightly above \* Anglo American says starts to see recovery in US copper demand,

Europe still uncertain \* Anglo American exec says currently prefers developing own copper projects rather than acquisitions \* Anglo American 2010 copper output expected slightly below 2009 levels - exec \* Anglo American says February 27 Chile quake not seen hurting 2010 output target

**FREEMPORT CEO SAYS COPPER DEMAND ELLUSIVE**

By Euan Rocha and Reese Ewing

SANTIAGO, April 7 (Reuters) - The chief executive of Freeport-McMoRan said he is not ready to go all out on expansions until demand has recovered in most of the world, but he remains "enormously enthusiastic" about copper's long-term outlook.

Freeport Chief Executive Richard Adkerson told Reuters on the sidelines of the CRU/CESCO copper conference that the company was moving ahead with strategic plans to extend mine life at its El Abra in Chile and studies to possibly expand operations at the Cerro Verde mine in Peru.

"We are starting to take some steps. We are pursuing some projects that we had deferred," executive said on Wednesday.

But the engaging and affable Adkerson said Freeport's investment budget for 2010 of \$1.7 billion was up from 2009 but still 30 percent shy of 2008 levels because he was still cautious about betting too heavily on demand from China.

"We are facing a world where China is very strong and has created a copper price that would justify all of our capital expenditure, but two-thirds of the world's copper markets -- the U.S., Europe and Japan -- remain weak," he said.

"And so, when you have the price supported solely by China, we are just not real comfortable in going all out right now," he said referring to Freeport's capital expenditures.

Adkerson, who admits he is often one of the most optimistic among his counterparts in major mining companies, stood at the other end of the spectrum at the CRU/CESCO week with his peers in the copper industry tending to be more bullish about investment.



Asked what it would take for him to feel more comfortable about pulling out all the stops in Freeport's capital expenditures, he said: "I think it is really seeing a recovery in the United States. ... When consumers start spending and businesses start investing and employing people, then you get more confident."

**COST INCREASES**

Adkerson said the company was beginning to feel the impact of rising costs as the prices of key inputs have begun to rise steadily.

"We really drove our costs down last year. In 2009, our net unit costs were 55 cents per pound of copper globally," he said. "Part of this was driven by lower input costs, lower energy costs, lower steel costs, lower sulfuric acid costs and some of these input costs are rising."

Adkerson added Freeport was not significantly impacted by the strengthening of commodity currencies like the Chilean Peson, Australian dollar and Canadian dollar.

"It's one of those factors that affects us at the margin, but it is not a major factor," said Adkerson.

Freeport's largest operation is its Grasberg mine in Indonesia and the Indonesian rupiah has not strengthened against the dollar, said Adkerson.

Freeport also has operations spread across Chile, Peru, the United States and the Democratic Republic of Congo.

Adkerson said that a shortage of skilled labor in traditional mining geographies could again become a constraint that stymies the expansion plans of companies within the mining sector.

"I have said to my friends in places like Chile, Indonesia and Peru that it is a tremendous opportunity for their countries, cause those are the countries today, where the mining industry has developed," said Adkerson.

"As we look out into the future with the scaleback of mining in traditional areas like the United States and Canada, this is going to be an opportunity for the technical people in these countries with an emerging mining industry to take global leadership positions."

**CODELCO SEES REFINED COPPER CONSUMPTION UP 5.4 PCT**

SANTIAGO, April 7 (Reuters) - World consumption of refined copper should rise 5.4 percent in 2010 from last year, Jose Pablo Arellano, the chief executive of the world's largest copper miner Codelco, projected on Wednesday.

"The growth that we are experiencing is greater than what we had anticipated last year," the executive of Chile's state copper producer said during the opening of the Cru/Cesco copper conference in Santiago.

**CODELCO SEES SHORT-TERM COPPER VOLATILITY**

By Alonso Soto and Fabian Cambero

SANTIAGO, April 5 (Reuters) - Chile's Codelco's [CODEL.UL] CEO forecast a "slight" surplus of global copper supply this year, at odds with a consensus view of a marginal deficit, but warned volatile prices are in store as financial investors play a bigger role, at times overshadowing fundamentals.

Chief Executive Jose Pablo Arellano also stuck to the company's earlier guidance for a slight increase in output this year from the world's biggest producer, reiterating that the massive earthquake that forced it to briefly halt some mining operations in February would not affect its forecast.

"Slightly higher production this year compared with 2009 is not at risk" due to the earthquake, he told reporters ahead of the CRU/CESCO copper conference in Santiago.

With plans to invest \$2.3 billion this year to offset dwindling output from older mines, Codelco had earlier predicted an increase on the 1.7 million tonnes it produced in 2009, the first annual increase in production in five years.

Arellano based his forecast for a supply surplus on the belief that recovering U.S. and European demand will offset any slowdown from top consumer China. It comes just two weeks after a Reuters poll showed analysts had shifted expectations in favor of a marginal deficit of 23,000 tonnes from January's forecast for a 115,000 tonne surplus.

That's a small fraction of the world's mine supply of 15 million tonnes, but still it marked a measurable shift.

"We hope there will be some synchronization between a possible slowdown in China with strengthening in the rest of the world, particularly the United States and Europe."

**FUNDS VS FUNDAMENTALS?**

For the moment, fundamentals may not be paramount in a market that has rebounded more quickly than other commodities since the financial crisis of 2008. COMEX copper futures settled at a 20-month high above \$3.62 a pound on Monday, nearly triple their low in late 2008.

Echoing the views of many in the market, Arellano said the industry must brace for more years of volatility with the increased participation of financial players.

"Demand and supply of copper ... are not the only ones playing a role," he said. "We have financial investors having an impact in the price. For that reason we are going to expect more volatility than we are used to" in the short to medium term.

On the domestic front, he said he expected the Chilean government to quickly repair the central power grid damaged by a Feb. 27 quake that killed hundreds of people and destroyed roads, bridges and buildings.

Faults in the country's main power grid led to a massive blackout in mid March that forced several Codelco copper mines to slow operations briefly.

Arellano said the current hike in copper prices was due to continued strong demand from Asia.

He said financial investors are likely to be a permanent fixture in copper markets, but fundamentals will still drive prices in the long term.

### CHILE'S COCHILCO SAYS LIKELY TO RAISE 2010 AVERAGE COPPER PRICE FCAST TO \$3.30 LB FROM \$3.10

By Fabian Andres Cambero

SANTIAGO, April 5 (Reuters) - Chile's state copper think-tank will likely raise its 2010 average copper price outlook by about 6.5 percent to \$3.30 lb thanks to strong demand from top consumer China and as developed economies gradually recover from the global financial crisis.

Although Cochilco, or the Chilean Copper Commission, says prices are likely to soften later this year as China draws down inventories, a reluctance among miners to restart projects that were shelved during the collapse in prices should help markets resume their rally through 2011 and into 2012.

"We are probably going to upwardly revise the forecast we made in January from around \$3.10 lb to around \$3.30 lb," Ana Isabel Zuniga, head of research at Cochilco, told Reuters in an interview ahead of the CRU/CESCO copper conference in Santiago.

However she warned that copper's latest rally to 20-month highs last week -- within about 70 cents a pound from their all-time peaks in mid-2008 -- would be hard to sustain.

"We think China's apparent demand should fall, though not in terms of actual consumption, because they should use up part of the inventories built up over the last year," she said.

Zuniga sees room for continued strong copper demand by industrial sectors in China for much of the rest of the decade, but says the risk of a slowdown in demand as the major consumer seeks to avoid overheating remains one of the main risks for commodity markets.

Other risks ahead include the specter of labor disputes or stoppages which have prompted analysts to revise down their output forecasts over the past 3-4 years.

However supply tightness should help underpin prices for now.

"We see a tighter market in 2011 than in 2010, so prices next year should be higher," Zuniga said, adding prices should remain strong going into 2012.

The global financial crisis triggered a slump in demand for commodities, which hit the profitability of many mining projects and slammed the brakes on some new ventures, which miners are now starting to look at again as prices rebound.

Cochilco has tallied investments and projects totaling \$43 billion from 2008 through to 2020, with around \$5 billion a year earmarked for 2010 through 2012.

### ANTOFAGASTA SEES REKO DIQ UP IN 2015 DESPITE TENSIONS

SANTIAGO, April 7 (Reuters) - Antofagasta Minerals is confident to start producing copper at its Reko Diq mine in Pakistan by 2015 despite some friction with local authorities who oppose development of the mine, the company's CEO Marcelo Awad said on Wednesday.

Despite some opposition by the regional government of the southwestern province of Baluchistan, the national Pakistani government is keen to see the project through, Awad told Reuters Insider on the sidelines of the CESCO/CRU copper conference in Santiago.

"There were a lot of rumors and a lot of negative press earlier this year, but that was a misunderstanding of a cabinet resolution of the Baluchistan province ... we've met the chief minister and he's still very supportive to see the project up and running," Awad said.



A provincial government official told Reuters in January the project may be canceled, but Awad later said that view was held by a small minority pressing for independence of the southwestern province of Baluchistan.

He said that regardless of the friction with Baluchistan officials Antofagasta hopes to bring the Reko Diq mine on stream in 2015.

Antofagasta and Canada's Barrick Gold Corp each have a 37.5 percent stake in the project, with the provincial government holding the remaining 25 percent.

"We're at this moment finalizing the feasibility study and the impact environmental assessment. We plan to apply for a mining license to the Paluchistan Province government during the middle of this year," he said.

London-listed Antofagasta expects Reko Diq to produce by itself roughly as much as the whole group churns out currently.

Antofagasta produced 442,500 tonnes of copper last year and expected production of 540,000 tonnes in 2010 due to the expansion of its flagship Los Pelambres mine in Chile.

Based on 2008 production figures, a move to 1 million tonnes would make Antofagasta the world's fourth-biggest copper producer.

### TECK BEGINS RAMPING UP ANDACOLLO OUTPUT

By Euan Rocha

SANTIAGO, April 7 (Reuters) - Teck Resources has begun to ramp up production from the copper concentrator project at its Carmen de Andacollo mine in Chile and expects its first concentrate shipment in two weeks, a top company executive said on Wednesday.

"The Andacollo expansion is operating now. Our target ramp-up is the end of the third quarter. Our first shipment of concentrate will leave the port of Coquimbo on April 20," Roger Higgins, the head of Teck's copper business, told Reuters along the sidelines of the CESCO/CRU conference in Santiago.

The Andacollo mine, located near the southern end of the Atacama Desert, is transitioning from copper cathode production to producing copper in concentrate, a move that will help quadruple copper production from the mine.

The new plant is expected to produce 80,000 tonnes of copper and 55,000 ounces of gold in concentrate annually over the first 10 years of the operation.

In January, Teck completed the sale of an interest in future gold production at Andacollo to Royal Gold. Royal Gold will get 75 percent of the payable gold produced from the mine until total production reaches 910,000 ounces, and 50 percent thereafter.

Higgins said Teck is doing a prefeasibility study to look at the possibility of moving from cathode production to concentrate production at its Quebrada Blanca mine in northern Chile.

This move would raise copper output at Quebrada Blanca from about 80,000 tonnes a year to about 200,000 tonnes, Higgins said.

Higgins said this plan was still contingent on board approval. Construction, if approved, would likely not begin until 2012.

The conversion at Andacollo is expected to cost Teck about C\$485 million, including the cost of a pipeline to secure water supply.

### ESCONDIDA COPPER OUTPUT STEADIES AFTER DIVE

SANTIAGO, April 7 (Reuters) - The Escondida mine, the largest copper mine in the world, will manage to keep production steady this year after two years of sharp decline, a BHP Billiton executive said on Wednesday.

Output at Escondida, which produces about 6 percent of global copper supply, has been a source of concern for several years, with production falling sharply in both 2008 and 2009 due to disruptions as well as deteriorating ore quality.

The mine should produce around 1.08 million tonnes of the red metal in 2010, and between 1.05 million and 1.1 million tonnes annually from 2010 to 2012, Diego Hernandez, the Base Metals President of operator BHP Billiton, told reporters on the sidelines of the Cusco/CRU copper conference.

He said that copper prices are likely to go up in the near future due to tighter supplies and because companies are extracting copper of lower grades. "We've got an optimistic view in the medium and long term. (Looking) at the short term we're glad ... because the prices are quite good," Hernandez said.

"It's hard to say to what extent (investment) funds influence the price in the short term. We hope prices won't stumble, but if it happens it would be for a limited period of time and in the medium and long term we should have higher prices."

He said the copper industry needs higher prices because the projects under development will extract copper of lower grades and therefore will have higher costs. The mining executive said BHP Billiton is considering reducing its investment budget for Escondida.

"We'll make a decision regarding investment at end 2011 or beginning 2012," he said.

Output at Escondida, which is majority-owned by diversified miner BHP Billiton, fell slightly over 12 percent in 2009 to 1.103 million tonnes from 1.255 million tonnes in 2008.

### XSTRATA SEEKS TO SYNC TAMPAKAN WITH PHILIPPINES VOTE

SANTIAGO, April 7 (Reuters) - Xstrata hopes to develop its massive, long-stalled Tampakan copper-gold mine in the Philippines during the term of the next president, due to be elected next month, a senior executive said Wednesday.

With a feasibility study on the estimated \$5.2 billion project now complete, Xstrata Copper will begin addressing the environmental and other risks attached to a deposit that was discovered some two decades ago, but has failed to move forward due to local issues, including attacks by Communist insurgents.

"We will be submitting the feasibility study to the government next week," Charlie Sartain, the chief executive of Xstrata Copper, said at the Cru/Cesco conference in Chile. "Having the development timeline aligned with the political mandate could be important for the project."

Company officials have said that Tampakan, which was discovered in 1991, could begin production by 2016, although the desire to push through the development under consistent political leadership plus soaring copper prices may suggest a tighter timeframe. The presidential term is four years.

Sartain did not provide any further details on the development, which would add to more advanced projects that Xstrata expects to increase its copper production by 60 percent to nearly 1.5 million tonnes a year by the end of 2014.

He also said Xstrata, the world's fourth-largest copper producer, had several other greenfield projects that could add another 700,000 tonnes per year. Tampakan alone could produce an estimated 350,000 to 450,000 tonnes a year.

The Tampakan mine in the southern Mindanao island has an estimated resource of 2.2 billion tonnes, containing 12.8 million tonnes of copper and 15.2 million ounces of gold at a 0.3 percent copper cut-off grade.

Presidential race front-runner Benigno "Noynoy" Aquino, who is hoping the wide support and popularity of his late mother would translate to votes, has vowed to fight corruption and restore good governance. As of the last polls he has widened his lead against his nearest rivals in the May 10 vote.

### XSTRATA TO BOOST PERU COPPER OUTPUT

SANTIAGO, April 7 (Reuters) - The copper division of diversified mining company Xstrata is moving ahead with expanding output of the red metal from its Peruvian assets, Chief executive of Xstrata Copper Charlie Sartain said on Wednesday.

Speaking with reporters at the Cru/Cesco copper conference in Santiago, Sartain said that the company expects to boost output at its 275,000-tonne/yr Antamina copper joint venture in Peru by 20 to 30 percent starting from 2012.

The Antamina mine, in which Xstrata holds a 33.75 percent stake along with its partners BHP Billiton (33.75 pct), Teck-Cominco Limited (22.5 pct) and Mitsubishi Corporation (10 pct), also produces 165,000 tonnes of zinc annually.

Sartain said that Xstrata Copper would also likely move ahead in September on its option to develop the Las Bambas project in the southern Peru copper belt. The option had been extended from its original deadline last year.

The company is completing feasibility and environmental impact studies on the Las Bambas which should be completed in the coming few months. Sartain said output was expected to be about 310,000 to 320,000 tonnes a year from the project.

### BHP SEES ESCONDIDA OUTPUT AT 1.08MN TONNES IN 2010

SANTIAGO, April 7 (Reuters) - The Escondida mine, the largest copper mine in the world, will produce around 1.08 million tonnes of the red metal in 2010, a BHP Billiton executive told reporters on Wednesday.

Diego Hernandez the Base Metals President of BHP Billiton also said that Escondida will produce between 1.05 million tonnes and 1.1 million tonnes annually from 2010 to 2012.

## ANGLO TO RESUME PERU COPPER PROJECT

By Teresa Cespedes

SANTIAGO, April 6 (Reuters) - Global miner Anglo American will resume the development plan for its Michiquillay copper project in Peru this year, despite resistance from nearby communities, the company said on Tuesday.

Anglo American, the world's No.4 diversified miner, won the concession for Michiquillay in the northern Cajamarca region in 2007, and the project will require an investment of \$700 million.

But the project, which is seen producing some 300,000 tonnes a year of the red metal once operational, has been delayed in recent years by protests by communities who fear environmental pollution and have made social demands.

"Michiquillay is advancing at its own pace. It has been a bit slower because of problems... with communities which have rejected the exploration," Vicente Irazazaval, vice president of exploration at Anglo American, told Reuters in an interview at the CRU/CESCO conference.

"This year for sure, soon, we will resume (drilling)," he added. He said the company had drilled 20,000 meters in total so far, and that for the project to reach the feasibility study stage, it would have to drill around 100,000 meters in total.

Communities in northern Peru have mounted protests against several projects, including Zijin Mining Group's Rio Blanco project, where attackers torched a camp late last year.

Peru is the world's No. 2 producer of copper and zinc, and the mining sector is the economy's engine.

"At the moment we are defining some issues which have not yet been cleared up with the communities to resume the project, but we maintain our plans. It is the same concession contract," Irazazaval said.

"The problems with the communities clearly are an issue, they take up time, but we are still within the timelines to move the project forward," he added.

Anglo American is also developing the Quellaveco copper project in southern Peru, which could produce some 225,000 tonnes a year of copper. It sees capital expenditures of between \$2.5 billion to \$3 billion for that project.

## SOUTHERN COPPER TO SELL UP TO \$1.5 BLN IN DEBT

By Teresa Cespedes

SANTIAGO, April 7 (Reuters)- Southern Copper is considering issuing bonds worth between \$500 million and \$1.5 billion before the end of April, the company's Chief Executive Oscar Gonzalez told Reuters on Wednesday.

"We're considering the possibility of issuing between \$500 million and \$1.5 billion in bonds with a maturity of 10 to 30 years ... for expansions of (mines) in Peru and Mexico," Gonzalez said on the sidelines of the CESCO/CRU copper conference.

He said the debt issue would take place before the end of April and that most bonds will have 30-year maturity.

The mining executive also said that Southern Copper, one of the world's top copper miners, and a unit of Grupo Mexico, sees copper output stable at around 500,000 tonnes.

"The grades (of the copper) we're extracting from Toquepala and Cuajone has lowered. That's going to reduce our output in Peru from 355,000 tonnes last year to some 345,000," he said.

He said the company's Cananea mine in Mexico, which has been hit by a strike for the past two years, should be producing again before the end of 2010.

"Once they give us the mine back and we remove those that are blocking the entry is going to take us about three months to start producing something because there is damage to repair and we've got to hire people," he said.

"Our idea is to fire everyone (and) to then higher back hard-working employees that are not problematic," he said.

Historically Cananea has produced some 20 percent of the company's copper output.

Gonzalez said he sees copper prices remaining high at an average of \$3.25 per lb in 2010, fueled by strong demand from China and demand for the red metal from the United States increasing, although slowly.

Copper prices more than doubled in 2009 and rose another 6 percent in the first quarter of 2010.

Copper for May delivery closed down 1.95 cents at \$3.5975 per lb on the NYMEX's COMEX division on Wednesday.

## CHILE CODELCO CEO SAYS TO STEP UP INVESTMENT

SANTIAGO, April 7 (Reuters) - The world's top copper producer, Chile's Codelco, will step on the accelerator to invest \$3 billion a year for the next five years to beat years of dwindling output, chief executive Jose Pablo Arellano said Wednesday while at the Cru/Cesco copper conference.

Arellano said the company had a positive view on copper prices that are near pre-crisis highs as demand from top consumer China remains strong and some producers see recovery in the United States.

He said the company will go ahead with plans to investment \$2.3 billion in 2010 via a mix of financing like reinvestment of profits and issuance of debt. He said the company was likely to reinvest under \$1 billion in profits this year.

Arellano later told Reuters Insider the company expects to increase output slightly in 2010 from its 2009 levels.

"Yes, we are going to hit another record (output)," Arellano said. He added that he saw not changes in investment this year even as Chile scrambles to seek funds to pay for the reconstruction of towns and industries destroyed by a massive Feb. 27 earthquake.

He said world consumption of refined copper should rise 5.4 percent in 2010 from last year.

## ANGLO COPPER CEO: TIME TO MINE, NOT TO BUY

By Alonso Soto and Fabian Cambero

SANTIAGO, April 6 (Reuters) - Anglo American warned on Tuesday that global copper supply could be constrained for the next decade, with miners struggling to squeeze more metal out of declining grades and a shortage of quality projects.

John MacKenzie, the head of the company's copper division, also said the company was focused on delivering the projects it has on hand rather than hunting for takeovers.

"At this stage we have a fantastic project pipeline and we can create more value through developing that project pipeline that we could through acquisitions," he told Reuters at the CRU/CESCO conference in the Chilean capital Santiago.

MacKenzie and many of his peers believe the copper market is headed for tight times ahead as expanding Chinese demand and a recovery in developed markets run up against a mining industry that is being forced to invest more funds into ensuring that existing reserves continue to deliver.

"Future copper supply seems to us to be relatively constrained for a number of reasons; a shortage of quality projects, declining grades in the industry," he said.

"I will say that for the next ten years we are talking of a relatively constrain market"

"It is not as if there is a shortage of copper in the world, it's really a question about what price do you need to incentive bringing on that additional copper production which is at greater depth and lower grades than what is being mined today."

He also said that global demand would probably recover this year to pre-crisis levels, with brighter prospects in the U.S. market as automobile sales recover whereas European demand was more of a mixed picture. For Anglo American itself, he said the Feb. 27 earthquake in Chile had not affected the companies output target, which was likely to mean a slight dip in production versus 2009 when the London-listed company produced 669,800 tonnes. .

## CHILE MINE GROUP HEAD PLAYS DOWN ROYALTY WOE

By [Alonso Soto](#)

SANTIAGO, April 6 (Reuters) - The head of Chile's top mining trade group played down concerns that government debate over an increase in the mining royalty could discourage investment in the world's top copper producer.

Chile is mulling an increase in the royalties -- possibly up to 8 percent from the current 5 percent, according to one advisor -- to help fund the reconstruction of towns and industries ravaged by a massive Feb. 27 quake that killed hundreds of people and left damages estimated at \$30 billion.

While officials have sought to reassure investors that the measure would be temporary and that it wouldn't contravene existing contracts, it has nonetheless unsettled executives in an industry that is Chile's biggest export earner.

"It is clear from their (government) comments that any tax hike would be temporary," Francisco Costabal, the president of the country's mining council, said on the sidelines of the CRU/Cesco copper conference in Santiago.

"We have good prices and good demand for our products ... if there is demand projects will move ahead," he said.

Speaking earlier, Mining Minister Laurence Golborne repeated that a final decision on the discussion rested with President Sebastian Pinera, and that in any event it would not affect companies that already have contracts in place.

"It's a sterile discussion, to talk about whether or not we are going to change the royalty tax. We could change it and the impact that would have on (mining companies) would be nil," he said, adding the government needs to come up with a "creative" way to fund reconstruction efforts.

In an interview with Reuters on Monday Golborne said that an eventual raise in mining royalties will not hurt the revenue of mining companies already operating in Chile because the contracts they have with the state are "invariable" regarding taxes.

## METALS EXPLORATION SPENDING SET TO JUMP IN 2010--MEG

By [Euan Rocha](#)

SANTIAGO, April 6 (Reuters) - Exploration spending by miners worldwide will jump sharply this year as metals prices rally and financing improves, reversing last year's slump, and a growing share will be spent on gold, according to a senior analyst at the Metals Economics Group (MEG).

In a global study of 2009 spending it released last month, MEG found that companies had slashed their exploration budgets by more than 40 percent to \$7.32 billion last year, the biggest one-year decline in two decades, as prices collapsed and junior miners cut spending as financing 614ed up.

But the junior league is expected to lead the recovery this year as commodities rebound. Gold at \$1,125 an ounce remains well above its historical average, while copper vaulted to a 20-month peak above \$8,000 a tonne on Tuesday.

"Unless we get a major drop in metals prices by mid-year, we are expecting a 30 to 40 percent increase in (exploration) spending this year, from 2009 levels," said Jason Goulden, vice president of research at MEG, an industry consultancy group.

The group's 2009 study accounted for more than 95 percent of worldwide non-ferrous exploration spending in 2009, it said.

## GOLD DOMINATES

Gold has traditionally accounted for the vast majority of global exploration spending in the mining sector and looks set to retain the title in 2010.

Roughly 48 percent of global exploration spending went toward gold in 2009. Goulden expects this trend to continue this year.

"Given the strength of the gold price ... we expect that gold will pick up a little more share this year. Whether it reaches 50 (percent), or the low 50 (percent) range is still uncertain," said Goulden.

Base metals typically account for the second largest chunk of exploration spending, with 36 percent of the outlay going toward this segment in 2009. The majority of the spending on the base metals side is focused on copper exploration.

## JUNIORS REBOUND

Exploration companies that are almost entirely dependent on equity financings to fund their growth were the hardest hit amid the downturn and slashed spending in a bid to survive the recession.

However, a recovery in the price of metals led to a slew of equity financings at the end of 2009 and this is likely to allow juniors to restart explorations activities that had earlier been halted.

Juniors typically account for the majority of global exploration spending every year, but were outshone by the mining majors in 2009.

Goulden expects the juniors will once again account for the majority of global exploration spending in 2010.

"Last year the juniors accounted for the largest share of the overall decline in exploration spending, but we expect that to swing in the opposite direction this year," he said.

## CHILE DEBATING ROYALTY RISE, TO HONOR DEALS

By [Eduardo Garcia](#) and [Fabian Cambero](#)

SANTIAGO, April 5 (Reuters) - Chile's mining minister on Monday reiterated his pledge to respect existing contracts as the world's biggest copper producer considers increasing royalties in order to fund post-quake reconstruction.

In an effort to allay fears among miners who worried that a rise in the 5 percent royalty rate could erode profits in an industry still leery of making new investments, Mining Minister Laurence Golborne told Reuters the contracts were inviolate, but avoided any detailed comments on the subject.

"Any solution that we envision in this regard will take into consideration these contracts and the country will obviously respect all the agreements that we have," Golborne told Reuters ahead of the CRU/Cesco copper conference in Santiago. He declined further comment on the royalties issue or when the government might make a final decision. It is reported to be considering a rise to 8 percent.

While Chile is considering a number of measures to help finance the multibillion-dollar reconstruction effort following February's massive 8.8-magnitude quake, many executives say privately they believe it is unlikely to risk investor ire or trigger contractual disputes by raising the royalty rate.

Golborne said the government would consult with private investors before taking any decision that could affect the mining sector.

Chile extracts around 30 percent of the copper mined in the world, and its investment policies can have a material impact on the supply outlook for a market still straining to meet rapidly rising Chinese demand.

Golborne also provided a fresh forecast for nationwide production, expected to rise around 3 percent this year after a small 0.8 percent climb in 2009.

Although he did not give a specific level or comparison to previous government estimates, the growth rates suggests a slower rise than that forecast by state think-tank Cochilco, which in January predicted a 7.3 percent rise in the country's copper production for 2010.

In terms of market dynamics, Golborne expressed hope that an increase in U.S. consumer demand would lead to higher demand for copper from China and push prices for the red metal up.

"An increase in (copper) prices will be explained by real demand ... While the world (economy) grows, and we see the United States recovering slowly and Europe stable, we see an increase in the need for copper," he said.

"A great deal of the goods produced in China are exported to Europe and the United States ... As long as U.S. consumers go back to consuming slightly more, that will fuel economic activity, back in the (supply) chain," he said.

## MINER ANTOFAGASTA SETS PACE WITH BIG SPENDING PLANS

By Alonso Soto and Fabian Cambero

SANTIAGO, April 5 (Reuters) - Antofagasta Minerals stood apart last year by spending through the collapse in commodity markets. Now it's set to stay ahead and ramp up investment even as rivals fret about the sustainability of near-record copper prices.

Predicting that prices will remain within sight of their 2008 peak through part of this year, Chief Executive Marcelo Awad says the mid-tier global copper miner could invest up to \$7 billion in new projects over the next 10 years, even after several of its biggest projects come to fruition.

In an industry that has been whipsawed by copper's dive below \$1.30 a lb at the end of 2008 and its subsequent rally to last Thursday's 20-month high of near \$3.60 a lb, Awad's confidence is a relatively rare commodity.

"This price level allow us to keep dreaming of materializing projects that we have on our portfolio," he told Reuters ahead of the CRU/CESCO mining conference in Santiago, where copper executives from around the world will look for signs that current prices could be sustainable.

Awad said copper prices are likely to hover close to \$8,000 a tonne or \$3.62 a lb until mid-year, and expects prices to average \$3.30 a lb (\$7,275 a tonne) in 2010, refining his forecast from March for prices to average above \$3 a lb.

For the moment, part of copper's buoyancy is due to a reluctance to increase spending by some of Awad's rivals.

Awad said that unlike some of its peers, Antofagasta found itself with plenty of cash and little debt when the crisis dragged down copper prices from historic highs in 2008, allowing the company to forge ahead with investments.

"There is a short-term risk that supply stays limited because there is little investment in the sector," Awad said. "Most of the projects that are known to the market require a long-term (copper) price of \$2.20 a lb to move ahead, and the industry is not yet convinced that copper could be at that level in the long run."

Many are under increasing pressure from rising labor and machinery costs plus extra spending linked to tougher environmental regulation across the world, Awad said.

"We are finding that we need to spend more, meaning that the initial investment is bigger now than what is used to be two years ago," he said.

Antofagasta, a London-listed company that started as a railway company in Chile's arid north, is looking ahead as it nears the completion of its Esperanza and Los Pelambres projects, which together are expected to lift output to 700,000 tonnes per year (tpy) by 2011

### BUYING UP TO 1 MLN TPY

Beyond those projects, Antofagasta aims to hit 1 million tonnes a year by 2015 via takeovers of early development stage projects, although Awad said he may also look at producing mines.

"In accordance with our policy, when it comes to projects in early stages, yes, we will continue those investments this year," said Awad. "When it comes to the purchase of projects in more advanced stages, we are analyzing alternatives."

He said the company favors partners with mining expertise instead of more passive, financial associates.

He said investment funds have consolidated their participation in copper markets over the last decade, and he sees their share of daily transactions at between 15 and 20 percent as investors ponder over the future of prices.

Unstable power supply to its biggest mine, Los Pelambres, in north-central Chile after a massive Feb. 27 earthquake hit Chile's main grid is not seen as a risk to output, Awad said.

"We have the impression that measures were taken and we hope there are no (energy) problems," Awad said.

## EXETER EXEC SAYS CO TALKING TO BUYERS; COMPANY DENIES

By Euan Rocha

SANTIAGO, April 6 (Reuters) - A senior Exeter Resource Corp executive said on Tuesday that the company is in talks with a number of possible investors interested in its flagship Caspiche project in Chile, but a company lawyer said the junior miner is not in deal mode or active discussions.

Exeter has recently spun off its other Argentinian project to focus on the major gold-copper-silver development in Chile, one that analysts expect other companies to seek an interest in.

Asked whether the company was looking to sell the project or the company itself, Exeter's chief geologist Glen Van Kerkvoort told Reuters: "This is what we have set it up for and this is why we have split the company. It's working toward a takeover of Exeter. You don't want to sell the project, that has tax implications."

He later added: "There are lots of groups interested. We have confidentiality agreements signed with Newmont, Barrick, Kinross and a couple of Chinese groups."

But Louis Montpellier, Exeter's legal counsel, later told Reuters: "The company is not in active discussions with anybody about the sale of the project or the company itself."

"If the company ... entered into confidentiality agreements with any third party it couldn't comment on that fact."

He said the company was looking at putting out some "economic parameters" related to the project later in the year, but had not made any major decisions about its future.

He also said it was routine practice in the industry for mining companies to share data about major projects.

Exeter has the option to earn 100 percent of Caspiche from Anglo American. Exeter has now met all the required commitments to exercise this option.

The Caspiche project is located in the Maricunga Belt of Chile, between Barrick and Kinross Gold's Cerro Casale gold-copper deposit 10 kilometres to the south and Kinross Gold's Maricunga Mine 15 kilometres to the north.

Caspiche is a gold-copper porphyry system, a type of deposit common to many of the world's largest open pit gold-copper mines.

In a recent note to clients, Canaccord analyst Wendell Zerb said, "Caspiche represents one of the largest Au-Cu-Ag assets discovered in the last decade and its significance should draw the attention of numerous interested parties."

**PROJECT UNDERVALUED**

Kerkvoort contends that Exeter is significantly undervalued at this time.

"This is a fantastic project and the share price is too low at the moment. As soon as a firm over comes in you will see a reaction in the share price," he said.

Kerkvoort said recent deals for the El Morro and Cerro Casale projects assigned significantly higher values to those assets than the value Exeter is getting for its gold resources on a per-ounce basis.

"We see a lot of potential to increase value for our shareholders, potentially threefold, but certainly twofold," said Kerkvoort, while speaking on the sidelines of the Cesco/CRU copper conference in Santiago.

Exeter's shares were up 30 Canadian cents, or 4.5 percent at C\$6.98 in early trade on Tuesday, after the company updated its resource estimate for Caspiche showing a 23 percent increase in gold content over its prior estimate.

The company's shares ended the day up 60 Canadian cents at C\$7.28 on the Toronto Stock Exchange.

**AS COPPER NEARS RECORD PEAK, EXECS TO ASK 'HOW HIGH'**

By Alonso Soto and Fabian Cambero

EL TENIENTE MINE, Chile, April 1 (Reuters) - Here at the world's biggest underground mine, Chile's state mining enterprise Codelco plans to spend tens of millions of dollars to extend the life of a century-old operation.

Inside the dark, humid tunnels that extend for nearly 2,400 Km (1,490 miles) into the bowels of the Andes mountains in central Chile, miners are digging deeper to tap fresh resources as copper prices race to within sight of 2008's record highs, leading the post-crisis recovery in commodity prices.

But with high-quality ores harder to produce and some new projects hindered by politics, executives gathering at next week's annual CRU/CESCO conference have yet to commit to a fresh wave of massive spending -- fearful that today's gains, as those in 2008, may prove all too fleeting.

While some companies have already started to revive projects that were put on ice during the worst of the crisis, worries over the strength of top consumer China's appetite for copper and the pace of the global economic recovery has kept spending limited -- for now.

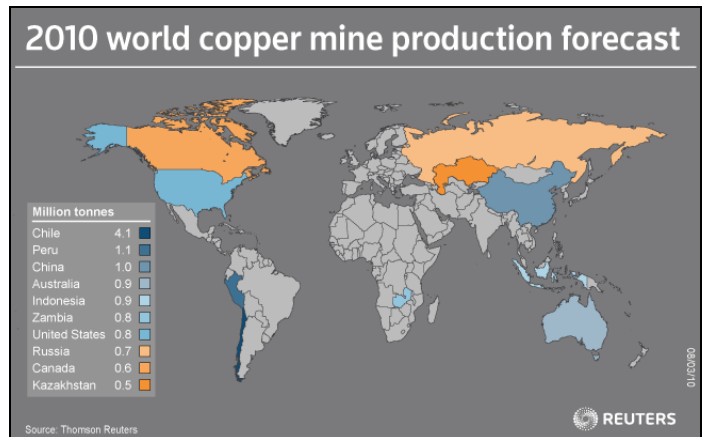
"One of the things people will probably be discussing is really the sustainability of current price levels, which is actually quite high," said Patricia Mohr, vice president of economics at Scotiabank Group in Toronto.

The question they will be asking: Is \$8,000 a tonne, high enough to make most operations profitable in the long run, the new norm? According to industry sources in Chile, which supplies a third of the world's supply, that answer is far from certain.

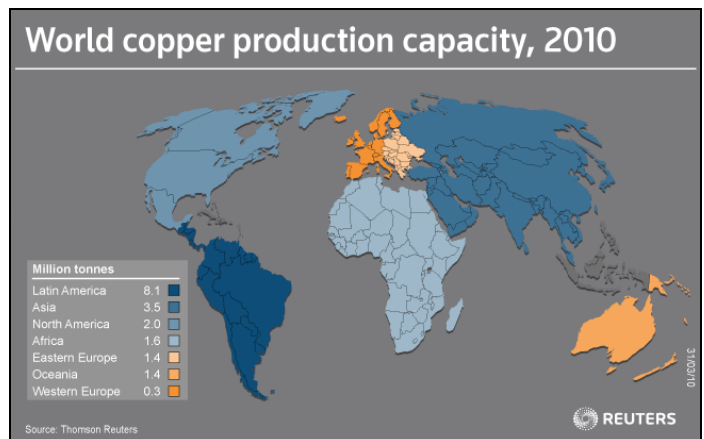
"We are happy with prices, there is no question about that, but how long will those happy days last? We need to think carefully about how much to spend," said a foreign mining executive in Santiago.

Increased optimism among market players ahead of next week's CRU/CESCO mining conference, the world's biggest copper gathering, contrasts with jitters during last year's meeting as prices collapsed amid the global financial meltdown.

Copper has risen sharply, hitting 20-month highs of \$7,939.75 a tonne on Thursday as market sentiment improved, sparking fears of a price correction as fundamentals remain weak. The benchmark COMEX May copper contract also hit a 20-month high on Thursday of around \$3.60 per lb.



But even if prices falter, most experts see them staying far above the lows seen in late 2008 when prices hit \$1.25 a lb as the world plunged into recession.



The value of the metal used to make cars and build homes saw an outstanding comeback of 139 percent last year as massive stimulus packages boosted hopes of a solid economic recovery.

Global miner BHP Billiton is studying whether to revive key projects in top producer Chile, but has said it could lower an original price tag of \$7.6 billion.

Juan Carlos Guajardo, head of the influential Santiago-based CESCO copper think tank, urged more, saying companies are being too timid in getting into the action as Chinese consumption stays strong.

"Companies should take advantage of China's rapid growth in consumption, which should be a sign that the previous paradigm of cyclical prices has been left far behind," said Guajardo. "If companies continue with the old paradigm, we will continue to see a tight market in coming years."

**CODELCO SPENDS, RISKS LOOM**

Codelco, the world's No. 1 copper miner, is likely to continue to spend heavily even as the Chilean government scrambles to raise billions of dollars to rebuild towns and industries battered by a massive Feb. 27 quake.

The state giant will boost investment to \$2.3 billion this year and expects to slightly increase output from near record highs of 1.7 million tonnes in 2009.

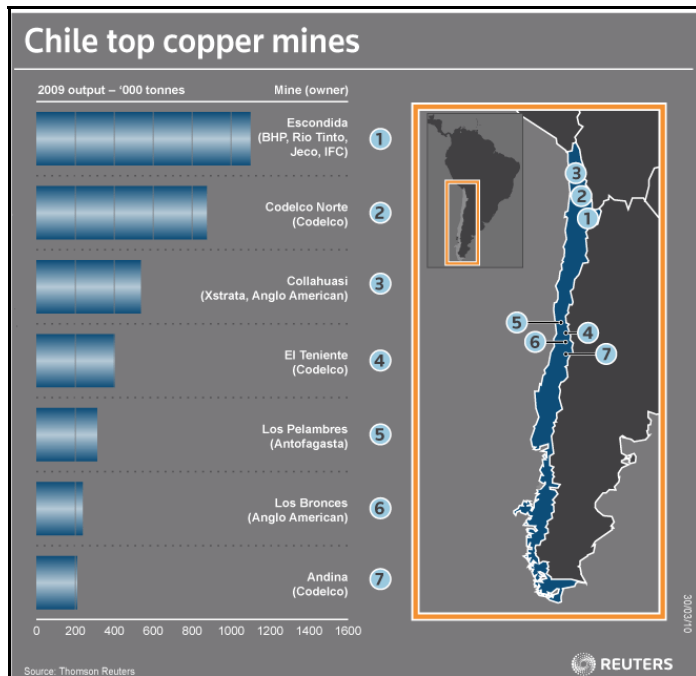
For miners elsewhere, political risk at new exploration sites across the world could continue to hamper output and slow projects, which will help keep supply from climbing more rapidly in coming years.

From Ecuador to Pakistan to the Democratic Republic of Congo, miners face resource nationalism, armed conflict and little infrastructure.

"Resource nationalization is a risk both for mining companies and for the nations involved, typically, particularly in developed nations," said Fred McMahon of the Fraser Institute in Canada.

For data on the world's copper output click on Reuters Metal Production Database:

(<http://bond.views.session.rservices.com/MPD/>)



**METALS INSIDER-DANCING IN DR COPPER'S BLIND SPOT**

Andy Home is a Reuters columnist. The opinions expressed are his own. For more Metals Insider columns, top Reuters metals stories and third party content, please visit the free Base Metals Community website at ([www.metalsinsider.com](http://www.metalsinsider.com)) --

By Andy Home

LONDON, April 1 (Reuters) - "Dr Copper" is so named because of the red metal's reputed ability to act as a lightning rod for the world's manufacturing sector, a quality that has accorded it an honorary degree in economics.

However, those who know him best know that "Dr Copper" has a blind spot. Actually he has several but there is one that is so large that it prevents any consensus as to the market's fundamental dynamics at any one time, copper's very own Uncertainty Principle.

It is the statistical black hole that exists at the very heart of the copper market, namely China. That black hole got a whole lot bigger last year, which is why bulls and bears have rejoined battle over whether this market is in deficit or in surplus and over whether China is sitting on huge surplus stocks or hungry for more.

**BLACK HOLE**

Analysts have three key sources of data for what is happening, copper-wise, in China. The first are the country's refined copper production figures released each month by the National Bureau of Statistics. The second are the import/export figures released each month by the country's customs department. The third are the warehouse stocks figures reported by the Shanghai Futures Exchange.

What no one knows is the true level of the country's consumption or the level of stocks cumulatively held by the government's State Reserves Bureau (SRB), industrial entities and speculative players.

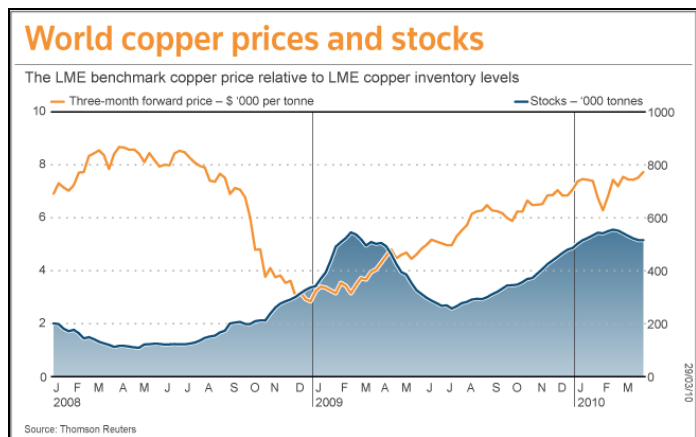
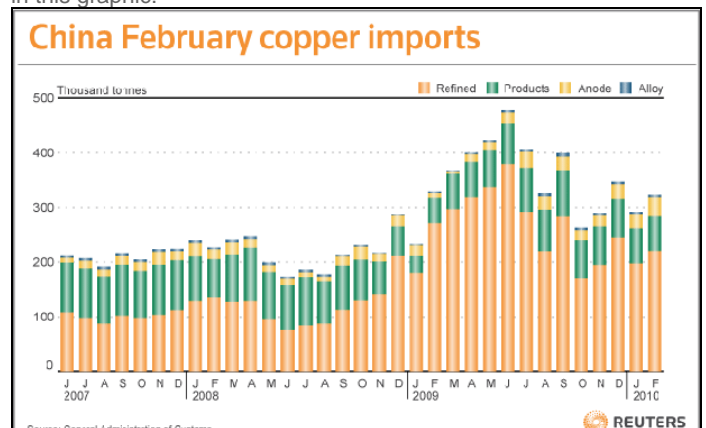
Monthly figures for output of copper products are used by some as a proxy for consumption but there are serious doubts as to whether they can capture anything other than the largest semi-fabricators. Nor do they provide any clue as to the mix of refined metal and scrap going into individual product lines.

Thus, the International Copper Study Group (ICSG), the foremost collector of copper market statistics, uses the three sets of (moderately) reliable data to calculate what it calls "apparent consumption." The formula runs as follows: production plus net imports plus/minus changes in Shanghai exchange stocks.

It is not alone in using this methodology. The same statistical black hole exists in other metals. The problem for copper is that China is by some margin the world's largest consumer of the red metal and, because the country suffers from a structural domestic shortfall, the biggest single buyer of copper in the international market.

**EXPANDING DARKNESS**

Chinese net imports of refined copper ballooned last year, as shown in this graphic:



At 3.112 million tonnes net imports were a record high and more than double the 1.360 million tonnes imported in 2008.

Chinese production, the other component of domestic market supply, grew by 14.7 percent last year to 4.252 million tonnes.

Inevitably then, the ICSG's apparent consumption calculation for China rocketed. It was up 38 percent year-on-year, completely offsetting a 16-percent decline in consumption in the rest of the world.

Except that Chinese real consumption couldn't possibly have expanded at that pace. For what it's worth, the official figure for products output growth was "only" 19 percent.

The obvious conclusion is that there was a statistically significant build in non-exchange stocks, but how big a build is the subject of renewed heated argument between bulls and bears.

The ICSG itself has unwittingly fuelled that argument in the form of an invitation to analysts to discuss the topic of "unreported stocks" at its late-April meeting in Lisbon.

Bears have seized upon the invitation as proof that the ICSG knows its figures are "wrong." That's an incorrect assumption.

The ICSG invites outside parties to present papers on copper market themes at all of its meetings. It's just that the theme this year will be that of unreported stocks and that the invitation email, by the group's own admission, was inadvertently sent to a wider-than-intended distribution list.

The ICSG is not going to change its methodology. It will continue to use the only reliable data that are available to calculate "apparent consumption." Others will continue to be welcome to use that data to "guesstimate" Chinese consumption and/or internal stocks build.

**SHADOW DANCE**

Which brings us back to where we started. Everyone has their own "guesstimate" as to how much stocks build took place in China last year.

Long-standing bears posit a number in excess of one million tonnes. Actually, 1.8 million tonnes seems to be the latest extrapolation derived from local producer Jiangxi Copper's estimate of Chinese consumption at its press conference on Wednesday.

Others, such as Macquarie Bank, which has an extensive "on-the-ground" research presence, suggest a much lower figure of around 700,000 tonnes.

There is a single shaft of light, albeit a very weak one, in terms of assessing Chinese stocks build. The State Reserves Bureau said in June last year that it had bought 235,000 tonnes.

It also said it had halted purchases but that was eight months ago and it's a moot point as to whether it has since resumed.

Macquarie has factored that and a 77,500-tonne build in Shanghai exchange stocks into its calculation. The balance 400,000 tonnes it splits between commercial stocks build (actually re-stocking) and "speculative" stocks build, a label that can include anything from the world's largest physical traders to the smallest Chinese speculators using government loans to play the metals market.

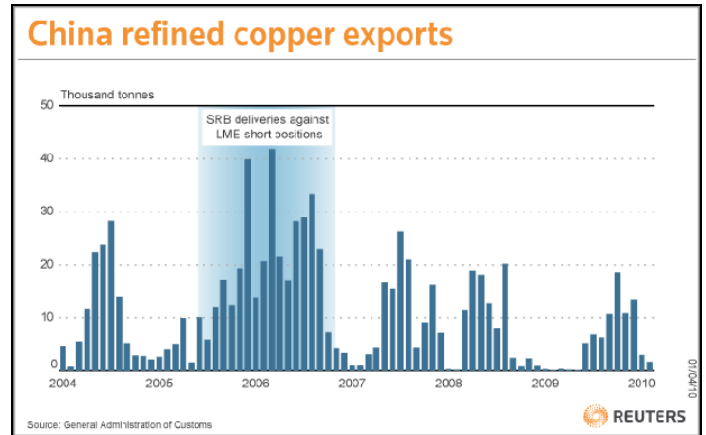
**DR COPPER MAY BE BLIND BUT IS HE WRONG?**

This bear-bull dance in "Dr Copper's" blind spot is not going to stop any time soon, or at least not until a Chinese entity with sufficient credibility provides the missing data. But does any of it really matter? Is this the modern-day equivalent of medieval theologians arguing about how many angels could stand on the head of a pin?

Arguably, it only matters if the flow of copper into China goes into reverse and this seems highly unlikely.

As shown in the next graphic China has been a significant exporter of refined copper in only one year in the last six. It happened in 2006 and it's worth remembering the unique circumstances that occasioned the reverse-flow.

That was the year that the State Reserves Bureau shipped large tonnages against short positions accumulated on the London Metal Exchange by its star-turned-rogue trader Liu Qibing. Of the total 243,000 tonnes of exports 165,000 tonnes went to South Korea and Singapore, the nearest LME warehouse locations.



It was an episode that caused much embarrassment for the Bureau and which resulted in the imprisonment of Mr Liu for illegal use of state funds.

The SRB after all is not meant to be stockpiling copper for delivery to the LME. It is charged with maintaining reserves to release at times of high prices and physical scarcity to meet the country's strategic requirements.

That is also why China's commercial players build stocks at times of low prices and, indirectly, why speculators hold stocks in China (and in bonded warehouse at Chinese ports), not elsewhere.

China, after all, is the world's largest consumer, the one with the fastest present consumption growth, even if it's not 38 percent, and the one with the projected fastest consumption growth for the foreseeable future.

No one is holding stocks in China with a view to re-exporting the metal. The bet, and it seems a reasonable one, is that if that copper is going to be sold at a profit anywhere in the world, it will be in China.

That may be what the current copper price, still largely predicated on continued strong demand from China, is saying.

"Dr Copper" may be partially blind but he may not be entirely wrong! (Graphics by Scott Barber)

**CHILE GOVERNMENT MINING POLICIES AND PLEDGES**

SANTIAGO, April 5 (Reuters) - President Sebastian Pinera, a conservative billionaire who took the helm in March ending two decades of center-left rule, campaigned vowing incentives for investment in the linchpin mining sector.

Pinera backtracked on an early campaign pledge to sell up to 20 percent of world No. 1 copper producer Codelco to private pension funds in the face of vocal resistance from powerful unions and opposition politicians in a divided congress.

However he does favor funds taking a collective minority stake, and says any such sale would need wide public approval.

Following a massive Feb. 27 earthquake that killed hundreds of people and wrecked roads and towns, the government has said it is looking at a moderate tax adjustment and is studying whether to change royalties paid by mining companies to help fund reconstruction. The quake caused an estimated \$30 billion in economic damage.

Following is a list of government mining policies and pledges:

\* Impose a "moderate", temporary tax adjustment seen aimed at profits of larger corporations to help fund post-quake rebuilding. Although this could affect foreign mining companies operating in the world's top copper producer, several company officials say they don't expect this to deter investment in a country widely viewed as an attractive destination.

\* Study possibly increasing royalties levied on miners to help fund post-quake reconstruction. This would be a larger concern for a mining sector that now pays the government a 5 percent share of operating profits, although executives say existing contracts would make it difficult to revise the royalties, and local media have reported it is unlikely.

\* Revamp the corporate management of Codelco and other state companies in an effort to improve efficiency. Codelco's Chief Executive Jose Pablo Arellano has said he will step down in coming months. Pinera is expected to name a close ally to run the miner, which increased output last year for the first time in five years.

\* Favor private pension funds taking a collective minority stake in Codelco, but not all out privatization. Seek wide public approval for any eventual stake sale to pension funds.

\* Create incentives for private companies and mining firms to build desalinization plants to feed mining operations in water-scarce regions like the mineral-rich Atacama desert.

\* Offer tax incentives to mining companies that develop new technology and expand research. Lure more foreign mining investment to help the government achieve a target of 6 percent annual growth for the Chilean economy.

Foster investment in mining exploration and alternative energy sources.

**CHILE CODELCO COPPER OUTPUT RISES IN 2009**

SANTIAGO, April 5 (Reuters) - Chile's Codelco, the world's top copper producer, increased copper output 16 percent to 1.7 million tonnes in 2009 as it forged ahead with heavy investments during the global slump, and expects to increase that level slightly this year as it extends the life of older mines.

Last year's output ended four consecutive years of dwindling production as lower grades at aging mines and labor strikes hit output of one of Chile's main revenue-earners.

Total output including Codelco's stake at El Abra mine rose to 1.78 million tonnes in 2009, nearly 12 percent of the world's total. El Abra is controlled by Freeport-McMoran .

Codelco said in January it planned to invest around \$2.3 billion in 2010 as part of a drive to boost output at aging mines and said it would seek international financing.

Following is a table of Codelco output since 2004, broken down on a mine-by-mine basis (in 000's of tonnes):

	2009	2008	2007	2006	2005
<b>CODELCO NORTE</b>	875	755	896	941	965
<b>SALVADOR</b>	65	43	64	81	78
<b>ANDINA</b>	210	220	218	236	248
<b>EL TENIENTE</b>	404	381	405	418	437
<b>EL ABRA*</b>	80	81	81	107	103
<b>GABY</b>	148	68	N/A	N/A	N/A
<b>TOTAL WITH EL ABRA</b>	1,782	1,548	1,665	1,783	1,831

\* Figures represent Codelco's 49 percent share in El Abra.

Following is a history of Codelco's annual output since 2000, excluding the El Abra development:

2000	1,515,700 tonnes
2001	1,592,300 tonnes
2002	1,519,700 tonnes
2003	1,562,500 tonnes
2004	1,733,200 tonnes
2005	1,728,000 tonnes
2006	1,675,900 tonnes
2007	1,583,300 tonnes
2008	1,466,400 tonnes
2009	1,702,000 tonnes

Information compiled from data of Chile's copper commission Cochilco and Codelco.



**COPPER LABOR CONTRACT EXPIRIES IN 2010**

April 1 (Reuters) - Although 2010 is not a big year in terms of labor contract expiries in the copper industry, high prices for the red metal amid the global economic recovery may prompt workers to press for higher wages.

Workers at the massive Chuquicamata in Chile, which is controlled by No. 1 copper producer Codelco, staged a two-day stoppage in January but went back to work after accepting a wage deal that clears the decks until the next round of major wage negotiations later this year. According to analysts, high prices could fire up employees at other copper operations to call for a bigger slice of company profits, which could lead to copper price spikes. Anglo-Swiss miner Xstrata reached labor agreements with workers at its Sudbury nickel and copper operations in Canada to avoid a potential strike.

The following table lists the major labor contracts which are set to run out at copper facilities later this year:

Plant name	Exp. date	Plant type	Owner	Country	Output
*CCR	31/05/10	Refinery	Xstrata	Canada	370,000
Mantos Blancos	30/11/10	Mine/SX-EW	Anglo	Chile	90,153
Mantoverde	30/11/10	SX-EW	Anglo	Chile	61,515
Collahuasi	30/11/10	Mine/SX-EW	Anglo/Xstrata	Chile	535,850
Radomiro Tomic	30/11/10	SX-EW	Codelco	Chile	307,600

\* Refinery output capacity

\*\* Figures based on 2009 output

**POLITICAL RISK FACING COPPER MINERS AROUND THE WORLD**

April 1 (Reuters) - Copper miners could face strikes from workers demanding more benefits, higher windfall taxes and resource nationalism if prices for the red metal increase substantially amid the global economic recovery.

"One risk oddly enough would be accelerating copper prices ... When prices get particularly high, governments and unions typically get more militant about wanting a larger cut of profits," said Fred McMahon with the Fraser Institute in Canada.

Following is a list of political risk factors that miners could face in copper producing nations:

**CHILE**

\* The world's No. 1 copper producer is considering raising royalties to finance reconstruction of towns and industries battered by a Feb. 27 earthquake, although analysts say the likelihood of a tax hike by the center-right government of Sebastian Pinera is low given his pro-business credentials.

\* High copper prices could embolden union workers to seek higher wages during contract negotiations, which could result in a repeat of some of the strikes seen in 2009.

**PERU**

\* Center-right President Alan Garcia faces conflicts over Peru's natural resources. More than 100 communities have mobilized to stop big mining or energy projects and blame the government for failing to effectively solve conflicts that pit poor villagers against foreign companies.

\* Ollanta Humala, a leftist former presidential candidate who spooked commodity investors with promises of more state control, is seen running in the 2011 presidential election, although he is trailing in early polls.

**ZAMBIA**

\* Analysts see relatively low political risk in 2010, but warn that presidential elections in 2011 may lead to some political instability in the African nation.

**DEMOCRATIC REPUBLIC OF CONGO**

\* Seven years after a 2003 peace deal, Congo is still plagued by a violent conflict with rebels in the east of the country and sporadic insecurity elsewhere which means it has yet to reap the full benefit of its huge mineral reserves.

\* Miners say that operating in the DRC is a challenging business due to the almost complete absence of infrastructure, particularly power, and the potential for labor unrest.

\* The Eurasia Group said in a report in late 2009 that it sees higher risk in the DRC in the short- and medium-term, although it said there are positive signs like DRC's improved relations with neighbors.

\* There is risk of political wrangles between the government and miners over licenses, such as that between Canadian miner First Quantum Minerals Ltd and the DRC's government over the copper-cobalt Kolwezi project.

**MONGOLIA**

\* The country is moving gingerly to tap its huge mineral wealth, seeking to dispel fears of resource overdependence and dominance by powerful foreign miners.

**PAKISTAN**

\* Many investors are hesitant to invest in Pakistan because of security worries as the country battles a Taliban insurgency.

\* Canada's Barrick Gold and Chilean copper miner Antofagasta are partners in the Reko Diq copper-gold project in Baluchistan, where guerrillas have been fighting a low-level insurgency for decades for control of the province's gas and mineral resources.

\* A provincial government official said in January that the project may be canceled, but Antofagasta CEO Marcelo Awad told Reuters in March that view was held by a small minority pressing for independence of Baluchistan.

**ECUADOR**

\* Ambiguous mining regulation over a new windfall tax is seen hampering copper exploration in the mineral-rich country.

A one-year ban on mining activities halved the share value of several foreign companies exploring for metals, forcing many to leave the Andean country.

**CHILE COPPER MINES HIT BY QUAKE, OUTAGES**

April 1 (Reuters) - Operations at nine copper mines in top world producer Chile were briefly halted after a massive Feb. 27 earthquake hit power distribution, but the disruptions will have very little impact on output this year.

Together the mines produce more than 1.5 million tonnes a year, roughly 28 percent of Chile's total copper output, or 10 percent of global copper supply.

Chile's state-run Codelco, Anglo American, Antofagasta PLC Minerals and Freeport-McMoRan run the nine mines in south-central Chile.

The companies reported no significant damage to their operations near the quake epicenter but briefly lost power. Some of the mines were also hit by a nationwide blackout on March 14.

Output losses were minor and analysts say companies should be able to recover them by ramping up production later this year.

The quake and blackout spared the heart of Chile's copper mining operations in the arid, northern Atacama desert, where huge mines are fed by a separate power grid that was not damaged by the tremor.

These are the mines affected by the quake and blackout:

Mine	Operator	Output (in tonnes per year)
El Teniente	Codelco	404,000
Andina	Codelco	210,000
Salvador	Codelco	65,000
Los Bronces	Anglo American	238,423
El Soldado	Anglo American	41,365
Mantoverde	Anglo American	61,515
Los Pelambres	Antofagasta Minerals	312,000
Candelaria	Freeport-McMoRan	185,000
<b>Total</b>		<b>1,517,303</b>

\* Figures based corporate 2009 results.

**POLL-ROBUST DEMAND TO PUSH COPPER INTO DEFICIT IN 2010**

By Pratima Desai

LONDON, March 26 (Reuters) - Healthy global demand and the possibility of supply disruptions mean the copper market could see a small deficit this year compared with previous forecasts of a surplus, a Reuters survey showed.

The survey of 13 metal analysts carried out over the last two weeks showed the copper market was expected to have a deficit of 23,000 tonnes. In the January survey expectations were for a surplus of 115,000 tonnes.

Global demand for copper -- used widely in power and construction -- is expected to rise 4.5 percent to 18.5 million tonnes this year, the survey showed.

China's refined copper imports at 220,530 tonnes in February were up 12 percent from the previous month, ahead of forecasts of 190,000 tonnes, a sign of robust demand from the world's largest consumer of industrial metals.

"It has become clear from data so far in 2010 that the strength of economic growth will set a firm base for further strong gains in China's copper demand," said Gayle Berry, analyst at Barclays Capital.

"Continued expansion of the power grid, strong auto sales and uptake of consumer appliances will be the key drivers."

The copper market last year was boosted by Chinese government and consumer demand, partly for stockpiling.

Strong Chinese demand can be seen in the country's refined copper imports -- a record 3.19 million tonnes last year, up 118.7 percent from 2008.

Evidence of rising demand this year can be seen in stocks of copper in London Metal Exchange warehouses which have fallen 35,400 tonnes since March 1 to 516,925 tonnes.

Benchmark copper on the London Metal exchange surged about 140 percent last year. On Friday it traded around \$7,500 a tonne, having hit a 2010 high of \$7,796 a tonne on Jan. 7.

**LONGER LEAD TIMES**

Also behind the forecasts for a small deficit is the idea that copper production may be prone to disruptions.

The earthquakes in Chile earlier this year illustrate the point. The earthquake did no serious damage to mining infrastructure, but it did hit power supplies.

"Refined production remains vulnerable to strikes, equipment failures, low ore grades, and more recently the scarcity of copper scrap," said Justin Lennon, analyst at Mitsui Bussan Commodities.

"(However) with the price of copper significantly above the cost of production, miners are quickly increasing available capacities."

Forecasts for the market balance range from Deutsche Bank and Mitsui's surplus of 300,000 tonnes to UBS's deficit of 1 million tonnes.

"We think copper is going to get excruciatingly tight by the middle of the year because of the end of destocking and restocking in the world outside China," said Julien Garran, analyst at UBS.

"Restocking is driven by the cost of capital and whether customers think the products they need are getting scarcer ... We are already seeing sharply extended lead times for delivery of copper products."

**COPPER STEADIES AT LOWER LEVELS IN LATE TRADE**

By Chris Kelly and Rebekah Curtis

NEW YORK/LONDON, April 8 (Reuters) - Copper maintained a slightly negative tone in late business on Thursday, as renewed anxiety over the fiscal stability of Greece weighed on broader market sentiment and technical barriers kept values pinned below recent 20-month peaks.

Copper for May delivery on the New York Mercantile Exchange's COMEX division ended down 1.10 cents at \$3.5865 per lb, near the upper end of its \$3.5350 to \$3.59 session range.

After the close, prices drifted down a bit further, but failed to break significantly lower -- a signal that the market wants to go higher, analysts said.

"I think you have a strong bullish fundamental bias that is running into some short-term technical issues," said Michael Gross, futures analyst with Optionsellers.com in Tampa, Florida.

"It appears that this market wants to go up. If a market doesn't sell off on a day it should ... it's usually an indicator that it's going higher."

Prices also took their cues from sharp swings in the currency markets, where the euro edged higher against the dollar in late trade after European Central Bank president Jean-Claude Trichet assured markets that Greece was in no danger of defaulting on its debt.

Still, lingering uncertainties about sovereign debt in the euro zone have curbed investor appetite for risk in recent weeks.



Copper for three-months delivery on the London Metal Exchange fell to \$7,805 a tonne, its lowest since April 1 and closed at \$7,895 a tonne in official rings versus \$7,945 on Wednesday.

The metal used in construction and power hit \$8,010 a tonne earlier this week, its highest since August 2008 and around \$1,000 away from an all-time high of \$8,940 struck in July 2008.

"A lot of people had \$8,000 as a target for the market, and now we're seeing some profit taking," said Daniel Smith, an analyst at Standard Chartered. "With a strong dollar and renewed worries about Greece, that's adding to some weakness."

Analysts questioned the sustainability of this week's 20-month high in copper, as they are still concerned about the pace of the global economic recovery.

"We're seeing restocking, but it's a question about whether it's a sustainable recovery," Smith said.

March imports of unwrought and semi-finished copper products in China likely stayed flat or fell slightly from a month ago as margins for profit-driven spot inflows sank.

**BETS ON LONG-TERM COPPER**

At the CRU/CESCO conference in Chile, the chief executive of Freeport-McMoRan seemed to bet on the long-term view too, saying he was not ready to go all out on expansions until demand had recovered in most of the world, but he remained "enormously enthusiastic" about copper's long-term outlook.

"Copper's got extremely positive fundamentals going forward and a lot of this price is built on expectations for tighter conditions in the medium term," analyst Carl Firman at Virtual Metals said.

In other metals, nickel also slipped to its lowest in over a week at \$24,269 a tonne and closed at \$24,720 a tonne from \$24,725, but it was still the strongest performer of the year, having risen more than 30 percent since January.

Nickel's price prospects look undimmed, analysts said, due to supply tightness and a recovery in the stainless steel industry, which accounts for about two thirds of nickel demand.

Nickel stocks at LME warehouses dropped by 342 tonnes to 155,670 tonnes, their lowest since late December and down 6.5 percent since a record high of 166,476 tonnes in early February.

On Thursday, canceled warrants -- material earmarked for delivery -- rose to 6,366 tonnes, the highest so far this year, with 3,324 tonnes of cancellations having occurred this week.

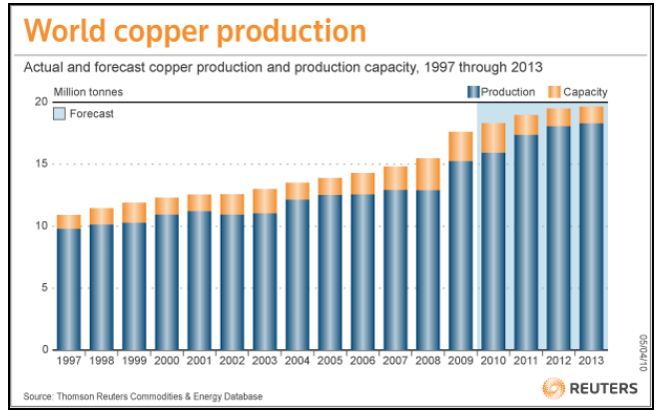
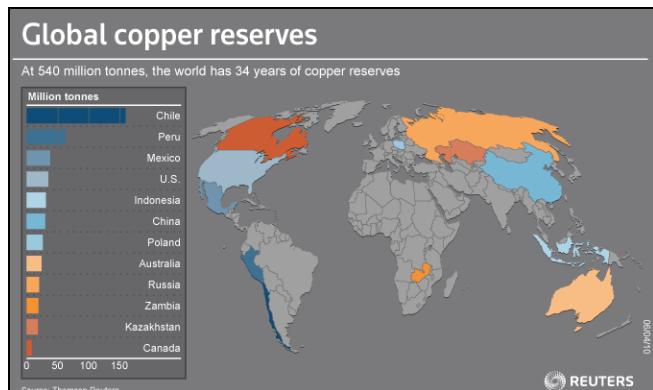
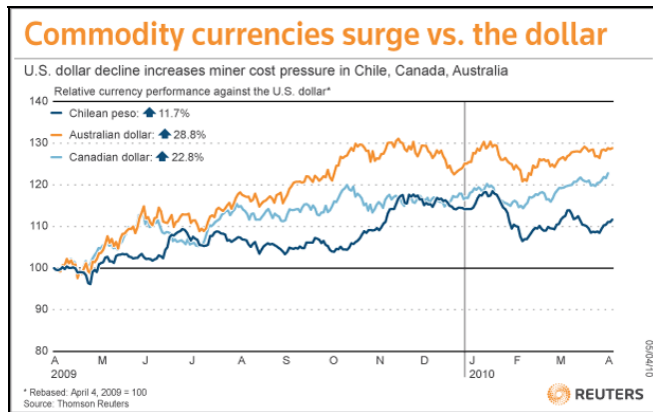
Zinc was at \$2,380 from \$2,400 and aluminum was at \$2,359 a tonne from \$2,352. Battery material lead was at \$2,290 from \$2,290. Tin traded at \$18,600 a tonne from \$18,575.

Metal Prices at 1906 GMT

Metal	Last	Change	Pct Move	End 2009	Ytd Pct move
COMEX Cu	357.5	-1.7	-0.47	334.65	6.83
LME Alum	2358	6	0.26	2230	5.74
LME Cu	7891	-54	-0.68	7375	7
LME Lead	2285	-5	-0.22	2432	-6.04
LME Nickel	24700	-25	-0.1	18525	33.33
LME Tin	18525	-50	-0.27	16950	9.29
LME Zinc	2375	-25	-1.04	2560	-7.23
SHFE Alu	16630	-155	-0.92	17160	-3.09
SHFE Cu*	61800	-950	-1.51	59900	3.17
SHFE Zin	19025	-465	-2.39	21195	-10.24

\*\* 1st contract month for COMEX copper \* 3rd contract month for SHFE AL, CU and ZN SHFE ZN began trading on 26/3/07

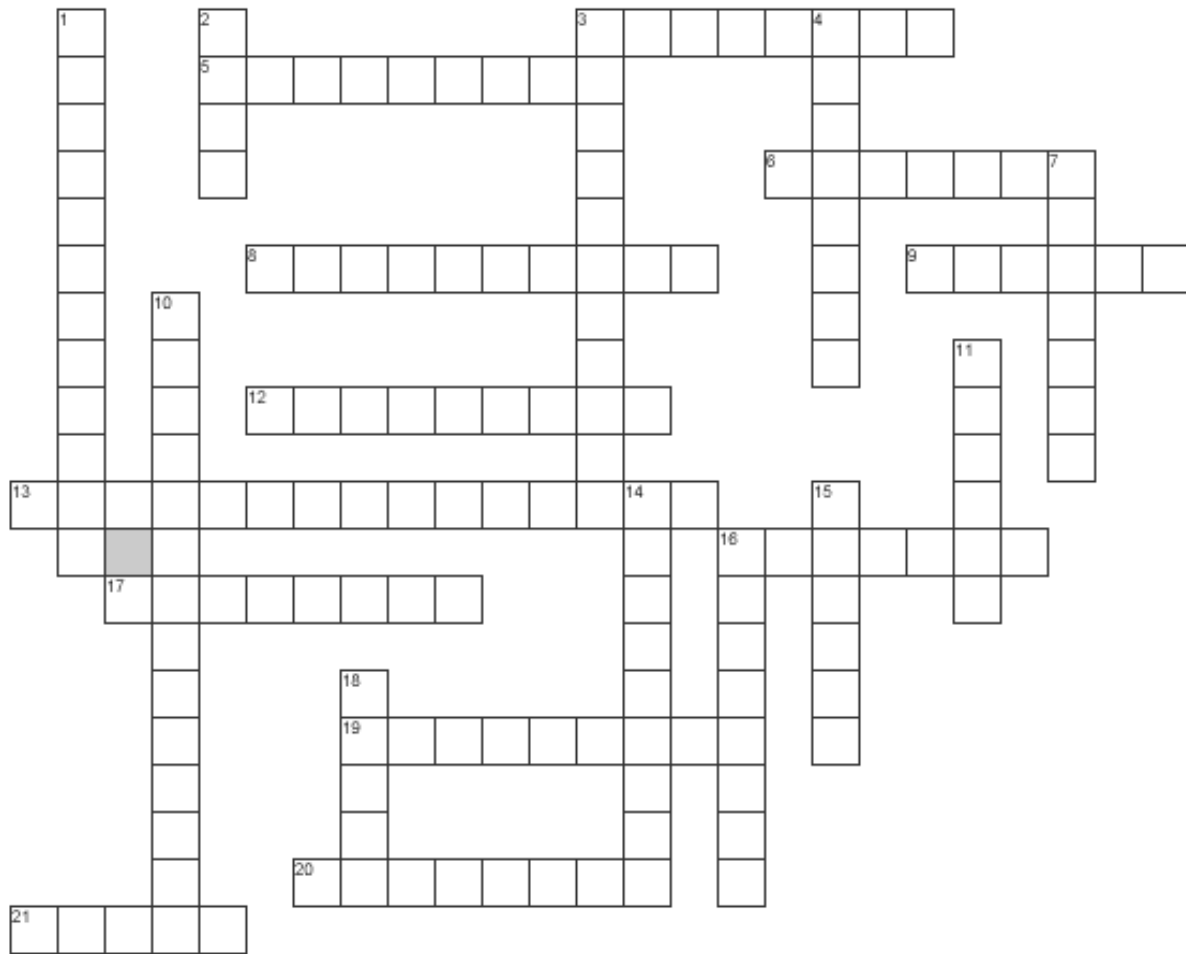
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# CRU Crossword Challenge



**ACROSS**

- 3 Chile's late dictator
- 5 The world's biggest copper mine
- 6 The traditional name of Chile's Easter Island
- 8 Byproduct of copper mining used to harden steel
- 9 Given name of infamous SRB copper trader
- 12 The capital of Chile's wine industry
- 13 Recent James Bond movie filmed in northern Chile
- 16 Name of Chilean volcano which spewed ash into the stratosphere in May 2008
- 17 Winner of Chile's 2009 Clausura soccer tournament
- 19 Region shared by southern Chile and southern Argentina known as the Land of Giants
- 20 Name of Reuters lead metals columnist
- 21 The long-defunct Opec of copper

**DOWN**

- 1 What metal was at stake in Avatar
- 2 Neighbor taking Chile on in the Hague over a maritime border dispute
- 3 Chile's most famous poet
- 4 Family name of infamous Sumitomo copper trader
- 7 The world's rarest precious metal, also the name of a satellite phone company
- 10 Name of Chilean island pounded by tsunamis after the Feb.27 earthquake
- 11 Mineral element just below Copper in periodic table
- 14 Chile's long-lost grape variety which has taken over from Merlot
- 15 A Chilean export that ends up as sashimi
- 16 Opposite of backwardation
- 18 Site of Rio Tinto's first mine