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# Fortis Metals Monthly August 2006

Gold, Silver, Platinum, Palladium,  
Aluminium, Copper, Nickel,  
Lead & Zinc, Tin, Plastics.

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Fortis Metals Monthly is an exclusive precious and base metals research joint venture between Fortis Bank SA/NV and Virtual Metals Research and Consulting.



## Metals and Plastics – Strategic View

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### Introduction

Geopolitical uncertainties and a weak dollar dominated July. A rise in the European Central Bank's interest rate to 3% is negative for demand, but gold is still well-placed to benefit further from Middle East turmoil while some base metals – copper, nickel and zinc – still face supply-side problems and strong demand scenarios.

### Gold

\$600/oz looking increasingly a solid base.

### Silver

Marking time, awaiting fresh impetus.

### Platinum

Slips briefly below \$1,200/oz, recovers.

### Palladium

Booming China car market offsets lower sales in the USA and Europe.

### Aluminium

Searches for new direction.

### Copper

Supply-side worries the key factor going into the autumn.

### Nickel

Nickel perspires under its very own heat-wave as demand rise and supply-side woes continue.

### Lead & Zinc

Zinc deficit widens, lead remains dull.

### Tin

Indonesia threatens marginal production cut.

### Plastics

Higher crude prices boost plastics.

## Forecasts

## Price forecasts

		End-July	1-month	2-month	3-month	12-month
Gold	\$ per oz	632.50	600-680	650	650	580
Silver	\$ per oz	11.44	11-12	11-12	11-12	11-12
Platinum	\$ per oz	1,228	1,200-1,300	1,300	1,400	1,500
Palladium	\$ per oz	309.50	290-320	300	300	300
Aluminium (3-month)	\$ per tonne	2,543	2,400-2,700	2,500	2,500	2,300
Copper (3-month)	\$ per tonne	7,794	7,500-8,800	7,000-9,000	7,000-9,000	8,000
Nickel (3-month)	\$ per tonne	25,450	24,000-29,000	25,000-30,000	>30,000	>35,000
Lead (3-month)	\$ per tonne	1,102.50	1,100-1,200	1,000	1,000	1,000
Zinc (3-month)	\$ per tonne	3,350	3,000-3,600	3,500	3,500	4,000
Tin (3-month)	\$ per tonne	8,450	8,000-9,000	9,000	9,000	8,000
Plastic: LL (September)	\$ per tonne	1,305	1,300-1,390	1,400	1,450	1,550
Plastic: PP (September)	\$ per tonne	1,295	1,290-1,350	1,350	1,400	1,450
		2-years	3-years	4-years	5-years	6-years
Gold	\$ per oz	500	500	400	350	300
Silver	c per oz	10	10	8	8	8
Platinum	\$ per oz	1,300	1,000	900	800	700
Palladium	\$ per oz	280	280	250	230	230
Aluminium (3-month)	\$ per tonne	2,200	2,200	2,000	2,000	1,900
Copper (3-month)	\$ per tonne	7,000	6,000	4,000	4,000	3,500
Nickel (3-month)	\$ per tonne	20,000	18,000	15,000	14,000	14,000
Lead (3-month)	\$ per tonne	900	900	800	800	800
Zinc (3-month)	\$ per tonne	4,000	3,000	3,000	2,800	2,500
Tin (3-month)	\$ per tonne	7,500	7,500	7,000	7,000	7,000
Plastic: LL (September)	\$ per tonne	1,400	1,300	1,200	1,200	1,100
Plastic: PP (September)	\$ per tonne	1,300	1,200	1,100	1,100	1,000

Source: Virtual Metals

## Analysis

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### Look after the pennies ...

British children of an older generation will all be familiar with the exhortations of their (Second World) war-weary parents to “look after the pennies, and the pounds will look after themselves.” In countries as diverse as the USA, India and the Philippines the recent record high prices for some base metals, copper and zinc especially are giving a fresh twist to that old adage.

In early July, Philippines’ customs officers seized a 40-foot container holding as many as 3m of the country’s older one-peso coins (face value less than \$0.02) and weighing as much as 20t; any export of coins above 10,000 pesos must be declared. The coins weigh about 6 grams and are an alloy of 75% copper and 25% nickel, making them worth in scrap metal terms about 3.5 pesos apiece. One-peso coins minted since 2004 have been made from steel and plated with nickel. Filipino coin-smugglers are an entrepreneurial bunch; the latest seizure was the third since the start of 2006. On the basis that for every one captured three or so more probably manage to evade arrest, this is good business for some. It’s this kind of business which has got the officials at the Reserve Bank of India (RBI) scratching their heads. The face value of the country’s two and five-rupee coins, which are a similar copper-nickel alloy, is still just about above the scrap metal content but might not be much longer. Consequently the RBI is considering replacing these two coins with new ones, again minted from stainless steel, as happened with the one rupee, the 50 paise and 25 paise coins in 1992.

### Second assassination of Lincoln?

The face-value/scrap-value debate over coins has also become a political issue in the USA, where a struggle is currently going on over the humble 2.5 gram one-cent (or penny) coin, which carries the head of Abraham Lincoln on its obverse. On 18<sup>th</sup> July Jim Kolbe, a Republican Party Representative for Arizona, introduced the cunningly named Currency Overhaul for an Industrious Nation (that’s COIN for short) Bill which, among other things, calls for the elimination of the penny; but is essentially a study of whether using less expensive metals in coins would be sensible; at the same time, the study contemplates phasing-out the dollar bill and replacing it with a dollar coin. Kolbe (who failed to get similar proposed legislation accepted in 2001) argues that, as it now costs the US Mint about 1.4 cents to produce a single copper-plated zinc one cent coin (a bill of about \$900m a year), it no longer makes sense to retain the penny, which is 2.5% copper and the rest zinc. If Kolbe gets his way then transactions ending in 1, 2, 6 or 7 cents would be rounded down and sums ending in 3, 4, 8 or 9 cents would be rounded up, and the nickel would be the smallest denomination coin. Defenders of the USA’s one cent coin range from the ubiquitous Sir Richard Branson, chairman of Virgin Group to Kevin Federline (better known perhaps as Mr Britney Spears), and they are just the tip of a large anti-COIN activist campaign. They also understandably point out that as Kolbe hails from Arizona, one of the USA’s prime copper-producing regions, his legislation is open to the accusation of being not entirely disinterested.

The odds are currently stacked against Kolbe’s Bill not least because opponents claim that, if passed, it would merely increase demand for the 5-gram five cent ‘nickel’ coin, which has a much larger copper content, 75%, the rest being nickel. Base metal producers, however, might consider throwing their weight behind Kolbe’s Bill. In 2005 the US Mint produced more than 7.7bn pennies and almost 1.75bn nickels. That’s a balance of 481.25t of copper and 18,768.75t of zinc in the one-cent coin, versus more than 6,412t copper and 2,137t of nickel in the five-cent. Every little helps ...

## Focus

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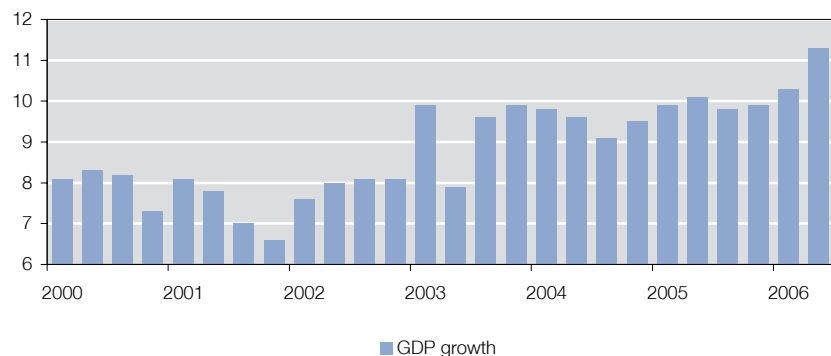
### The inexorable rise of nickel

*Nickel prices on the London Metal Exchange rose to their highest in almost two decades in nominal terms in July, prompted by a variety of factors including strong economic growth in China and niggling supply issues which, separately, do not amount to much but collectively begin to create a sense of a very tight market before the end of 2006. Certainly that's the view of some of the bigger producers, who have begun to talk openly about the need to ration customers. With so little incremental new supply coming onto the market anytime soon, the July price record is unlikely to last very long.*

It has become something of a knee-jerk reaction to attribute base metals' price rises to the China Factor but in the case of nickel it is inescapable. China continues to defy those who have been forecasting that its economy will hit the buffers. Q2 2006 saw another double-digit increase in its GDP, an annualised rate of 11.3%, and one response by the Chinese authorities to try to induce a gradual slowing of the economy – an increase in Chinese banks' reserve requirements (up 50 basis points to 8.5% for banks meeting official capital adequacy requirements and to 9% for those which do not) – is a little like using a water-pistol to put out the Great Fire of London.

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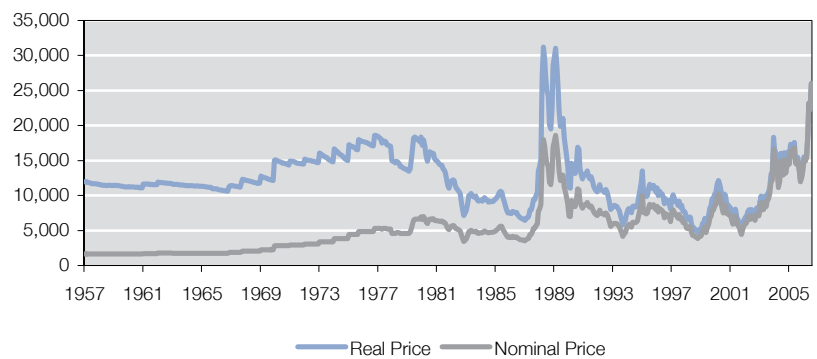
#### Chinese GDP growth, quarterly, annual % rate



Source: Reuters Ecowin

By the end of July nickel prices on the London Metal Exchange (LME) had risen by 94.3% (3-month contract) since the start of 2006, providing a good rationale as to why two of the world's biggest copper producers – Phelps Dodge and Xstrata – are currently issuing almost daily press releases as to why they make the better suitor for Inco and/or Falconbridge, two of the world's biggest nickel miners. On top of which, nickel's fundamentals (although a hostage to the fortunes of stainless steel) are looking very attractive through to the end of the decade; the current nickel bull run may endure for much longer than anyone anticipates. And although the price looks due for a correction, given that the July average (up to the 25<sup>th</sup>) of \$27,353/t is, in nominal terms, the highest-ever monthly average, this is still some \$10,000/t below its all-time real high of \$38,324/t of April 1988 (adjusted by the US consumer price index). Yet thanks to nickel's status essentially as an alloy in the production of stainless steel (about 70% of nickel production goes into stainless steel), it is no simple matter to gauge how strong or weak nickel's fundamentals really are.

Real and nominal price of Nickel since 1957



Source: Reuters Ecowin

In demand terms the world currently consumes around 3,500t of refined nickel daily. On the supply side, new nickel projects are waiting in the wings but several of them have been subject to cost overruns and political difficulties, at a time when producers' costs are climbing. This squeeze is being reflected in current global stock levels, which have not been above 75,000t since crashing in 1995 from their peak of 150,000t; today they are apparently poised to disappear altogether. At the start of 2006 LME nickel stocks, a useful indicator, were an already small 36,042t; on 7<sup>th</sup> July they were down to 9,378t; by 24<sup>th</sup> July they were 5,448t, and by the end of July were down to 4,128t, although by 3<sup>rd</sup> August they were back above 5,000t. When more than 85% of the LME's stocks of a metal disappear in half a year and there are few obvious new supplies becoming available, little wonder the price has responded accordingly. Perhaps the only surprise is that we have not already reached a new real high; if expectations were not so cautious concerning global interest rates and economic growth, we might already by now have surpassed \$38,324/t.

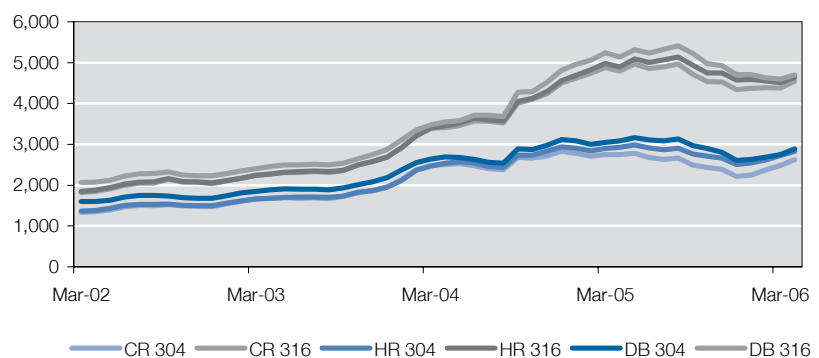
Nickel's recent surge owes much to an unprecedented growth spurt in stainless steel output, a remarkable turn-around from the short-lived slump of late 2005. The International Stainless Steel Forum (ISSF) reported (6<sup>th</sup> July) that global stainless steel production in Q1 2006 was 6.6 Mt, "the highest amount of stainless steel that has been produced in a single quarter," only 0.3% higher than the same quarter of 2005 but a whopping 12.2% above Q4 2005. Comparing Q1 2006 with Q4 2005 shows that the biggest percentage growth in stainless production was in the Americas, up by 17.7%, followed by Western Europe and Africa, up by 12.6%, and then Asia, up by 11.1%. But in volume terms the big leap was in Asia, by 333,000t, followed by Western Europe, up by 270,000t, and then the Americas, registering an increase of 114,000t. The ISSF expects stainless steel production to reach 26.4 Mt in 2006, an increase of 8.6% on 2005, a growth rate significantly above the long term average and reversing much of the lost production during the short-lived slump in 2005, when annual global stainless steel production decreased by 1.0% to 24.3 Mt. Unsurprisingly, stainless steel prices have surged so far this year and in the USA, Japan and Germany the price for one central type, 304 cold-rolled, is higher now than for a decade, reflecting in part the recent surge in nickel prices. In China, 304 type stainless steel prices have risen more than 50% since the start of 2006.

A large factor behind stainless steel's rapid recovery is China's apparently insatiable appetite for the alloy, which even appears to be taking local Chinese experts by surprise. Xu Aidong, an analyst with Beijing Antaike Information Development, an affiliate of the China Nonferrous Metals Industry Association, told Bloomberg in July that China's stainless steel production this year will rise more than 25% to 4.7 Mt in 2006, increasing demand for nickel by 35,000t, or 50% of this year's projected increase in global demand. Xu put global demand for nickel rising to 1.33 Mt this year, 70,000t above 2005. Global nickel

production this year will struggle to top 1.4 Mt, and consumer inventories have been steadily drawn-down for the 1H of 2006 as stainless steel producers held off buying in the hope that the nickel price would fall back. Not much sign of that so far, and small production adjustments by miners can have a much greater impact in this tight scenario than otherwise. Falconbridge, for example, said on 24<sup>th</sup> July that it was lowering by 4.3% its refined nickel production estimate for (this year) to 110,000t, 1,000t less than output in 2005. A 1,000t less is not a disaster; but every little counts right now. China (this year) may well account for 25% of global nickel demand, nearly all of which it needs to import; its main nickel producer, Jinchaun Group, which, with annual output capacity of some 100,000t, produces 90% of China's nickel.

Moves by the Chinese authorities to try to restrain the country's rampant growth are prudent, but in one sense the government is over a barrel – for socio-political reasons it needs to ensure the maintenance of an orderly but rapid industrialisation to meet rising consumer aspirations. China's banks lent Yuan 2.14 trillion in 1H 2006, meaning they are likely to meet the full-year target by the end of July. Much of this lending has financed rapidly expanding urbanisation, a heavy user of stainless steel; China's fixed-asset urban investment in 1H 2006 rose 31.3% year-on-year. There is intense debate inside China as to whether the country's rapid growth at this high level is sustainable. According to Fan Jianping, Deputy Director of the Economic Prediction Department of the State Information Center, interviewed by the *People's Daily* on 22<sup>nd</sup> July: "China is now dancing on the blade of its economic growth ... If handled properly, it will be able to absorb its internal overheating investment and escape from inflation disaster, thus it can simply keep on running by maintaining a growth rate of over 10%. If handled improperly, it will probably fall into an overall overheating." The government is taking small steps to rein-in growth (new regulations announced in late July, for example, make it more difficult for foreign investors to buy property) but ultimately this shift from a centrally-controlled to a market economy may prove beyond anyone's grasp.

Price of stainless steel, various types (\$/tonne)



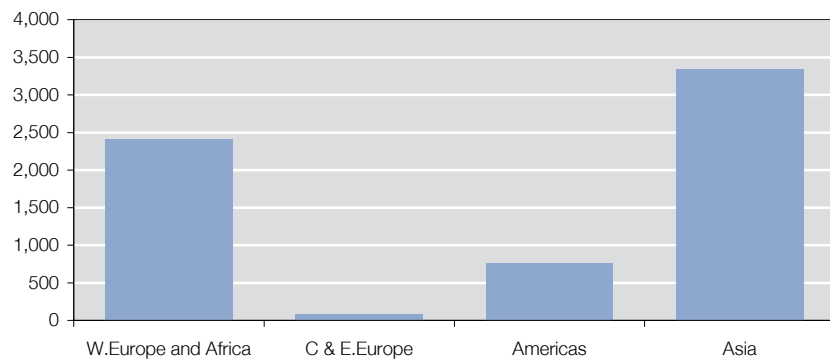
Source: Reuters Ecowin

### Something's gotta give?

As far as nickel is concerned we are fast approaching a beguiling end-game. On the one hand it appears the spot nickel price on the LME has yet to reach a level sufficient to tempt fresh metal deposits, implying a real physical tightness in the market. Inco executives in July went on record as saying that they foresaw a global nickel deficit of 30,000t in 2006. On current prospects, that could widen substantially in 2007-2008. Those with long memories recall that when the LME's stocks fell below 2,000t in late February 1988, and the cash premium rose to \$6,000/t, the exchange suspended the contract and fixed the cash settlement price at \$10,820. Will we see a repeat of that unusual episode? And what might the consequences be both for the LME's role as a mechanism for price discovery and for nickel buyers?

A repeat of February 1988 might be averted, if the current surge in stainless steel production either results in another glut-and-slump or stainless steel users switch to producing less nickel-intensive stainless steel. Stainless producers may also try to rein-in their production. Some have already done so; citing the high nickel price, three Asian stainless steel producers, (Shanxi Taigang Stainless Steel, Baoshan Iron and Steel's Ningbo Baoxin, and the South Korean company POSCO) cut their supply of cold-rolled stainless steel by 20% (120,000t between the three) for the month of July, although these cuts may not have made much of an impact because hot-rolled stainless plants, the prime users of nickel (hot-rolled steel is used to make cold-rolled coils, in turn used in a variety of domestic and industrial applications) are nevertheless running normally. Market prices may force an even more marked switch away from the high-grade 304 stainless steel (the most versatile and widely-used version of stainless steel, containing 8%-10.5% nickel and used for heavy-duty industrial and some domestic purposes) to the lower-grade 200 series, containing 3.5%-5.5% nickel and more used in household items. Once again, this seems to be happening; Baoshan, China's biggest stainless producer, said in July it has switched to producing more lower-grade stainless steel.

**Production of Stainless Steel, 1H 2006 (000 Mt)**



Source: International Stainless Steel Federation

The 200 series has made great inroads into the Chinese market, where price is as big a factor as quality in domestic goods; type 200 stainless steel variants have captured about 35% of the country's stainless steel market, from zero at the start of the Millennium. Another alternative is that stainless steel producers switch to greater output of the 400 series, where chromium (currently about a third of the price of nickel) is used instead of nickel as an anti-corrosive additive. These options, however, are fairly long-term and will not have a marked impact on nickel demand in the short-term, while for many key industrial applications only 304-grade stainless will do. Even if all the 26.4 Mt of stainless production anticipated in 2006 by the ISSF is lower-grade 200-series using an average 4.5% nickel, that would still imply a nickel demand this year of 1.18 Mt; and of course not all of the 26.4 Mt will be of 200 type stainless steel.

### **New supply will lag demand**

Naturally, stainless steel producers are increasingly concerned as to where they might find nickel at a price they can live with. Baoshan is taking steps to ensure greater reliability of future nickel supply, buying in late July a 10% stake in Jinchuan Group, and cooperating with Jinchuan in discussions to source more nickel from deposits in the Philippines. Greenfield sites are also under consideration by various companies in Cuba, Indonesia, and Kazakhstan. But finding new projects is a lengthy process, while production costs for new nickel projects of around 50,000t-60,000t have doubled in the past five years to currently around \$4,400/t, according to David Humphreys, chief economist with Norilsk Nickel, in May this year, putting an additional cost pressure on the biggest new projects.

In the wings there are three major new nickel projects that might, in the longer-term, ease the current tight physical squeeze. But all have been plagued by cost overruns and one faces entrenched and violent local opposition from political activists. The three big new projects, Inco's Goro mine and Falconbridge's Koniambo mine, both in New Caledonia, and BHP Billiton's Ravensthorpe mine in Western Australia, are still under development. BHP reported on 25<sup>th</sup> July that its Ravensthorpe project is now running more than 30% above its original \$1.34bn budget. The development at Ravensthorpe was due to more than double nickel output at the company's Yabulu smelter to 76,000t/year, the first new shipments due in Q1 2007. However, BHP has now said it has started a detailed review both of the cost estimates and delivery schedules for Ravensthorpe. Meanwhile, Inco's Goro project, scheduled to produce an additional 60,000t/year, has not just seen its original cost estimates soar but has also been the subject of violent clashes between local indigenous protest groups and security officials protecting the site from vandalism. Inco said in a regulatory filing in July that development costs for Goro will now rise above \$2.15bn; the mine project was put on hold back in 2002 after costs rose substantially above an original estimate of \$1.45bn. Goro was expected to start production in late 2007 but that has been put back to 2008. Falconbridge's Koniambo project, another nickel mine forecast to produce 60,000t/year, with a capital cost estimated in 2004 at \$2.2bn, is not scheduled to begin production before 2009 at the earliest. If all goes well, Goro and Koniambo could be producing a combined total of 200,000t of additional nickel a year from 2010. This will be a much-needed new supply of nickel – if it gets to market. The only cloud on the horizon is that no-one really knows what the state of the stainless steel market might be by then; the many variables in that industry could present nickel's big players with a very different outlook in four years' time. In the short-term, however, it seems unarguable that nickel could well enjoy a bumper (if not bumpy) ride for the rest of this year.

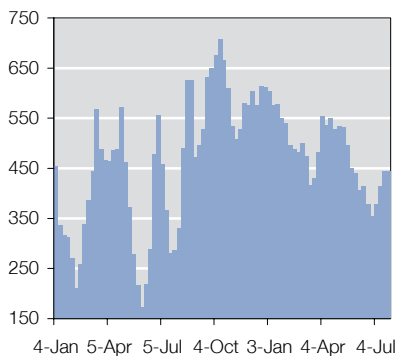
## Gold

### Gold price (\$/oz)



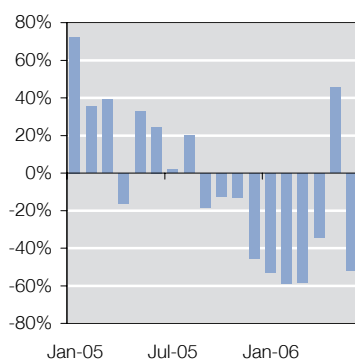
Source: London Bullion Market Association

### Comex: Non-commercial net position (tonnes)



Source: Virtual Metals

### Turkish gold imports, y-on-y % change



Source: Istanbul Gold Exchange

### News

- August 3<sup>rd</sup>: Total dehedging in Q2 2006 by gold miners was 5.1 Moz, taking the global hedgebook to 43 Moz.
- July 24<sup>th</sup>: Barrick Gold made an unsolicited bid worth \$1.53bn to acquire the fellow-Canadian company NovaGold Resources, which holds two undeveloped assets, in Alaska's Donlin Creek gold prospect and British Columbia's Galore Creek copper and gold resources. On 2<sup>nd</sup> August Barrick announced Q2 2006 net income of \$459m, up from \$47m the same time last year, on output almost doubled at 2.1 Moz, reflecting partly the contribution of the acquired Placer Dome.
- July 19<sup>th</sup>: Peru's gold output was 18.05t in May, up 26.9% compared with the same month in 2005.
- July 6<sup>th</sup>: Istanbul's Gold Exchange said Turkey's imports of gold in June were 52% lower than the same month in 2005, at 11.1t; 1H 2006 gold imports were 37.4% lower year-on-year, at 94.9t.
- July 4<sup>th</sup>: The Bank of Portugal said it sold 15t from its official reserves "in recent months" as part of a continuing programme to diversify its portfolio, under the European Gold Agreement (EGA). By the end of July total sales from the 15 signatories of the EGA stood at 331t in the current year, leaving 169t to be disposed of if they are to meet this year's 500t quota by the end of September.

### Analysis

- Firmly above \$600/oz in volatile trading

The issue of gold's status as a safe-haven alternative to other assets came to the fore again in July, with North Korean missiles, train bombs in Mumbai, the lingering stand-off between the USA and Iran over the latter's nuclear intentions, and most obviously the cross-border conflict in Lebanon all creating a palpable sense of international anxiety. These factors plus a febrile US currency helped gold stay comfortably above \$600/oz in July, the London pm fix peaking at \$663.25/oz on the 14<sup>th</sup>. Ben Bernanke, chairman of the USA's Federal Reserve, appeared late-month to signal that the end of rising interest rates might be in sight, telling the US Congress there were strong indications of a slowing American economy, whereupon the dollar fell against other currencies to gold's benefit; the August contract on Nymex settled \$13.30/oz higher on 19<sup>th</sup> July at \$642.80/oz following his comments. By 24<sup>th</sup> July, when signs of peace talks over Lebanon became more positive, the London fix was back down to \$605.70/oz.

### Outlook

**With the weak dollar and Middle East politics in ferment, gold is understandably in favour. However, the strong price rise has obviously dented underlying physical demand in some quarters – Turkey's 1H figures tell a revealing story. London pm fix short-term: \$600/oz-\$680/oz.**

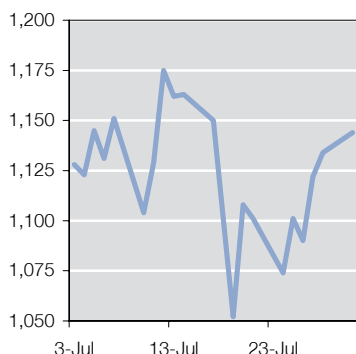
### Market data (July unless stated)

Prices	US\$/oz	Euro/oz	Rand/kg	ETF investment	Ounces	Lease rates	1m	3m	6m	12m	Option volatility (end month, %)	
Average	634	500	144,264	US	443,105	Average	0.09	0.08	0.09	0.11	1-month	28.00
High	663	525	152,679	UK	-	High	0.10	0.10	0.12	0.13	3-month	28.60
Low	606	479	136,773	Aus	2,385	Low	0.07	0.06	0.07	0.07	6-month	28.70
				S.Africa	3,872						12-month	28.60

Source: Prices: London Bullion Market Association, Others: Virtual Metals

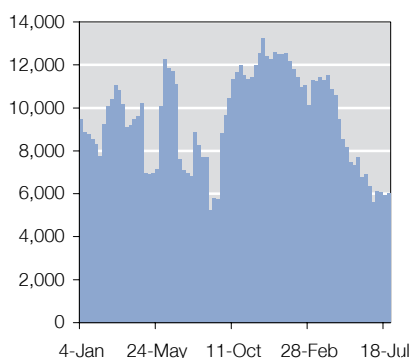
# Silver

Silver price (cents/oz)



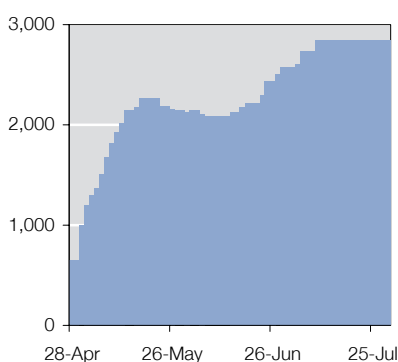
Source: London Bullion Market Association

Comex: Non-commercial net position (tonnes)



Source: Comex

Silver ETF offtake (tonnes)



Source: Barclay's Global Investors

## News

- August 2<sup>nd</sup>: Pan American Silver reported Q2 2006 net income of \$15m, more than 200% up from the same period last year, on higher output and sales.
- August 1<sup>st</sup>: Coeur d'Alene Mines reported Q2 2006 profits of \$34.4m compared with a loss of \$1.6m for the same period in 2005. The company attributed the improvement to much higher sales of silver, up 61%, while costs rose only marginally. Coeur d'Alene's production for the quarter was 3.2 Moz of silver, up from 2.6 Moz in Q2 2005.
- July 19<sup>th</sup>: Peru's silver production in May was 294.75t, an increase of 19.3% over May 2005.
- July 1<sup>st</sup>: Mexico, the world's biggest silver producer, saw output of more than 211t of silver in April, down 0.2% from April 2005. Production in May was up slightly vs. May 2005, at 224t.

## Analysis

- Tightly range-bound

Bema Gold Corporation gave an update on its Cerro Casale joint venture (with Arizona Star Resource Corporation) project in Chile, previously owned by Placer Dome, revealing that it will cost \$1.96bn in development costs but eventually pay off with a resource of more than 525t of gold, more than 2.2m tonnes of copper and more than 886t of silver, with a mine life of 17 years. Elsewhere in Latin America, Minefinders Corporation reported that its open cast Dolores gold and silver deposit in Chihuahua, Mexico, had raised its silver reserves estimates by 23.5% to almost 4,000t, as well as an increase of almost 25% in estimated gold reserves, to 139t.

The London Bullion Market Association reported that the number of silver ounces transferred in June fell to a daily average of 164.3m, a decline of 20% over the previous month. Based on a sharply lower average fixing of \$10.796/oz (\$2.65/oz lower than in May), the value fell to a daily average of \$1.77bn. The number of transfers declined from a daily average of 561 to 442. Measured year-on-year silver statistics were nevertheless higher across the board, with the number of ounces transferred up 33% and the number of transfers by 24.5%, while value nearly doubled.

## Outlook

The London daily fix for silver scarcely budged from \$11/oz throughout July and, despite suggestions from some quarters that \$15/oz or even \$20/oz is just around the corner, in fundamental terms silver badly needs some fresh, strong underlying physical/industrial demand support to justify much more than \$12/oz. The Barclays Global Investors silver-backed exchange traded fund (ETF) continued to accumulate in the first half of July, adding 232 tonnes to 2,843 tonnes, its highest yet, in the week ending 11<sup>th</sup> July. Since then however there have been no additions to the ETF.

**London fix short-term: \$11/oz-\$12/oz.**

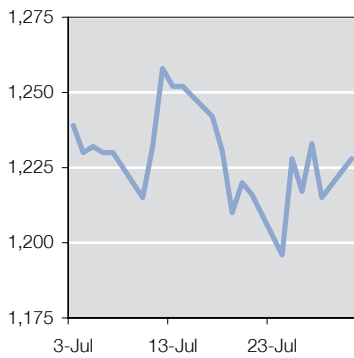
## Market data (July unless stated)

Prices	c/oz	e/oz	p/oz	Imports	kg	Lease rates	1m	3m	6m	12m	Option volatility (end month, %)	
Average	1,122.2	884.9	608.8	USA (May)	371,121	Average	1.68	2.51	2.93	3.91	1-month	45.50
High	1,175.0	926.4	641.2	Japan (Apr)	444,111	High	2.91	4.05	4.53	5.33	3-month	45.00
Low	1,052.0	840.3	574.4	China (Jun)	366,752	Low	0.46	0.70	1.47	2.47	6-month	44.50
											12-month	43.00

Source: Prices: London Bullion Market Association, Others: Virtual Metals

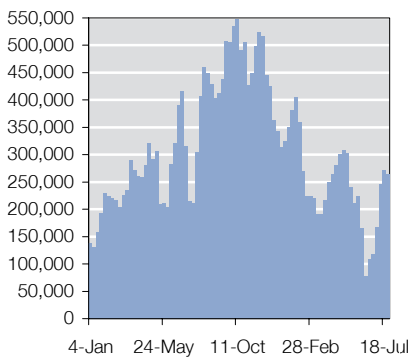
# Platinum

Platinum price (\$/oz)



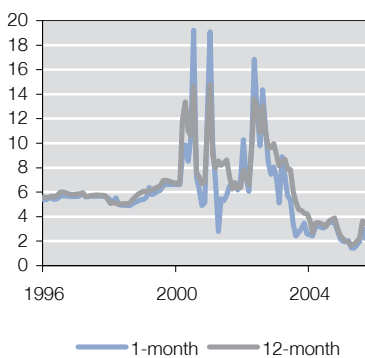
Source: London Platinum & Palladium Market

Nymex: Non-commercial net position (ounces)



Source: Nymex

Platinum lease Rates since 1996



Source: Reuters Ecowin

## News

- August 1<sup>st</sup>: Lonmin reported it is on track to produce 1 Moz of platinum for the full year, with output in the nine months ending 30<sup>th</sup> June of 751,759 oz.
- July 27<sup>th</sup>: The Australian-based company Platinum Australia has successfully completed a bankable feasibility study of its Smokey Hills project on the eastern limb of the UG2 reef in the Bushveld complex in South Africa, as reported by *Mining Weekly*. The project should shift into production phase by December, with production in 2008 of some 100,000 oz/year.
- July 19<sup>th</sup>: Anglo Platinum has been granted permission by a South African court to go ahead with its new mine at Ga-Tshaba; the new mine will eventually add some 230,000 oz/year to its production.
- July 3<sup>rd</sup>: Afplats announced it had increased its total measured, indicated and inferred mineral resources by 73% to 92 Moz (platinum, palladium, rhodium and gold) in its South African deposits.

## Analysis

- Holds onto recent gains

Signs of over-capacity in the LCD market came with the announcement by L G Philips, one of the world's biggest producers of LCD display panels, that it experienced a 6% fall in sales of its LCD panels (in value terms) in Q2 2006, to £2.44bn, from Q1 figures of £2.61bn, although that represented a rise of 0.3% over Q2 2005. The company blamed the fall on an industry-wide decline in the average selling prices across the TV, monitor and notebook segments, as well as sales volume growth failing to reach expectations and growing overcapacity in the LCD production market. It expects demand for LCD panels to be stronger in Q3 for seasonal purchasing reasons.

In the UK the Society of Motor Manufacturers and Traders (SMMT) reported that diesel-fuelled vehicles, which use platinum autocatalysts, comprised 38.9% of overall vehicle sales in June, a fresh record for diesel's market share, although total new car sales fell by 3.6% compared with the same month last year. In investment terms, the week ending 11<sup>th</sup> July saw a further rise in the net long positions on Nymex, up by 79,550 oz over the previous week, to 246,050 oz, although on TOCOM in Japan there was a decline of 35,817 oz. The week following saw a 26,150 oz increase in the Nymex net long, although this was offset by a 26,686 decline on TOCOM.

## Outlook

The London afternoon fix dipped below \$1,200/oz just once in July, at \$1,196/oz on the 24<sup>th</sup>. The weak dollar and continuing signs of diesel vehicles taking greater market share of passenger vehicle markets counter-balanced fears that a slowing global economy might dent industrial demand for platinum and, given the booming Chinese economy, China's wealthier jewellery-buyers might still feel affectionate towards the metal. London pm fix short-term: \$1,200/oz-\$1,300/oz.

Market data (July unless stated)

Prices	US\$/oz	Lease rates	1m	3m	6m	12m	Trade (kg)	Imports	Exports	Option volatility (end month, %)	
Average	1,229	Average	2.6	3.2	3.7	4.7	US (May)	5,471	5,205	1-month	28.5
High	1,258	High	5.4	5.5	5.6	5.7	Japan (Apr)	1,474	5,572	3-month	30.0
Low	1,196	Low	2.2	2.9	3.4	4.5	Hong Kong (Apr)	958	506	6-month	31.3
							Switzerland (June)	7,153	3,764	12-month	33.0
							China (Jun)	2,503	7		

Source Price: London Platinum and Palladium Market, Others: Virtual Metals

# Palladium

## News

- July 21<sup>st</sup>: Norilsk Nickel revised upwards its 2006 forecast for total palladium production to 3.05-3.1 Moz (against original forecasts of 2.9-2.95 Moz) and that of platinum to 720,000-730,000 ounces (690,000-700,000 oz). Output of palladium in 1H 2006 was 881,000 oz while that of platinum was 215,000, excluding output of Stillwater Mining Company, its USA subsidiary.
- July 14<sup>th</sup>: North American Palladium reported 2Q 2006 production of 57,326 oz, 22% up on the first quarter of the year and 19% higher than Q2 2005.

## Analysis

- \$300/oz looks less firm

New car registrations in the EU plus members of EFTA in June fell by 4.1% compared with the same month of 2005, to slightly more than 1.489m units, according to ACEA (the Association of European Automobile Manufacturers). However, new registrations for the Jan-June 2006 period rose by 1.3%, year-on-year, to 8.323m units. The steepest decline in June in the region's five main markets was in Italy, where new registrations fell by 12.6% (following an exceptionally good June in 2005 after the end of a road transportation strike), followed by a decline of 4.6% in Germany, 3.6% in the UK and 3.5% in Spain. The ACEA said the figures confirmed that "market conditions remain uncertain." In the USA automobile market, uncertainty is threatening to turn into outright slowdown; new sales of passenger vehicles in June on an annualised basis were 16.3m units, against 17.86m for the same month last year.

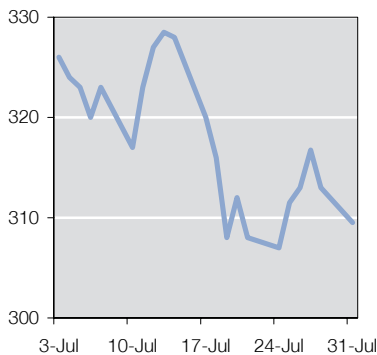
Meanwhile, the Chinese car market is still growing strongly. Passenger car sales increased by 36% in June compared to June 2005, with total sales volume 291,792 units. In the 1H 2006 China's passenger car sales rose by 63% to 1.78m. Total automobile sales increased to 379,907 in June, up 17% year-on-year, with total vehicle production in June of 423,037, again 17% up on the same month in 2005. China's car production increased by 27.8% year-on-year in 1H 2006, to 3.5m units, according to the National Development and Reform Commission. This year, Chinese car and commercial vehicle sales may rise to a record 6.5m units, according to the China Association of Automobile Manufacturers.

Palladium investors added 50,200 oz on Nymex in the week ending 11<sup>th</sup> July taking the net long position to 793,600 oz. The following week, ending 18<sup>th</sup> July, Nymex net longs added a further 48,500 oz.

## Outlook

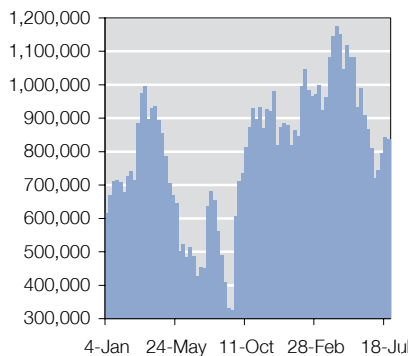
**The London daily afternoon fix threatened to nudge below \$300/oz in late July and, despite seeming to have bottomed-out at \$307/oz on 24<sup>th</sup> July, ended the month rather weakly below \$310/oz. Uncertainties over key car markets and the fledgling jewellery sector remain in place. London pm fix short-term: \$290/oz-\$320/oz.**

Palladium price (\$/oz)



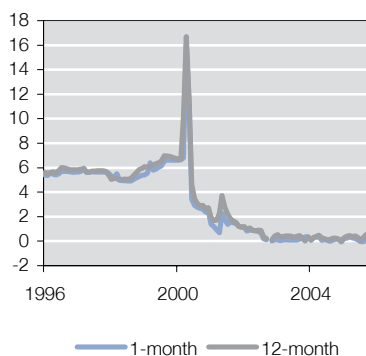
Source: London Platinum & Palladium Market

Nymex: Non-commercial net position (ounces)



Source: Nymex

Palladium lease Rates since 1996



Source: Reuters Ecowin

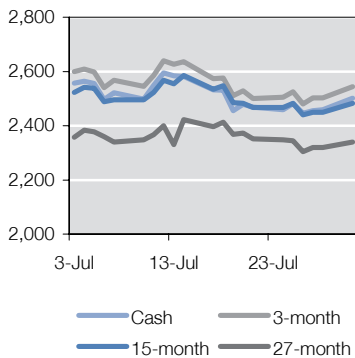
Market data (July unless stated)

Prices	US\$/oz	Lease rates	1m	3m	6m	12m	Trades (kg)	Imports	Exports	Option volatility (end month, %)	
Average	317.8	Average	0.28	0.40	0.69	0.92	US (May)	9,147	5,986	1-month	48.5
High	328.5	High	0.30	0.42	0.73	1.00	Japan (Apr)	1,113	240	3-month	46.0
Low	307.0	Low	0.24	0.39	0.64	0.84	Switzerland (June)	3,817	5,076	6-month	50.0
							China (Jun)	765		12-month	52.0
							Hong Kong (Apr)	1,643	259	24-month	53.0

Source: London Platinum and Palladium Market, Others: Virtual Metals

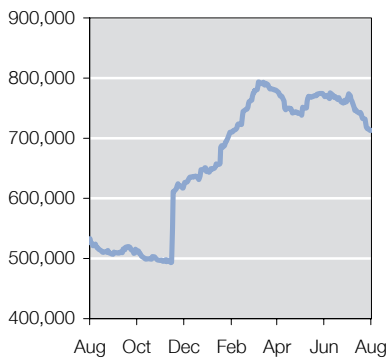
# Aluminium

## Aluminium price (\$/tonne)



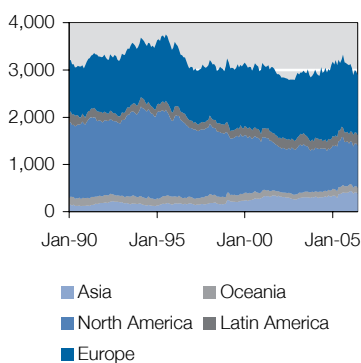
Source: London Metal Exchange

## Aluminium stocks (tonnes)



Source: London Metal Exchange

## Global stocks (Kt)



Source: Reuters Ecowin

## News

- July 13<sup>th</sup>: Russia produced in January-June 1.842 Mt of primary aluminium, 2% higher than the same period in 2005.
- July 12<sup>th</sup>: Brazil's aluminium production in 1H 2006 rose 8.9% to 791,300t compared with the same period in 2005, when total annual production was 1.499 Mt, according to Abal, the Brazilian Aluminium Association.
- July 10<sup>th</sup>: Alcoa, the world's biggest aluminium producer, reported Q2 profits up by 62% on the same quarter in 2005, to a record \$744m, as a result of higher metal prices and continued strong demand. Alcoa's aluminium price rose on average 38% in the quarter; operating profits in the raw aluminium division more than doubled to \$489m. Production rose to 882,000t, 1.7% up on Q1.
- July 7<sup>th</sup>: Yunnan Aluminium, one of China's three biggest smelters, plans to increase production by as much as 20% this year to achieve total output of some 380,000t. China's total aluminium output was 3.51 Mt in January-May, 17% up on the same period last year.
- July 4<sup>th</sup>: India's aluminium output in the first two months of the current fiscal year (beginning in April) was 186,231t, 22.2% up on the same period in 2005.

## Analysis

- Stuck around \$2,500/t

Total world aluminium output in June fell 70,000t to 1.954 Mt from 2.024 Mt in May, according to the International Aluminium Institute (IAI); June's figure was 12,000t higher than the same month in 2005. The IAI reported global aluminium inventories 70,000t lower in June at 2.993 Mt from a revised 3.063 Mt in May. Alain Belda, CEO of Alcoa, gave an upbeat estimate of future demand from China: "Demand is very, very solid. China continues to be short. They will be short aluminium and alumina for the year, and I think it will be in that condition through 2006, 2007, probably 2008 also. I don't see that changing at all." He expected global aluminium demand to double by 2020. Norsk Hydro forecast aluminium consumption would rise 5%-6% this year.

Alcan's planned smelter in the Coega development zone of South Africa's Eastern Cape is now looking increasingly likely to go ahead. *Mining Weekly* reported that Eskom, the South African power utility, and Alcan, had agreed an energy supply price. South Africa's Industrial Development Corporation said it was confident that Alcan would eventually construct a new 700,000t/year capacity smelter.

## Outlook

**Aluminium drifted sideways for much of July and given the increasing global smelter capacity from 2007 and ample inventories, this is as it should be. LME 3-month short-term: \$2,400/t-\$2,700/t.**

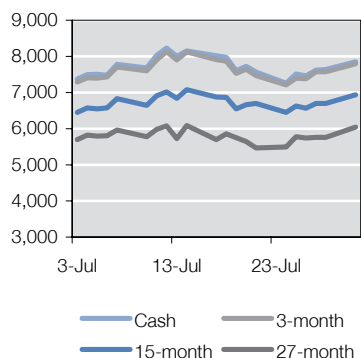
## Market data (July unless stated)

Prices (\$/t)	Cash	3-month	15-month	27-month	LME stocks	Tonnes	Prod (kt)	May	June	LME Open Interest (contracts)	
Average	2,511	2,557	2,505	2,360	Jun-06	760,900	Europe	714	680	Aluminium	780,834
High	2,590	2,640	2,585	2,423	Jul-06	713,500	Americas	668	644		
Low	2,445	2,480	2,440	2,305	Aug-06	713,500	Asia	294	281		
							Other	348	349		
							Total	2,024	1,954		

Source: London Metal Exchange, except Production: International Aluminium Association

# Copper

Copper price (\$/tonne)



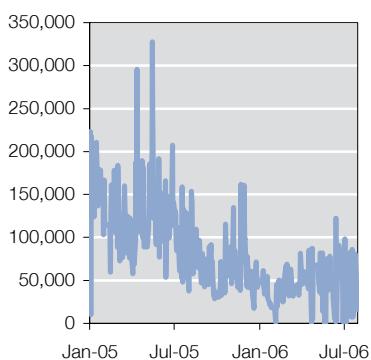
Source: London Metal Exchange

Copper stocks (tonnes)



Source: London Metal Exchange

Shanghai Futures Exchange, volume traded



Source: Reuters Ecowin

## News

- August 3<sup>rd</sup>: Rio Tinto said production from its Grasberg mine in Indonesia fell in 1H of 2006 to 207,745t against 289,391t in the same period of 2005.
- July 30<sup>th</sup>: The International Copper Study group (ICSG) said global refined copper production rose 30% to 16.45 Mt during 1996-2005.
- July 26<sup>th</sup>: Phelps Dodge reported net income of \$472m for 2Q 2006, 30% lower than the same period of 2005, partly on hedging losses.
- July 19<sup>th</sup>: Peru's copper production in May fell 2.1% to 81,520t against the same month in 2005.
- July 17<sup>th</sup>: Palabora Mining reported copper output rose by 8% in 1H 2006 to 5.42 Mt of copper ore, compared to the same period in 2005.
- July 14<sup>th</sup>: Grupo Mexico sacked all 2,000 workers at its La Caridad mine in an effort to break a strike which started in March, after the government permitted the cancellation of labour contracts with existing workers; the company plans to re-open La Caridad, which produced more than 122,000t of copper in 2005, with a new workforce.
- July 13<sup>th</sup>: China's Minmetals Corporation, the country's biggest metals trading firm, had a net loss of \$62.5m in 2H 2005/early 2006 on copper short positions of 65,000t on the LME. The net loss equates to more than 50% of the company's net profits for 2005.

## Analysis

- Supply-side worries underpin price

The narrow victory in Mexico's 2<sup>nd</sup> July presidential election for Felipe Calderon, which the leftist candidate, Andres Manuel Lopez Obrador, is disputing, could yet prove disruptive. The country's federal electoral court has until September to rule on the outcome; it could annul July's election and require a second ballot. Grupo Mexico said strikers at its Cananea mine in Mexico resumed work on 17<sup>th</sup> July after six weeks' strike. The strikes at Cananea and La Caridad have probably cost some 15,000t of copper cathode production. Mexico's National Statistics Institute reported the country's copper production fell almost 23% in May to 27,010t. Workers at Teck Cominco's Highland Valley mine in Canada (the country's biggest, with 179,000t produced in 2005, about 1% of global output) are scheduled to hold a strike vote in the week of 11<sup>th</sup> September, while difficult wage talks at Chile's Escondida, (2005 production of 1.27 Mt of copper) could see an all-out strike from 7<sup>th</sup> August; Escondida's workers rejected the latest management offer on 3<sup>rd</sup> August. These are all helping to keep supply-side worries front of mind.

## Outlook

Copper briefly revisited \$8,000/t in July and despite news that China's cathode and copper concentrate imports were down in 1H 2006 (by almost 44% to 387,275t and 2.8% to 1.79 Mt respectively) against last year, the price remains a hostage to supply-side concerns. Strike action at Escondida could help copper prices shift higher. LME 3-month short-term: \$7,500/t-\$8,800/t.

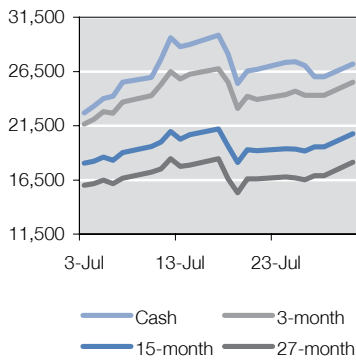
Market data (July unless stated)

Prices (\$/t)	Cash	3-month	15-month	27-month	LME stocks	Tonnes	LME Open Interest (contracts)
Average	7,712	7,628	6,720	5,799	Jun-06	93,500	Copper 343,049
High	8,233	8,129	7,080	6,085	Jul-06	97,450	
Low	7,261	7,210	6,450	5,470	Aug-06	97,450	

Source: London Metal Exchange

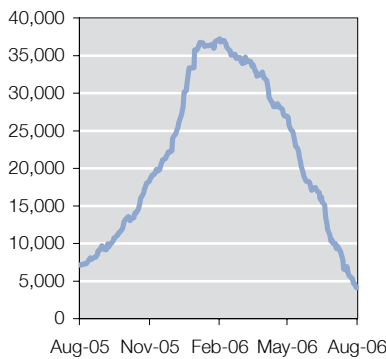
# Nickel

Nickel price (\$/tonne)



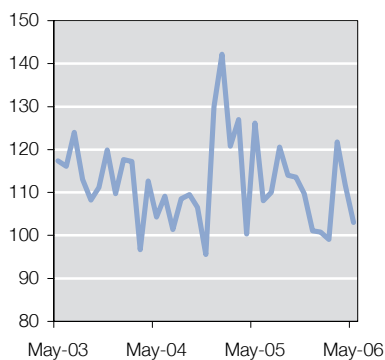
Source: London Metal Exchange

Nickel stocks (tonnes)



Source: London Metal Exchange

South Africa - Nickel production, volume 2000=100



Source: Reuters Ecowin

## News

- July 28<sup>th</sup>: Strike action started at Inco's Voisey's Bay, which produces some 54,000t/year (4% global output) cuts production by some 6,000t/day and the plant was put on care-and-maintenance.
- July 24<sup>th</sup>: Falconbridge reported 2Q 2006 net income of \$728m, more than three times higher year-on-year, on higher metal prices.
- July 23<sup>rd</sup>: Inco said its 2H 2006 earnings will more than double that of the first six months of the year, to some \$1.42bn, on the back of continuing high metal prices; 1H net profits were \$600m. Inco said its 2H forecast was based on copper and nickel prices remaining at levels seen so far in July.
- July 21<sup>st</sup>: Norilsk Nickel reported production for 1H 2006 of 121,000t of nickel; total production in 2005 was 243,000t.
- July 14<sup>th</sup>: Minara Resources lowered its 2006 nickel production target due to continued operational issues at its main Murrin Murrin facility in Western Australia. Total output is now forecast to be 31,000t-33,000t, against 34,000t-36,000t previously.
- July 12<sup>th</sup>: Russia's second largest nickel producer, Ufaleinickel, will increase its 2006 nickel output by 18%-27%, compared with 2005, to 13,000t-14,000t.
- July 4<sup>th</sup>: Australia's Mincor Resources reported output of 13,400t for the year ended 30<sup>th</sup> June, against 10,000t for the previous full year.

## Analysis

- 19-year high – more to come?

Inco reckons that 2006 is “the tightest nickel market we have ever seen” according to the company's marketing vice-president, Peter Goudie, who anticipated a global nickel deficit of some 30,000t. Goudie added: “We are unable to accept all orders for nickel from customers.” Inco's Q2 production rose to 63,557t, 26% up over the same period last year, with increased production from its Voisey's Bay operation in eastern Canada. Inco's total nickel production this year will be some 261,000t, according to the company. Inco's problems in New Caledonia with its Goro project are shaping-up for another testing phase, after two Kanak protest groups issued an ultimatum in late July for all construction work on the project to be stopped before 24<sup>th</sup> September, claiming Goro does not meet environmental standards. The Kanak opponents said they will hold no more talks with Goro Nickel, Inco's New Caledonia subsidiary; in response the company said it now has all the necessary permits and will not halt the project.

## Outlook

**Nickel took flight on the LME in July thanks to a rebounding stainless steel market and news of further delays and cost overruns in some of the bigger projects. The fight between Phelps Dodge and Xstrata to gain control of Inco and Falconbridge will have a longer-term impact on nickel but it's far too early to say precisely what. But if the stainless market remains robust the mid-term outlook for nickel is very bullish. LME 3-month short-term: \$24,000/t-\$29,000/t.**

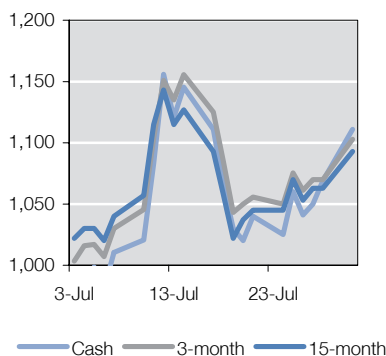
Market data (July unless stated)

Prices (\$/t)	Cash	3-month	15-month	27-month	LME stocks	Tonnes	LME Open Interest (contracts)
Average	26,586	24,327	19,468	16,945	Jun-06	9,990	Nickel 74,231
High	29,850	26,750	21,200	18,475	Jul-06	4,128	
Low	22,690	21,600	18,050	15,300	Aug-06	4,128	

Source: London Metal Exchange except Option volatility: Virtual Metals

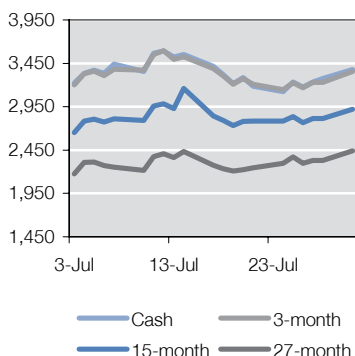
## Lead & Zinc

Lead price (\$/tonne)



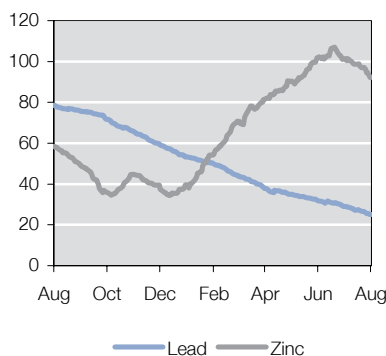
Source: London Metal Exchange

Zinc price (\$/tonne)



Source: London Metal Exchange

Stocks on LME (Jan. 1<sup>st</sup> 2004 = 100)



Source: Virtual Metals from LME

### News

- July 25<sup>th</sup>: Teck Cominco said its Trail smelter produced 72,800t in 2Q 2006, 1,400t more than the same period in 2005.
- July 24<sup>th</sup>: Zinifex reported lead and zinc concentrates production of 1.575 Mt for its 2005-2006 year, against 1.559 Mt the previous year.
- July 19<sup>th</sup>: Acadian Gold Corporation of Halifax, Nova Scotia, said production at its Gays River zinc-lead project and production could begin in Q1 2007, with annual production of more than 18,000t of zinc and some 7,500t of lead.
- July 19<sup>th</sup>: Peru's Volcan Compania Minera said its 2Q zinc production rose 7.2% to 71,126t compared with the same period in 2005.
- July 18<sup>th</sup>: Hindustan Zinc, a subsidiary of Vedanta Resources, reported refined zinc production in Q2 2006 rose 45% to 82,240t; refined lead output more than doubled to 10,517t, compared with the same period last year.
- July 18<sup>th</sup>: Korea Zinc, the world's largest zinc smelter by output, said net income for Q2 2006 was up 325.5%, mainly due to high zinc prices, and equivalent to \$111.3m.
- July 3<sup>rd</sup>: Vancouver-based EuroZinc Mining started zinc production at its Neves-Corvo mine in Portugal; it expects to process ore at an annual rate of 350,000t, equivalent to 25,000t of zinc concentrate.

### Analysis

- Zinc deficit widening

Xstrata lodged a new environmental mining plan for the planned extension of its McArthur River zinc-and-lead mine in the Northern Territory of Australia, which it is trying to convert into an open-pit operation and extend the mine's life by 25 years. The original proposal was rejected by the Territory's government in March. McArthur River's general manager, Brian Hearne, said: "We stand some chance of this project being approved." Xstrata threatened earlier this year to close the mine – removing some 3% of global zinc supply – if it did not receive government approval to shift to open cast mining. The final outcome is unlikely to be known until late this year.

The International Lead and Zinc Study Group (ILZSG) reported global zinc supply was 120,000t less than demand during Jan-May this year, with strong demand for steel galvanizing underpinning the deficit. This compared with a shortfall of 98,000t for the same period of 2005. The ILZSG said demand rose 2.4% to 4.47 Mt, while production grew 1.9% to 4.35 Mt. Lead production outpaced consumption in the first five months by 76,000t, according to the ILZSG; demand rose 6.2% to 3.29 Mt while supply rose a substantial 10% to 3.36 Mt.

### Outlook

Zinc prices on the LME remained tepid in July despite further signs of the widening global deficit, while lead was tightly range-bound. The zinc deficit sooner or later will regain investor intention but that might not be the case until late 2006. LME 3-month short-term: zinc \$3,000/t-\$3,600/t; lead \$1,000/t-\$1,200/t.

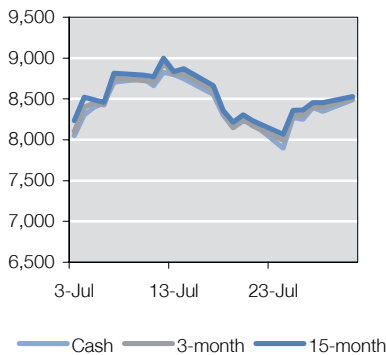
Market data (July unless stated)

Prices (\$/t)	Cash Lead	Cash Zinc	3-month Lead	3-month Zinc	LME stocks	LME Open Interest (contracts)	
						Lead	Zinc
Average	1,069	3,340	1,069	3,327	Jun-06	111,675	214,925
High	1,156	3,591	1,156	3,595	Jul-06	101,725	185,175
Low	1,004	3,126	1,004	3,146	Aug-06	101,725	185,175

Source: London Metal Exchange except Option volatility: Virtual Metals

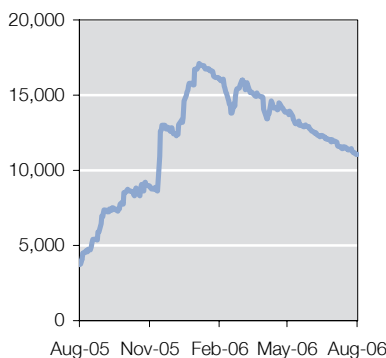
## Tin

### Tin price (\$/tonne)



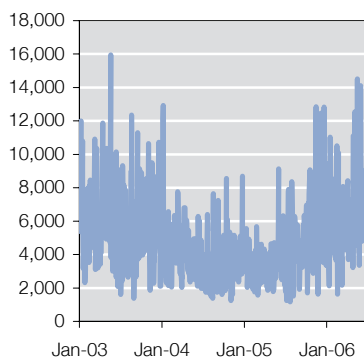
Source: London Metal Exchange

### Tin stocks (tonnes)



Source: London Metal Exchange

### Tin LME futures trading volume (monthly), contracts



Source: LME

### News

- July 19<sup>th</sup>: Peru reported its tin production in May fell 10.5% to 3,316t against the same month of 2005.
- July 11<sup>th</sup>: Yunnan Tin, China's leading tin producer, said it had started production at its new plant in Singapore, bringing its total capacity to 25,000t/year of refined tin, 4,000t/year of tin chemical products and 7,000t/year of other tin products.
- July 1<sup>st</sup>: Bluescope Steel said it would close Australia's only tin mill at Port Kembla, which produces tin-plate and has been loss-making for some time.

### Analysis

- Refined deficit so far this year

The global tin market saw a market deficit of 6,500t during January-May 2006 according to the World Bureau of Metal Statistics (WBMS). The deficit was calculated after allowing for reported deliveries by the USA's Defence Logistics Agency (DLA). The WBMS said production of refined tin during the same period was up by 11% to 150,000t (compared with the first five months of 2005) while DLA deliveries were 7,600t, bringing the total availability to 158,000t. Demand was 164,000t, with the shortfall being made up by stock drawdowns from the LME. Tin mine production was almost 138,000t higher, up 5% on the total for the first five months of 2005, with all the additional output deriving from China. In May, world refined production was 32,700t, while demand was 33,900t. Global tin demand between January-May increased by 25,000t, with China up by 26%, Japan by 30% and the USA by 26%. Global stocks at the end of May (excluding DLA stocks) were 33,100t, 5,200t below those at the end of 2005.

Indonesia's state-owned P T Timah said it will cut its production in 2006 in order to maintain high prices for its products. The company intends to reduce its output from 41,799t in 2005 to 38,407t this year. The president of P T Timah, Thobrani Alwi, said that the tin price could go as high as \$12,000/t, although he blamed illegal tin miners in Indonesia for holding-back prices and profits. He added that such illegal mining's output "could be higher than P T Timah's." Indonesia's total refined tin production this year prior to the announcement by P T Timah was due to be between 110,000t-120,000t.

### Outlook

**Tin prices on the LME in July benefited from concern that the metal's increased demand might be significantly outstripping production, and that was certainly the deduction of the WBMS. The LME's 3-month contract reached its settlement peak on the 12<sup>th</sup>, at \$8,940/t, although by the 24<sup>th</sup> it had slid back to \$7,995/t. The intrinsic opacity of tin data leaves room for considerable speculation but it will take significantly more cutbacks than the 3,392t promised by P T Timah to push the price as high as \$12,000/t. The LME's tin stocks remain at a comfortable level, above 11,000t. LME 3-month short-term: \$8,000/t-\$9,000/t.**

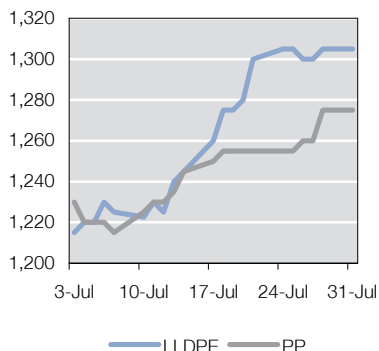
### Market data (July unless stated)

Prices (\$/t)	Cash	3-month	15-month	LME stocks	Tonnes	LME Open Interest (contracts)
Average	8,419	8,453	8,513	Jun-06	11,945	Tin 20,952
High	8,825	8,940	9,000	Jul-06	11,065	
Low	7,900	7,995	8,065	Aug-06	11,065	

Source: London Metal Exchange except Option volatility: Virtual Metals

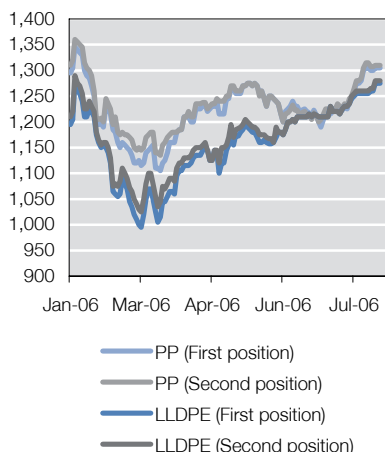
## Plastics

Plastics prices, nearest contract, LME (\$/tonne)



Source: Virtual Metals from LME

Plastics prices, various contracts, LME (\$/tonne)



Source: Virtual Metals from LME

### News

- July 27<sup>th</sup>: Sabic, the Saudi polyolefin and petrochemicals group, said it was opening a logistics hub in Kutno, Poland, which would be operational from January 2007. The hub would be used for its expansion drive into central and eastern Europe, which it considers a key growth market for future polymer demand.
- July 24<sup>th</sup>: Total Petrochemicals said it will close its 60,000t/year thermoplastic elastomer plant in Antwerp, citing “the relocation to Asia of both consumption and production processes” have made the plant uncompetitive.
- July 24<sup>th</sup>: Sabic reported net profits equivalent to \$1.23bn for Q2 2006.
- July 21<sup>st</sup>: The Swiss polymers and fine chemicals producer Ems-Chemie reported an 11.5% increase in sales in 1H 2006 to CHF 706m (€455m).
- July 19<sup>th</sup>: Ineos Polyolefins declared force majeure on LDPE deliveries from its 200,000t/year plant at Cologne, which was damaged by a fire and an explosion on 3<sup>rd</sup> July.
- July 19<sup>th</sup>: The Swedish polymer group, Trelleborg, reported a 5.8% fall in Q2 2006 operating profit to SEK507m (€55m) and SEK975m (€105m) for 1H 2006, an increase of 4.6% from last year.

### Analysis

- Higher crude oil price

Dow Europe announced that as from 1<sup>st</sup> August it would raise prices by €80/t across Europe for all of its PE resins. The company said the “continuous rise in the cost of oil and the effect it has on raw materials is placing too great a pressure on our margins for polyethylene.” The rise applies to commodity LDPE and HDPE resins, along with the speciality products. Other European producers were reportedly trying to push through price rises in the region of €50/t-€80/t, on the back of record high crude oil prices and a perception that Middle East tensions could see the oil price rise still further in the coming weeks. High plastic resin prices are beginning to impact end-users in the USA, according to a business survey conducted by *Purchasing* magazine in June; it found that 57% of buyers said they saw plastic resins increasing in price, up from 50% in May, and 55% expect further price increases in the next three months. In May, 7% of buyers said they planned on decreasing their spend on resins in the coming month; this had increased to 30% in June.

Saudi Aramco said it had selected Dow as its “potential partner” in the chemicals and plastics complex at Ras Tanura refinery complex. The joint venture, if concluded, will include a number of facilities “producing a very broad portfolio of plastics and chemical products,” according to the companies. Owned by the Saudi government, Saudi Aramco has proven reserves of 260 billion barrels of oil, equivalent to nearly one quarter of the world total and also operates the world’s fourth largest gas reserves.

### Outlook

**PP and LLDPE prices rose to levels not seen since February although volumes traded on the LME remained relatively light. High feedstock prices, including ethylene, look dug-in for the coming weeks. Short-term: LLDPE \$1,300/t-\$1,390/t; PP \$1,290/t-\$1,350/t.**

#### Market data (July unless stated)

Average prices Contract	Volumes (July)		Open Interest (contracts)			
	LLDPE	PP	LLDPE	PP		
First position	1,261.07	1,243.81	Daily average 44	29	354	298

Source: London Metal Exchange

## Indices

### Precious and base metal prices

(1999 Avg.=base 100) 31 <sup>st</sup> July 2006	Change from						
	Current	1 M	1 Yr		5 Yr		
Gold (spot)	227	3% ↑	220	47% ↑	154	136% ↑	96
Silver (spot)	219	7% ↑	205	60% ↑	137	169% ↑	81
Platinum (spot)	324	0% ↑	324	37% ↑	237	130% ↑	141
Palladium (spot)	85	-1% ↓	86	61% ↑	53	-42% ↓	147
Aluminium (cash)	184	-2% ↓	187	36% ↑	135	76% ↑	104
Aluminium (3m)	183	-2% ↓	187	37% ↑	134	76% ↑	104
Aluminium (15m)	173	-1% ↓	175	39% ↑	124	66% ↑	104
Aluminium (27m)	160	0% ↓	161	36% ↑	117	57% ↑	102
Copper (cash)	499	5% ↑	477	108% ↑	240	415% ↑	97
Copper (3m)	486	5% ↑	463	120% ↑	221	404% ↑	96
Copper (15m)	413	5% ↑	394	140% ↑	172	328% ↑	97
Copper (27m)	352	4% ↑	339	132% ↑	152	266% ↑	96
Nickel (cash)	452	22% ↑	370	88% ↑	240	358% ↑	99
Nickel (3m)	419	20% ↑	349	79% ↑	234	332% ↑	97
Nickel (15m)	351	16% ↑	303	58% ↑	222	262% ↑	97
Nickel (27m)	312	15% ↑	271	48% ↑	210	220% ↑	97
Zinc (cash)	314	4% ↑	303	172% ↑	115	297% ↑	79
Zinc (3m)	307	3% ↑	299	166% ↑	115	284% ↑	80
Zinc (15m)	268	6% ↑	252	131% ↑	116	209% ↑	87
Zinc (27m)	223	7% ↑	209	99% ↑	112	148% ↑	90
Lead (cash)	221	16% ↑	190	27% ↑	173	141% ↑	92
Lead (3m)	216	11% ↑	195	29% ↑	167	134% ↑	92
Lead (15m)	207	10% ↑	189	34% ↑	155	120% ↑	94
Tin (cash)	157	7% ↑	147	18% ↑	133	95% ↑	81
Tin (3m)	157	5% ↑	149	20% ↑	131	94% ↑	81
Tin (15m)	157	4% ↑	151	22% ↑	129	88% ↑	84

### LME base metals stocks

(1999 Avg.=base 100) 31 <sup>st</sup> July 2006	Change from						
	Current	1 M	1 Yr		5 Yr		
Aluminium	91	-6% ↓	97	34% ↑	68	9% ↑	84
Copper	13	4% ↑	12	215% ↑	4	-85% ↓	86
Lead	75	-9% ↓	82	57% ↑	48	-2% ↓	76
Nickel	8	-59% ↓	18	-41% ↓	13	-75% ↓	31
Tin	119	-7% ↓	129	192% ↑	41	-45% ↓	216
Zinc	63	-14% ↓	73	-68% ↓	197	-40% ↓	104

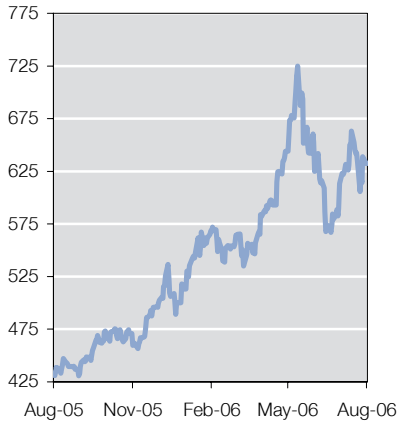
### USD exchange rates

(1999 Avg.=base 100) 31 <sup>st</sup> July 2006	Change from						
	Current	1 M	1 Yr		5 Yr		
European euro	84	0% ↓	84	-5% ↓	89	-32% ↓	124
Canadian dollar	76	2% ↑	74	-8% ↓	82	-27% ↓	103
Great British pound	87	-1% ↓	88	-6% ↓	92	-24% ↓	114
Japanese yen	100	0% ↓	100	2% ↑	98	-8% ↓	110
South African rand	116	-3% ↓	119	6% ↑	110	-14% ↓	134
Australian dollar	85	-3% ↓	88	-1% ↓	86	-33% ↓	127

Source: Virtual Metals & London Metal Exchange

# Prices

**Gold (\$/oz)**



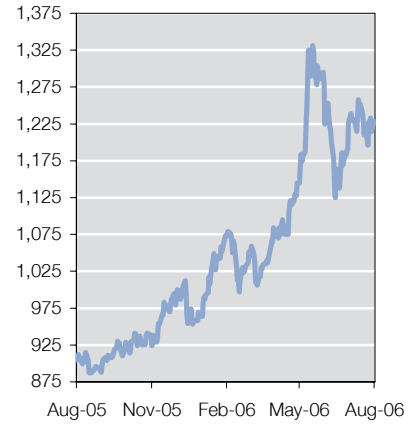
Source: London Bullion Market Association

**Silver (cents/oz)**



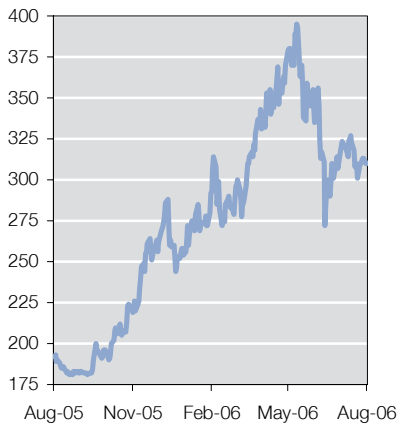
Source: London Bullion Market Association

**Platinum (\$/oz)**



Source: London Platinum & Palladium Market

**Palladium (\$/oz)**



Source: London Platinum & Palladium Market

**Aluminium (\$/tonne)**



Source: London Metal Exchange

**Copper (\$/tonne)**



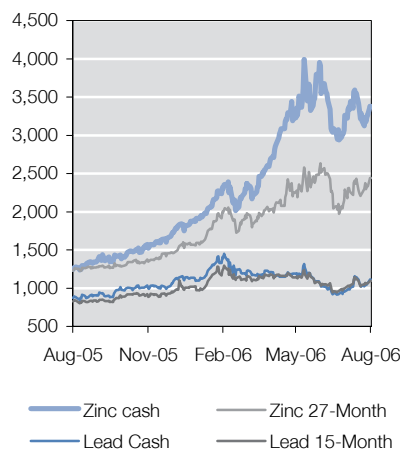
Source: London Metal Exchange

**Nickel (\$/tonne)**



Source: London Metal Exchange

**Lead & zinc (\$/tonne)**



Source: London Metal Exchange

**Tin (\$/tonne)**



Source: London Metal Exchange

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Virtual Metals comprises a uniquely skilled team, with a collective 50 years' experience in the precious metals markets and all that this implies – a plethora of market contacts and personal networks of long-standing trust and wisdom. Our clients include world-class mining companies, for whom Virtual Metals specialises in proprietary research covering gold, silver and the platinum group metals.

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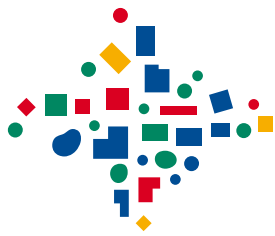
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