

Fortis metals monthly

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Gold, silver, platinum,
palladium, aluminium, copper,
nickel, lead & zinc, tin, plastics.

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Metals and plastics – Strategic view

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Introduction

2006 saw strong price rises across the metals' spectrum and it would be miraculous if 2007 saw a repeat performance. Friday 5th Jan saw a minor rout of copper on the LME – meaning its biggest weekly fall in 10 years – with most other base metals drawn lower in its wake. In the short-term we expect weakness to persist in most base metals, while the precious metals are currently a hostage to the uncertainty of the US dollar's trajectory.

Gold

More than any other of the metals, gold's immediate fate is bound up with the US currency. The USA Federal Reserve would undoubtedly like to cut interest rates – which should weaken the dollar and thus benefit gold – but inflationary fears may see rates cut by less, and more slowly, than imagined.

Silver

With zinc and lead prices so high there's plenty of incentive to re-start old projects and look for new – which will ensure new silver supply too. Silver was the star of precious metals in 2006, but short-term it will track gold.

Platinum

A period of relative weakness but probably remaining pinned to the \$1,000/oz level is the most likely immediate outlook. Longer term, the prospect exists of greater supply but industrial demand should stay strong.

Palladium

Palladium's prospects are still essentially wedded to vehicle sales, which right now face an uncertain future in developed markets although longer-term they should be buoyant elsewhere.

Aluminium

With a global market in almost complete balance, there is little scope for pushing prices higher right now.

Copper

The New Year started badly for copper but this was essentially a continuation of the story for 2H 2006. Much hinges on whether or not China shows evidence of stock rebuilding in 1H 2007, but many possible tensions (labour disputes and new projects) seem resolved and this could weigh on prices yet further.

Nickel

We see scope for nickel to benefit yet further from a continued supply shortfall, and of all base metals this could be most resistant to a bearish downturn.

Lead and zinc

Lead should begin to weaken as vehicle battery seasonal demand slows, but zinc is different – new supply is still lagging strong demand and recent weakness could be short-lived.

Tin

Uncertainties over Indonesia's on-going internal campaign to stamp out unlicensed operations have pushed prices higher; the dispute will hang over the market a while yet.

Plastics

Lower crude oil prices could depress plastics futures for some time to come.

Forecasts

| Price forecasts | | End-December | 1-month | 2-month | 3-month | 12-month |
|--------------------------------|--------------|--------------|---------------|---------|---------|----------|
| Gold | \$ per oz | 632 | 590-630 | 600 | 650 | 640 |
| Silver | \$ per oz | 12.90 | 12-14 | 12-14 | 14 | 13 |
| Platinum | \$ per oz | 1,118 | 1,000-1,100 | 1,000 | 1,000 | 1,100 |
| Palladium | \$ per oz | 324 | 320-360 | 340 | 380 | 300 |
| Aluminium (3-month) | \$ per tonne | 2,800 | 2,400-2,800 | 2,500 | 2,500 | 2,300 |
| Copper (3-month) | \$ per tonne | 6,330 | 5,200-5,900 | 5,500 | 6,000 | 5,800 |
| Nickel (3-month) | \$ per tonne | 33,305 | 32,000-36,000 | 35,000 | 35,000 | 30,000 |
| Lead (3-month) | \$ per tonne | 1,685 | 1,500 | 1,500 | 1,400 | 1,200 |
| Zinc (3-month) | \$ per tonne | 4,251 | 3,200-3,700 | 3,500 | 3,500 | 4,500 |
| Tin (3-month) | \$ per tonne | 11,800 | 10,000-11,000 | 11,000 | 11,000 | 10,000 |
| Plastic: LL (September) | \$ per tonne | 1,115 | 1,100-1,190 | 1,000 | 1,000 | 950 |
| Plastic: PP (September) | \$ per tonne | 1,170 | 1,100-1,170 | 1,050 | 1,050 | 1,000 |
| | | 2-years | 3-years | 4-years | 5-years | 6-years |
| Gold | \$ per oz | 550 | 490 | 450 | 450 | 400 |
| Silver | c per oz | 10 | 9 | 9 | 9 | 9 |
| Platinum | \$ per oz | 1,300 | 1,200 | 1,000 | 900 | 900 |
| Palladium | \$ per oz | 280 | 280 | 250 | 230 | 230 |
| Aluminium (3-month) | \$ per tonne | 2,000 | 2,000 | 2,000 | 1,900 | 1,900 |
| Copper (3-month) | \$ per tonne | 5,400 | 5,000 | 4,000 | 4,000 | 3,500 |
| Nickel (3-month) | \$ per tonne | 25,000 | 20,000 | 15,000 | 14,000 | 13,000 |
| Lead (3-month) | \$ per tonne | 1,000 | 900 | 900 | 800 | 800 |
| Zinc (3-month) | \$ per tonne | 3,500 | 3,000 | 2,500 | 2,500 | 2,000 |
| Tin (3-month) | \$ per tonne | 9,000 | 8,500 | 8,500 | 8,000 | 8,000 |
| Plastic: LL (September) | \$ per tonne | 1,100 | 1,000 | 1,000 | 1,000 | 1,000 |
| Plastic: PP (September) | \$ per tonne | 1,100 | 900 | 900 | 900 | 900 |

Source: Virtual Metals

Analysis

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Dubai wants to go places

While it is too much to hope that 2007 will repeat the price rises of last year, it is already shaping up to be a year of exciting new developments, not least in the evolution of futures' exchanges. One of those to watch could well be the relative newcomer, the Dubai Gold & Commodities Exchange (DGCX, which is part of the government owned Dubai Multi Commodities Centre or DMCC), which in December seemed to steal some thunder from the LME by boldly announcing something that has long been mooted by the LME – a futures contract in steel.

Colin Griffith, the DGCX's chairman, said that a first steel contract – for prime steel reinforcement bars, with a minimum contract size of 10t and priced in US dollars – would be trading by the end of Q1 2007. The DGCX currently offers futures contracts in gold, silver, fuel oil and three currencies (the euro, yen and sterling) and, in its first full year of operations in 2006, had a trading volume of \$11.5bn. This first steel contract would be for delivery in Dubai, Abu Dhabi and Fujairah but a second planned contract, for international delivery, could be launched in 2008.

LME will stick to its knitting, mostly

The LME, under its new CEO Martin Abbott, announced its own strategy on 4th January, terming it a "2 by 2" growth strategy. Rejecting the idea of either selling or floating the member-owned exchange the LME will try to capture more OTC business as well as focus on its non-ferrous futures contracts. The LME also said that it would be pressing ahead with its own steel futures contracts (as well as steel OTC business) and "bilateral and cleared OTC contracts in other metals" which, according to some news reports (although the LME itself did not specify), could include minor metals such as cobalt and molybdenum. The LME is well aware that its pre-eminent position as the global non-ferrous metals' exchange is under pressure: Nymex recently launched mini-contracts settled against LME prices and the Chicago Mercantile Exchange and the Chicago Board of Trade are in the process of merging, and the combination of these two ambitious exchanges could pose a threat, longer-term.

First-mover but sluggish?

The LME has one big advantage over the new boys on the block – its weight of history, and the experience that gives, encourages widespread belief that it will shrug off new challengers. Yet being the first-mover is perhaps only a significant advantage if that is accompanied by nimble sure-footedness. The recent history of new LME launches is not encouraging: its silver contracts failed to gain sufficient trading momentum and were quietly buried; its plastics contracts have yet to establish themselves widely among the end-user community and, in volume terms, have been relatively unimpressive so far; and its electronically-traded mini-contracts (launched early December 2006) are yet too new to be really judged as to whether or not they have support from where it most counts – traders.

The promised launch by the DGCX of a steel futures contract, albeit one limited to regional delivery, throws down the gauntlet, as the LME has been pondering a steel contract for at least two years, without as yet garnering much enthusiasm (at least publicly) from steel producers. If the DGCX could get an internationally delivered steel futures' contract up and running in 2008 before the LME does then it would be something of a PR coup, if nothing else, for such a fledgling exchange. On the other hand the sheer longevity of the LME argues that its core business as the leading global exchange for key base metals should see it through the turbulent times ahead. After all, it survived the failure of its silver contract and it can probably survive the failure of other new ventures too – if that happened.

Focus

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Looking ahead to 2007

2006 was remarkable by any standards for both base and precious metals, with even the poorest performer (perhaps surprisingly enough, platinum) gaining 16% year-on-year. The past – even the recent past – is of course a poor guide to the future, and, given the ruckus among base metals (copper especially) in the first week of trading of January, forecasting for the current year is more of a hostage to fortune than normal. Yet we believe that in fundamental terms at least some of last year's front-runners may do well again in 2007. Here we assess the gains made in 2006 and consider what might occur for the individual metals in 2007. All base prices refer to the official settlement prices for the LME's benchmark three-month contract; those for precious metals to the daily London pm fix (in the case of gold, platinum and palladium) or the daily London fix (for silver). The time-span for our calculations for price movements during the year commences with the closing prices of 30th December 2005, as they provide the starting point for the opening of trading on the first day's trading of 2006, 3rd January.

Metal and plastics prices in 2006

| | Open | End-Jun | Close | Average | H1 % change | H2 % change | Annual % change | Peak | Low | Range |
|------------------|--------|---------|--------|---------|----------------|----------------|--------------------|--------|--------|--------|
| Aluminium | 2,285 | 2,596 | 2,800 | 2,591 | 14 | 8 | 23 | 3,240 | 2,270 | 970 |
| Copper | 4,433 | 7,431 | 6,330 | 6,666 | 68 | (15) | 43 | 8,590 | 4,397 | 4,193 |
| Lead | 1,059 | 992 | 1,685 | 1,281 | (6) | 70 | 59 | 1,770 | 940 | 830 |
| Nickel | 13,480 | 21,250 | 33,305 | 23,228 | 58 | 57 | 147 | 34,695 | 13,480 | 21,215 |
| Tin | 6,600 | 8,080 | 11,800 | 8,748 | 22 | 46 | 79 | 11,800 | 6,580 | 5,220 |
| Zinc | 1,917 | 3,261 | 4,251 | 3,245 | 70 | 30 | 122 | 4,515 | 1,917 | 2,598 |
| Plastics (LLDPE) | 1,180 | 1,225 | 1,120 | 1,225 | 4 | (9) | (5) | 1,360 | 1,090 | 270 |
| Plastics (LL) | 1,108 | 1,210 | 1,170 | 1,185 | 9 | (3) | 6 | 1,360 | 1,025 | 335 |
| Gold | 513 | 614 | 632 | 603 | 20 | 3 | 23 | 725 | 513 | 212 |
| Silver | 883 | 1,070 | 1,290 | 1,154 | 21 | 21 | 46 | 1,494 | 883 | 611 |
| Platinum | 964 | 1,226 | 1,118 | 1,142 | 27 | (9) | 16 | 1,355 | 964 | 391 |
| Palladium | 258 | 312 | 324 | 320 | 21 | 4 | 25 | 404 | 258 | 146 |

Source: Virtual Metals

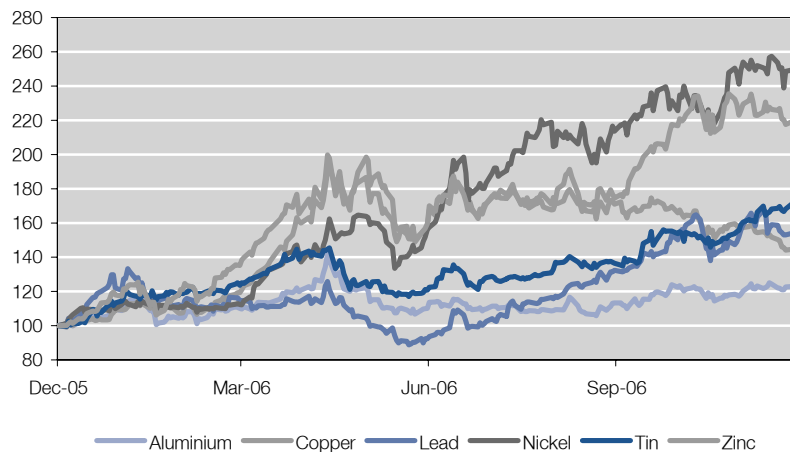
2006 - highlights

2006 was something of a spooky year for most metals, not least **copper**, and it had nothing to do with copper's averaging \$6,666/t. Copper first hesitantly broke through the \$5,000/t barrier on 3rd February, having started trading at \$4,433/t, close to what proved to be its lowest point for the year, \$4,397/t (3rd January). Thereafter it was a fairly steady climb to the peak of \$8,590/t on 12th May, driven higher by supply-side concerns, shrinking stocks in global exchanges, and the apparently insatiable appetite of China for refined copper, all of which attracted speculative investment interest. Yet although 2006 will probably long be remembered as a glorious year for copper bulls, in fact, for the superstitiously-inclined, the metal only traded at and above \$8,000/t for 13 days last year, the last of which was 10th August, when it clung onto that giddy height by the skin of its teeth, at \$8,002/t; from then on it drifted sideways until it shed almost 5% on 13th November and dropped below \$7,000/t for the first time since the end of June. On the final trading day of last year (28th December) it settled at \$6,330/t, which superficially would appear to be a terrific result for a metal which, two years ago, no-one expected to reach \$4,000/t, but in reality was a relatively weak finish. In the second half of 2006 it fell by 15%, compared with a 68% gain in the first half. So far in 2007 of course it has slid even further, settling at \$5,535/t on 8th January.

If the story for copper was one of considerable volatility at either end of the year, that for **aluminium** was the opposite. Aluminium was the poorest performer of the base metals traded on the LME, but by 'normal' standards a gain of 23% over the year would be regarded as a very healthy return. In fundamental terms very little news surfaced with regard to aluminium in 2006, except for large-scale planned new smelters in developing economies (especially in the Middle East) and collapsing

alumina prices (down more than 60%) and falling energy costs (of natural gas particularly), all of which played their part in restraining prices. The relatively small global deficit of primary aluminium – perhaps 300,000t, or less than a week's global consumption – together with relatively stable exchange stocks and inventories did little to encourage speculative investors to enter the arena. Aluminium kicked off 2006 at \$2,285/t and closed the year at \$2,800/t, having touched a peak of \$3,240/t relatively early, on 11th May, drawn along in the wake of copper's strength at that time. Aluminium's trading range of \$970/t was undershot only by that of lead, at \$830/t, and that on a far smaller starting price.

Base Metals in 2006 (end-05 = 100)



Source: Fortis

Lead was perhaps the biggest surprise of the year, given its unfavourable fundamentals (a globally shrinking market in electronics' soldering thanks to tightening environmental legislation, its plentiful mine supply as a by-product of silver and zinc, and the increasing use of recycled metal in countries such as the USA with the tightest restrictions on lead use). Its relatively shabby success in 2005 – up just 4.7%, year-on-year – added nothing to encourage a more positive outlook, but investors in lead at the beginning of 2006 who stayed the course could congratulate themselves on turning in a bigger gain (59%) than any precious metal – only silver came close, at 46%. In the first half of the year lead actually fell by 6%, but in the second half recorded an enormous 70% gain, partly on supply-side concerns. It nudged close to \$1,400/t briefly in early February but then drifted all the way down to \$940/t, its low of the year, on 20th June, not revisiting \$1,400 again until the final day's trading in September, rising to its peak of \$1,770/t on 11th December, amid sparse bullish news and coinciding with seasonal increased demand for failing car batteries in the northern hemisphere winter.

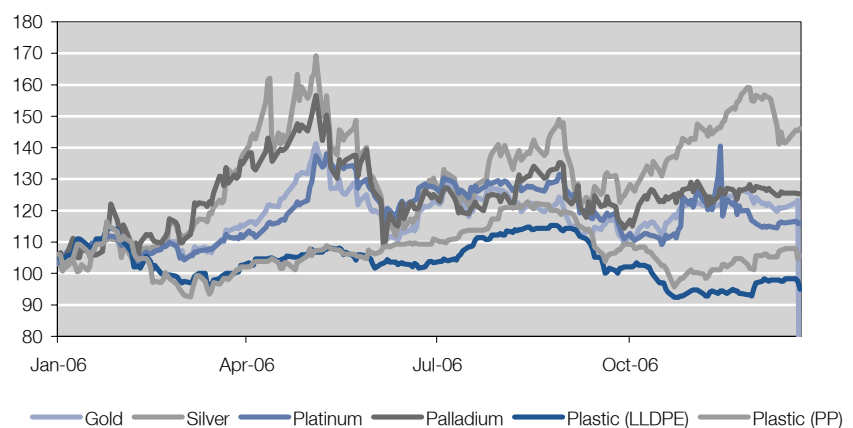
Tin also proved a surprise although here there were some genuinely large-scale fundamental supply-side concerns explaining the late-starting speculative investment interest, from first Bolivia and most recently Indonesia, neither of which story has yet completely concluded. The factional violence between different workers at Bolivia's biggest tin-mine at Huanuni in October provoked (fairly short-lived) fears that supply from this key source might be threatened, encouraging tin prices to break above \$10,000/t for the first time in 2006, having started the year at \$6,600/t. The tin cauldron has been kept bubbling by Indonesian shenanigans, as central government in Jakarta first threatened and then took action to close small-scale tin mining and smelter operations, accused of working without licences (and thus avoiding government taxes), while the Indonesian producer, PT Timah, said it would reduce its output by 4,000t in 2006 to support prices. Tin prices surged to \$11,200/t on 11th December, rising to a peak of \$11,800/t on the final day of trading in 2006; since when they have weakened but nevertheless returned an overall rise of 79% for the whole of 2006. The case for tin's rise was also firmly made by strong demand factors, with China again a significant player, having

increased its consumption by 10% or more each year since 2002, and tin's increased role as a substitute for lead in electronics' soldering.

This time last year we identified **zinc** as a "clear likely winner" in 2006 and in that respect our judgement proved sound – zinc prices rose a staggering 122% over the course of the year, a performance that confounded most expectations. As we anticipated, the supply-side issues that could be identified at the start of 2006 – a tightness of concentrates and absence of any visible new mine supply increases – played into what turned out to be extremely strong demand scenario, particularly from China and other developing economies in Asia. China's demand alone grew by some 35% during 2003-2005. For many years zinc prices had languished at or near the bottom of the heap, discouraging exploration for new resources and leaving those zinc miners that stayed afloat struggling to raise new finance. This long-term background resulted in a classic supply-demand car smash – with a probable global deficit of some 400,000t of refined zinc in 2006 – and soaring zinc prices, propelled higher by speculative investment which, among other factors, took note of LME stocks falling from about 450,000t to well under 100,000t in the course of the year.

Yet of all the base metals not even zinc could match the truly astonishing 147% rise in **nickel** prices seen in 2006. As with other strong performers, investment fund money played its part in pushing nickel from its relatively humble \$13,480/t at the start of 2006 to a peak of \$34,695/t (on 15th December), yet this additional liquidity was, as so often, pushing at an open door. This time last year we anticipated that "producer consolidation, a recovery in stainless steel production and possible delays in new projects may also see nickel with fresh impetus" – a judgement that was wrong only by being a massive under-estimation of what actually came to pass. The biggest disappointment (in terms of failed promises from planned projects) has to be the Goro project in New Caledonia, now under the control of Brazil's CVRD following its acquisition of Inco. Goro was originally conceived of as coming on-stream in 2004 with capital costs of \$1.45bn; it now will not be delivering its promised 60,000t/year of nickel before 2008, and with its costs having ballooned to \$3bn. Given the degree of vitriolic local hostility by some local activists, there must be doubts that it will ever get off the ground, although it would be a difficult thing for CVRD to walk away from. Other big projects have also run into difficulties, not least being BHP Billiton's Ravensthorpe project, also delayed. The expected surge of new nickel supply that was meant to be already with us has failed to materialise, and the time-span for significant new supply to reach a market that is probably already in a 20,000t deficit (while the stainless steel appetite has recovered remarkably from last year's slump) stretches out to 2009 at the earliest.

Precious Metals and plastics in 2006 (end-05 = 100)



Source: Fortis

Of the other contracts we follow on the LME, the two **plastics** – for LLDPE and PP – were the weakest performers of all, although as the volume of contracts traded was substantially less than any of the base metals we follow, the picture may be artificially depressed by the low levels of liquidity in these markets. The second-position contract for LLDPE actually registered a 5.1% fall during the course of 2006, while that of PP gained a miserly 5.6% – not much better than a good bank deposit account. The gradual decline in crude oil prices throughout 2006 kept a lid on plastics' prices and, in what was a fairly moribund market (and plenty of action in base metals and other commodities) there was little real incentive for the kind of speculative investment that might have made a difference.

In precious metals the star turn was clearly **silver**, which moved from the start of 2006 at \$8.83/oz to a peak of \$14.94/oz; but that high point came remarkably early in the year, on 12th May, and, predictably enough, coincided with the year's high point for gold. Silver disappointed those who were convinced that it would reach \$15/oz before the end of the year but, with an average price for the year of \$11.54/oz it was a full \$2.57/oz higher than 2005's average and for the year as a whole the metal notched up a 46% gain, split evenly between the first and second halves of the year. Silver undoubtedly benefited from reinvigorated investor interest as a consequence of the innovative exchange traded fund launched by Barclays Global Investors – the fund had by the final week of 2006 accounted for an impressive offtake of 3,768t – but it was notable that silver investment on Comex was, over the year as a whole, down by a significant 4,934t; the assumption must be that the ETF has tempted some former Comex investors.

Also somewhat expected, perhaps, was the recovery in **palladium's** price, which rose from the start of 2006 at \$258/oz to a peak of \$404/oz (once again, on 12th May). Palladium benefited to an extent from the sustained surge of platinum above \$1,000/oz, the promoters of palladium jewellery exploiting to the full its "look-alike-but cheaper" qualities. The picture for investment interest in palladium was however less rosy than for that of silver. During 2006 investors on Nymex cut their positions by nearly half (455,000 oz), while TOCOM investors reduced their positions by 86,872 oz, which, although on a volume basis was much less than Nymex, on a percentage basis it was comparable. Palladium nevertheless saw a gain of 25% over the year, and thus confounded those who deserted the party prematurely.

Platinum first moved above \$1,000/oz on 10th January and then sank marginally below that only on one occasion, when on 16th February it fixed at \$997/oz. With a closing price of \$1,118/oz, the metal notched up an impressive 16% gain over the year, the relatively high price defying expectations that it would lead to swift and inevitable demand destruction (in jewellery) and substitution (in autocatalysts). With a marginal supply-demand deficit in place, apparent resilience in the jewellery market and surging growth of diesel-engine vehicles in the EU (and signs of greater interest in the USA and Japan) it seemed odd that, by the end of the year, Nymex investors cut their positions by 174,450 oz whilst TOCOM investors reduced theirs by 27,651 oz against the position one year previously. This is perhaps reflected in the average price for the year being \$1,142/oz, higher than the closing price. Essentially investors' attitudes to the metal took a nose-dive towards the end of the year, particularly after the rumours of a platinum-based ETF – which coincided with a hike to the year's peak of \$1,355/oz (on 21st November) – swiftly fizzled out.

Of course the darling of the precious metals' investor, **gold**, was subject to the usual flurry of rumours and rhetoric in 2006, but in cold terms gold only managed to achieve an equal 8th place (along with aluminium) in the pecking order of the ten metals we follow, scoring an overall rise for the year of 23%, precisely half the gain for silver investors. By the end of 2006 combined offtake for all the gold-related ETFs amounted to 607t, against the 344t at the end of 2005, a significant growth but counter-balanced by the fact that, as with silver, some investors were tempted away from futures' exchanges – total net investment on Comex in 2006 fell by a huge 279t, while the General Public on TOCOM reduced their investment by 46t. Some of this reflects COMEX losing market share to CBOT, with that exchange's

data available for the first time this year, its total position grew steadily and at close stood at 54t. Gold started 2006 at \$513/oz and peaked on 12th May at \$725/oz and recorded an average for the year of \$603/oz, \$159/oz higher than 2005's average. It closed at \$632/oz, a strong upward trend that undoubtedly owed much to a weakening US currency in the final quarter, but over the second half of the year as a whole it had lost 9%.

Happy New Year – for some

What are the prospects for 2007? Of the base metals, we remain strongly in favour of zinc and nickel, while the picture for aluminium, copper, lead, and tin is opaque and deeply contingent on a variety of uncertainties. We favour zinc and nickel not so much because they have fewer imponderables but because their particular conundrums are, paradoxically, much more certain, and centre on the time-lag between new mine supply catching up with established current deficits.

Of the precious metals much depends (in the case of gold and silver) on the strength of the US currency, which, given the mixed nature of recent USA economic indicators, is also uncertain. While there is clearly a desire within some quarters of the USA Federal Reserve to lower interest rates (and thus fend off a possible slowdown), others are more concerned about the possibility of a resurgence in inflation. One apparent prop that was underpinning moves towards lower interest rates – the relatively high crude oil price – snapped in early 2007 and further confused the picture. Lower USA interest rates should portend a weaker dollar and a strengthening (dollar) gold price. We do not envisage a change of heart by central banks as regards gold and anticipate them to continue to be net sellers, while jewellery demand, already hit in 2006 by the price rise, would take another knock were gold to revisit its highs of 2006. Platinum demand we expect to remain strong and, while output expansions are in the pipeline, the growing market share of diesel vehicles and the relatively slow substitution by palladium in diesel autocatalysts should ensure a captive market for platinum for years to come. The price spike to nearly \$1,400/oz in the last quarter of 2006, however, might have been the final straw for some consumers and it is to be hoped that gains this year are more gradual. Silver has benefited from a new outlet for would-be investors and, given the success of the ETF, it is feasible that imitators may emerge, which might further stimulate the investment community's interest in silver. Silver's industrial prospects however remain dim as film camera photography is further displaced by digital, and paradoxically the soaring zinc price will inevitably eventually lead to increased silver supply as a by-product of increased zinc mining.

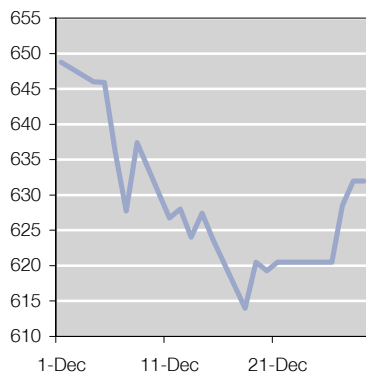
Of those base metals we least favour, tin stands out as a possible winner, partly because it is currently the most unpredictable. The Indonesian authorities increasingly seem to have the bit between their teeth as far as unlicensed tin mining and smelting is concerned, and a deepening crackdown against this will inevitably spell a shrinking supply precisely at a time when global demand is stronger than for many years. Copper, on the other hand, is now facing a more certain (and progressively less bullish) future, at least in terms of supply, where last year's major threats – possible strikes in Chile – have largely been resolved by new long-term labour contracts. The big conundrum is China. As far as Norddeutsche Affiniere, Europe's biggest copper producer, is concerned, official Chinese data showing progressively weakening copper cathode imports into China in 2H 2006 has been misleading; it considers that Chinese consumers have been living off national stockpiles and that Chinese buying will return at what is considered to be a more attractive price – though what that price might be is largely guesswork. Our view is that while copper may weaken further in Q1 2007, it is likely that its average price for 2007 will be above \$5,000/t. Aluminium's fundamentals look well-balanced for the immediate future, and as for lead, its strong performance in 2006 really is no guide to this year's outcome; it could slide back to \$1,000/t without any trouble. Which leaves us with zinc and nickel, the best performers for 2006 and, we suggest, likely to be among the best again in 2007, if only because this year we expect weaker average prices for the rest than last year, save for tin, whose fate is right now a political rather than a purely commodity issue.

Zinc: Global refined zinc consumption is expected to again exceed supply in 2007, which will lead to another round of draw-down of inventories held by consumers and producers, while sources of new zinc concentrates to meet this growing demand will take time to catch up. By the end of the current year refined zinc global stocks could be reaching critical levels and we expect the trend of depleting inventories to be reflected in higher absolute and average prices than those of 2006. The Australian Bureau of Agricultural and Resource Economics (Abare) estimates that global demand for refined zinc this year will rise to 11.15 Mt against 10.96 Mt in 2006; this forecast for a relatively small 1.7% growth in demand looks very conservative, given continued strong economic growth in Asia, China especially. One key driver for continued high levels of zinc consumption should be the rapidly expanding car market (a typical steel-built car uses some 10 kg of zinc, for rust-proofing) of China and in other emerging economies. On the supply-side, while new projects are currently under consideration, the time-lag is such that the deficit could worsen before it noticeably improves. Of the major new projects Zinifex's Dugald River project in Queensland looks the most promising and is among the biggest. A pre-feasibility study has been completed and a feasibility study should start early this year with a development decision mid-2008. However, even on the fastest timeline this project – which would produce 200,000t refined zinc/year – will not become an operating mine before 2011. With no significant increase in new mine supply on the immediate horizon (and plenty of scope for supply disruptions, as zinc mines work flat out to take advantage of historic high prices) there could conceivably be another record nominal high before the end of 2007. The one fly in the ointment could be the rapidity with which China might become a zinc exporter, and as yet that is very difficult to determine.

Nickel: As with zinc, the major immediate factor that influences our thinking is the lack of visible significant new supply coming on-stream in the immediate future, coupled with what appears to be continued strong demand from relatively certain sources of stainless steel output, China in particular but Asia more generally. We have already mentioned the difficulties that have been experienced by several major nickel mining projects (Goro, Ravensthorpe) but other projects that are more certain to come to fruition (such as CVRD's Onca Puma project in Brazil, Anglo American's Barro Alto project, also in Brazil, and Xstrata's Koniambo project in New Caledonia) are unlikely to start delivering metal much before 2010. In the meantime, China's rapidly expanding steel (including nickel-dependent stainless steel) sector is helping keep demand for nickel strong. Stainless steel prices are currently higher than for several years but demand for stainless steel remains buoyant and, barring a serious economic slowdown in key Asian markets in 2007, the probable 20,000t nickel deficit of 2006 will not shrink much in 2007. Any indications that some of the bigger planned new nickel mines might be further delayed or (unthinkable as it might be right now) even suspended would only add to the metal's combustibility. Having achieved a watershed of \$35,000/t in late 2006, nickel could be a relatively strong performer again in 2007.

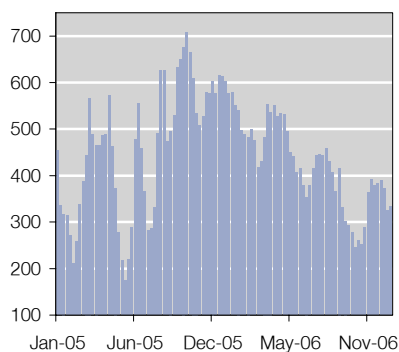
Gold

Gold price (\$/oz)



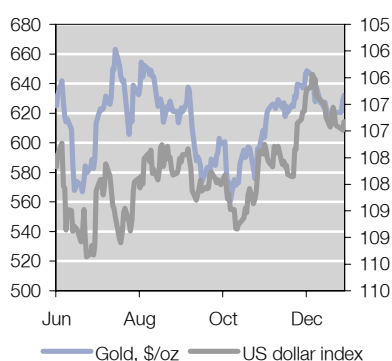
Source: London Bullion Market Association

Comex: Non-commercial net position (tonnes)



Source: Virtual Metals

Gold and the US dollar



Source: Virtual Metals from Federal Reserve data

News

- Dec 14th: Gold Fields said it now owned 82% of the shares of Western Areas; it needs to acquire 94.1% to be able to invoke a compulsory ownership clause under South African company law.
- Dec 5th: Barrick Gold's Pascua Lama gold mine project, which will sit across the Argentine-Chilean border, gained final approval from the provincial Argentine government of San Juan. It received Chilean approval earlier in 2006. The \$1.5bn project is expected to come on-stream in 2010 and produce an average 750,000 oz of gold and 30 Moz of silver annually in its first 10 years.
- Dec 7th: Barrick unsuccessfully ended its contested offer for NovaGold, having acquired shares equivalent to just 14.8% of the company.

Analysis

- ECB late-year flurry proves illusory

A late Christmas present was delivered to the market on 28th December in the form of the ECB's weekly return for 22nd December, which noted that a central bank had bought gold, and not – as has happened before – in the form of coins. Rumours abounded that it was the Bank of Italy, on no greater grounds than this time last year that institution had switched some of its dollar reserves into sterling. It was not explained why a bank with 2,452t of gold would make a purchase which, calculations suggest, could be no more than a few tonnes. Like many a Christmas present, the excitement soon wore off. An ECB spokesman said the purchase was 'technical' and due to the end of the year. More cold water came from the ECB's final return, for 29th December, which noted another increase, but this time explained it as being coins that had been melted down by a central bank into bullion, and thus which had gone from not being counted as reserves to being so. Whether the two increases are related is not entirely clear, but it seems likely, and certainly it is not the long-awaited return to gold from the European central banks.

China's rise to prominence in the gold market was highlighted in December at the China Gold & Precious Metals Summit, where the China Gold Association said that, in conjunction with the National Development and Reform Commission, new regulations will be drafted to encourage foreign investment from "qualified" companies, by which it meant investors with sufficient scale and long-term interest to provide appropriate technological and management expertise as well as finance. China's proved gold reserves are now above 4,600t and its 2006 production should be more than 240t, with domestic consumption of some 350t.

Outlook

For contrarian-minded investors 2007 presents a simple option: with a broad consensus that gold prices will climb higher as a consequence of an expected weaker US dollar and yet more geo-political jitters, it should be time to go short. Yet contrarians might be wrong this time, or at least premature. Much of the bullishness that fixates on gold derives from pent-up frustration at years of record low prices, and this is still working itself through and might further to go, but much depends on the dollar. London pm fix short-term: \$590/oz-\$630/oz.

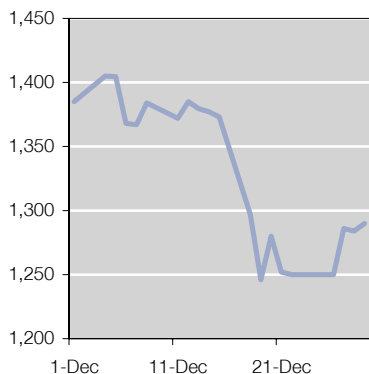
Market data (December unless stated)

| Prices | US\$/oz | Euro/oz | Rand/kg | ETF investment | Ounces | Lease rates | 1m | 3m | 6m | 12m | Option volatility (end month, %) | |
|---------|---------|---------|---------|----------------|---------|-------------|------|------|------|------|----------------------------------|-------|
| Average | 628 | 476 | 141,999 | US | 396,223 | Average | 0.11 | 0.12 | 0.13 | 0.12 | 1-month | 17.50 |
| High | 649 | 488 | 148,997 | UK | (868) | High | 0.12 | 0.14 | 0.16 | 0.17 | 3-month | 18.75 |
| Low | 614 | 469 | 138,292 | Aus | 2,815 | Low | 0.09 | 0.11 | 0.11 | 0.04 | 6-month | 19.50 |
| | | | | S.Africa | 3,878 | | | | | | 12-month | 19.75 |

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

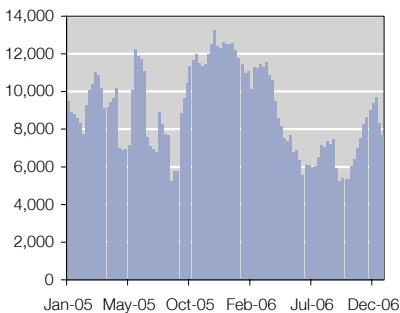
Silver

Silver price (cents/oz)



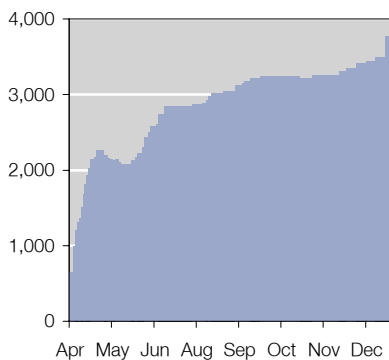
Source: London Bullion Market Association

Comex: Non-commercial net position (tonnes)



Source: Comex

Silver ETF offtake (tonnes)



Source: BGI website

News

- Dec 22nd: Mexico's silver output in Oct 2006 fell 41.5% (against the same month in 2005) to 4.12 Moz, according to the country's National Statistics Institute; the explanation given was lower-grade concentrates processed by Industrias Penoles, Mexico's biggest silver producer.
- Dec 6th: Peru's Volcan Compania Minera said it plans to invest about \$120m in 2007, which, among other projects, could increase its silver production by 2-3 Moz/year; total probable output in 2006 was 15 Moz.

Analysis

- Late-year splurge in ETF investing

With a gain for 2006 of 46% investors in silver might be forgiven for feeling a little smug – compare that with gold's rather less impressive rise of 23% (in US dollar terms). There's no doubt that the Barclays Global Investors' silver ETF iShares Silver Trust worked a little magic for silver, and even managed to throw an end-of-year party, with a surprising rise of 279t of fresh investment in the ETF on 21st December alone – surprising because that was higher than the increases for each of the four previous months. But rather than a sudden onrush of large numbers of belated new converts this late-year surge is likely to have been (on past experience of the silver market) the work of a single individual or fund-related investor – which is either encouraging to those who have so far stayed on the sidelines, or a warning signal that some quick profits were being sought.

This large addition to the ETF came fairly close on the heels of a plunge of some 7% in the spot price of silver on 15th December, down to a low of \$12.77/oz, continuing until it reached a low of \$12.46/oz on the 19th, its lowest in a month. The March-dated contract on Nymex that day closed at \$12.98/oz, another one-month low. December was a relatively volatile month for silver – the lows had been preceded on 5th December by a fresh six-month high of \$14.17/oz. But hopes that the 25-year (nominal) high of \$14.94/oz of early May would be revisited before the end of the year were dashed.

Outlook

The silver ETF will be a difficult trick to follow this year and it is increasingly likely in our view that attention will return to the metal's fundamentals which, given the inevitable terminal decline of film camera photography (which still comprises about 20% of demand) and the probable substantial new mine supply as a by-product of zinc and lead, do not augur well. If silver dropped and stayed below \$10/oz for any significant period, would all those who have ploughed into the ETF stay put? Our view is that unless industrial demand for silver finds fresh, innovative functions (and the majority of those would not be commercially viable at even \$9/oz) then the price is inexorably headed lower than currently. But in the meantime there could be a rise to a new peak of \$16/oz as investors are further tempted by a weaker US dollar and continued enthusiasm for the ETF. London daily fix short-term: \$12/oz-\$14/oz.

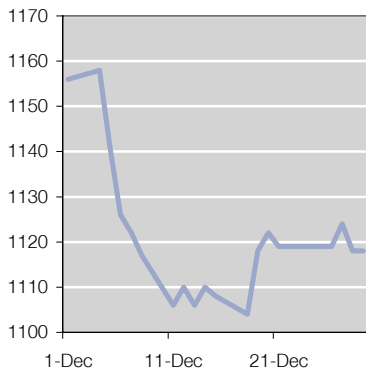
Market data (December unless stated)

| Prices | c/oz | e/oz | p/oz | Imports | kg | Lease rates | 1m | 3m | 6m | 12m | Option volatility (end month, %) | |
|---------|---------|---------|-------|-------------|---------|-------------|------|------|------|------|----------------------------------|-------|
| Average | 1,329.8 | 1,006.9 | 677.3 | USA (Oct) | 468,680 | Average | 0.30 | 0.47 | 0.93 | 1.70 | 1-month | 36.00 |
| High | 1,405.0 | 1,055.5 | 712.1 | Japan (Oct) | 393,872 | High | 0.30 | 0.47 | 0.96 | 1.77 | 3-month | 37.00 |
| Low | 1,246.0 | 946.3 | 633.8 | China (Nov) | 428,860 | Low | 0.30 | 0.46 | 0.88 | 1.58 | 6-month | 37.50 |
| | | | | | | | | | | | 12-month | 37.50 |

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

Platinum

Platinum price (\$/oz)

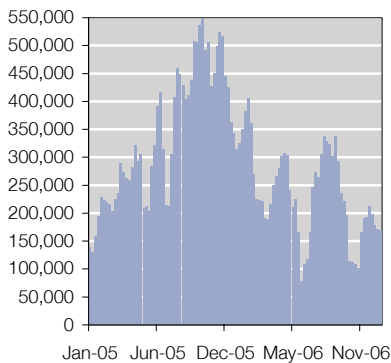


Source: London Platinum & Palladium Market

News

- Dec 26th: Local Russian news media reported that Norilsk will be unable to export platinum in January due to government failure to renew a five-year export licence which expired at the end of 2006. Norilsk later denied that there would be delays in its platinum shipments and said that obligations to its customers would be met.
- Dec 12th: The Sydney-based investment bank Africa Pacific Capital was reported as studying the viability of investing \$500m in resurrecting a mine near Musina, in northern South Africa, previously owned by Pan Palladium, with a view to starting production by 2010 of 200,000 oz/year of platinum group metals.
- Dec 6th: African Platinum (Afplats) signed an agreement with the Bakwena community in South Africa under which it will hold a 26% share in Afplats' main venture, the Leeuwkop project, as part of the country's black economic empowerment programme. Later in the month Impala agreed to buy for the equivalent of \$150m a 29.9% interest in Afplats' South African assets.

Nymex: Non-commercial net position (ounces)



Source: Nymex

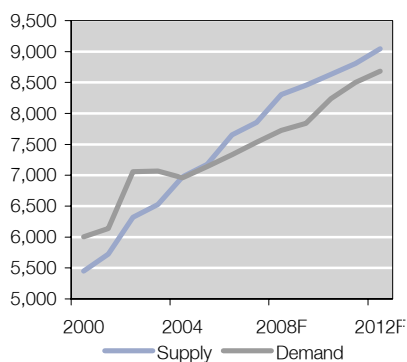
Analysis

- \$1000/oz still looking secure

Anglo Platinum (Amplats) gave an update on expansion plans for its Amandelbult mine near Pretoria, forecasting that output will rise from 556,000 oz (in 2005) to 700,000 oz/year by 2010. Amplats, the world's biggest platinum producer, accounting for some 40% of world production, now expects group total 2006 output of 2.9 Moz of platinum. Lonmin reported in December that its number one furnace had been shut down for repairs to that could take up to 40 days but it was restarting another furnace to help reduce lost production. Lonmin, the third-largest platinum producer, said it was recommissioning its Merensky furnace which will run in parallel with the number one furnace in 2H of its 2007 financial year to reduce accumulated concentrate inventory. It estimated that production for 1H of its 2007 financial year would be reduced by between 30,000/oz-40,000oz of platinum.

India's *Economic Times* reported that local jewellery retailers are benefiting from a growth in demand for platinum items, claiming that there has been a 30% growth in demand for platinum jewellery during 2006, with demand particularly high during the peak marriage periods. It pinned part of the explanation to a publicity endorsement by Nikita Anand, a former Miss India, who was quoted as saying: "I think platinum is a better alternative [to gold]. It is never overdone."

Platinum supply/demand balance, 000s oz



Source: Virtual Metals, "The White Book" (2007-2012 forecast)

Outlook

Celebrity endorsements from Indian beauties aside, platinum's future increasingly hangs on its use in autocatalysts in diesel-fuelled vehicles, which in the biggest car market of the EU have probably captured more than 50% market share in 2006 for the first time, but there are signs in some EU markets that saturation point may have been reached. Hence the excitement that in the USA and Japan diesel vehicles are making increasing inroads. While talk of a platinum exchange-traded fund has dissipated, the metal's industrial demand gives every appearance of strengthening over time. London pm fix short-term: \$1,000/oz-\$1,100/oz.

Market data (December unless stated)

| Prices | US\$/oz | Lease rates | 1m | 3m | 6m | 12m | Trade (kg) | Imports | Exports | Option volatility (end month, %) | |
|---------|---------|-------------|-----|-----|-----|-----|-------------------|---------|---------|----------------------------------|------|
| Average | 1,121 | Average | 3.5 | 3.5 | 3.3 | 3.5 | USA (Oct) | 10,610 | 10,648 | 1-month | 32.0 |
| High | 1,158 | High | 4.9 | 4.9 | 4.5 | 4.9 | Japan (Oct) | 6,933 | 1,532 | 3-month | 32.0 |
| Low | 1,104 | Low | 2.3 | 2.4 | 1.6 | 2.3 | Hong Kong (Sep) | 1,471 | 584 | 6-month | 32.4 |
| | | | | | | | Switzerland (Sep) | 4,876 | 7,801 | 12-month | 32.5 |
| | | | | | | | China (Nov) | 1,446 | 0 | | |

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

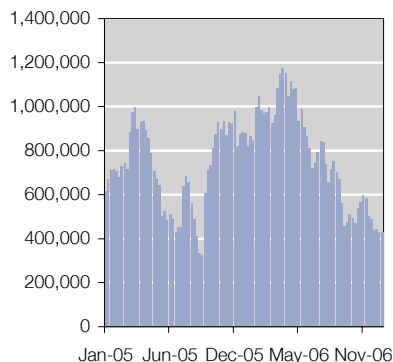
Palladium

Palladium price (\$/oz)



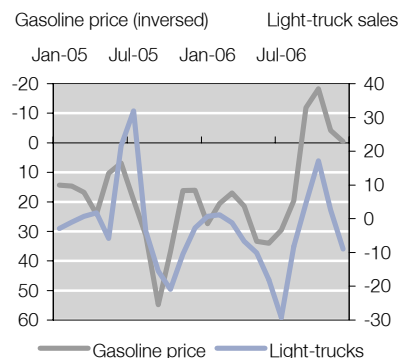
Source: London Platinum & Palladium Market

Nymex: Non-commercial net position (ounces)



Source: Nymex

US light-truck sales vs. gasoline price (% change yoy)



Source: Virtual Metals, "The White Book"

Market data (December unless stated)

| Prices | US\$/oz | Lease rates | 1m | 3m | 6m | 12m | Trades (kg) | Imports | Exports | Option volatility (end month, %) |
|---------|---------|-------------|------|------|------|------|-------------------|---------|---------|----------------------------------|
| Average | 325.9 | Average | 0.10 | 0.17 | 0.29 | 0.41 | USA (Oct) | 8,515 | 6,746 | 1-month 36.0 |
| High | 331.0 | High | 0.14 | 0.22 | 0.39 | 0.62 | Japan (Oct) | 220 | 2,312 | 3-month 39.0 |
| Low | 322.0 | Low | 0.04 | 0.12 | 0.12 | 0.03 | Hong Kong (Sep) | 2,610 | 319 | 6-month 43.0 |
| | | | | | | | Switzerland (Sep) | 4962 | 3,187 | 12-month 47.0 |
| | | | | | | | China (Nov) | 1081 | 29 | 24-month 48.3 |

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

News

- Dec 8th: Stillwater Mining announced it had invested \$2m in Pacific North West Capital, a PGM exploration company currently exploring the River Valley Project in conjunction with Anglo Platinum.

Analysis

- SUV market shrinking fast

Palladium's outlook has certainly been helped by its new lease of life as a jewellery item in the past two years, but its key market remains industrial and according to a KPMG annual survey the car market in the USA and the EU may be shrinking faster than believed in one important sector – Sports Utility Vehicles (SUVs). KPMG found that just 3% of those in the USA thought sales of SUVs would rise in 2007. In Europe 39% thought there would be growth, down from 50% in 2006.

In contrast the poll found that company chiefs expected sales of hybrids to rise from last year's 200,000 – with 34% expecting 300,000, and 37% between 300,000 and 500,000. None of this is good news for the PGM industry, as SUVs tend to use larger catalysts than the average vehicle, and hybrids, with their small engines, less. The impact on the palladium/platinum mix, however, is less clear, given SUVs were increasingly using diesel engines, even in America, which normally have platinum catalysts, whereas almost all hybrids so far use gasoline engines, for which palladium has a high market share. In Western European markets car sales were stagnant in 2006, with new registrations at some 14.6m vehicles, growth of less than 1% year-on-year. Most industry estimates fear even slower growth in 2007.

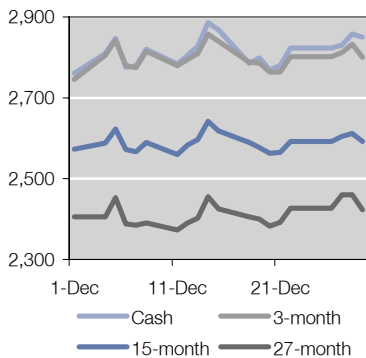
Market sentiment in the coming months will be affected in part by any news as to the extent of the end of year Russian stock sales. These usually become known through the Swiss and USA customs data for December and January, which are due out in the next month or two. In recent years the amounts have been large – this time last year it was revealed that 29t went from Russia into the US in December 2005, and 19t into Switzerland in January 2006 – dashing hopes that the sales were slowing down.

Outlook

Investment in palladium last year plummeted compared to previous years, as measured by ounces sold on Nymex and Tocom, yet the price still managed to rise 25% overall. The price gap between platinum and palladium in 2006 should have induced much greater R&D interest in substituting palladium into diesel engines' auto-catalysts and signs of increased industrial palladium offtake as the year progresses may give some clue as to this. If the platinum price were to weaken significantly and return below \$1,000/oz, the prospects for palladium jewellery would darken considerably. Meanwhile the recycling of palladium auto-catalysts should step up this year and this growing additional source of supply should act to cap the price below \$400/oz. London pm fix short-term: \$320/oz-\$360/oz.

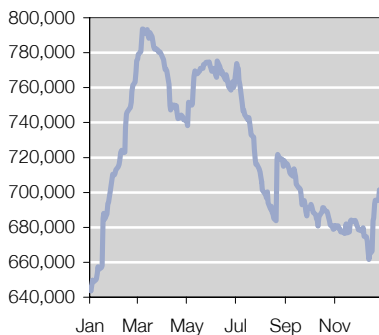
Aluminium

Aluminium price (\$/tonne)



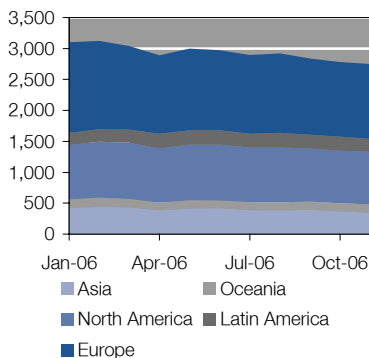
Source: London Metal Exchange

Aluminium stocks (tonnes)



Source: London Metal Exchange

Global aluminium stocks (Kt)



Source: Reuters Ecowin

News

- Jan 9th: The European Commission said it would propose cutting to zero EU import duties on unwrought aluminium, currently at 6%, in two 3% stages by Jan 2009.
- Dec 26th: The government of Trinidad rejected plans by Alcoa to build a new aluminium smelter at Cap-de-Ville, following protests by local farmers and fishermen. The project had a planned output of 341,000t/year; discussions were being held to consider alternative sites.
- Dec 21st: The European Commission said it would conclude its antitrust review of the planned merger of Rusal, Sual and elements of Glencore by 1st Feb.
- Dec 20th: Global aluminium production in Nov 2006 was 1.979 Mt, 60,000t lower than Oct (but 14,000t more than the same month in 2005), according to data released by the International Aluminium Institute (IAI). Global inventories in Nov were 2.837 Mt, 39,000t lower than Oct, according to the IAI.
- Dec 15th: Kobe Steel and Alcoa agreed to liquidate their two joint ventures concerning production of aluminium sheet for cars, concluding that increased use of aluminium in the auto sector would be slower than expected.

Analysis

- China to dominate global alumina production

Rusal, the Russian producer, gave a fairly downbeat assessment of the outlook for aluminium price for 2007, despite what it anticipated would be a hangover of a strong demand trend in 2006. It said prices would decline from an average \$2,550/t in 2006 to an average \$2,350/t in 2007, as supply growth will see the global market move towards surplus, while demand growth, especially in China, is expected to slow. Alumina prices, which weakened by more than 60% in 2006, look likely to drop further this year as China steps up production and progressively overtakes Australia as the world's biggest producer. According to the state-subsidised Beijing Antaika Information Development agency, China's alumina output will rise 45% in 2007 to 20 Mt. At the China Aluminium Forum in December Antaika's senior analyst, Wang Feihong, forecast a global aluminium surplus of some 300,000t in 2007, and while China's aluminium demand may grow by 25% to 10.7 Mt, its Nov 2006 raise in export taxes from 5% to 15% on primary aluminium, plus the reduction of tax rebates on aluminium products to 8%-11% from 13%, will deter exports and thus reduce import demand.

Outlook

LME aluminium futures failed to spark into flame by the end of 2006, despite market rumours that a USA-based hedge fund had taken a large options position to control a majority of available exchange stocks. Its May peak of \$3,310/t never seemed within range in Q4 2006, despite rising to a six-month high of \$2,851/t on 5th December. Nevertheless, a 23% price rise since the start of 2006 only looks poor by comparison with some other base metals. Barring untoward events, the market looks placed to be fairly static for much of 2007. LME 3-month short-term: \$2,400/t-\$2,800/t.

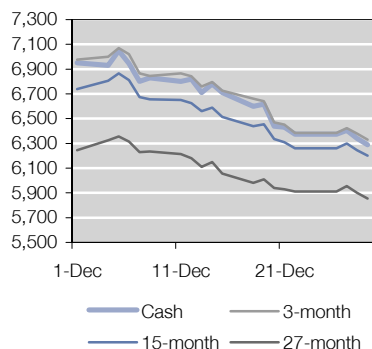
Market data (December unless stated)

| Prices (\$/t) | Cash | 3-month | 15-month | 27-month | LME stocks | Tonnes | Prod (kt) | October | November | LME Open Interest (contracts) |
|---------------|-------|---------|----------|----------|------------|---------|-----------|---------|----------|-------------------------------|
| Average | 2,814 | 2,800 | 2,590 | 2,413 | Nov-06 | 680,075 | Europe | 717 | 692 | Aluminium |
| High | 2,885 | 2,857 | 2,642 | 2,460 | Dec-06 | 678,050 | Americas | 663 | 646 | |
| Low | 2,760 | 2,746 | 2,560 | 2,373 | Nov-06 | 680,075 | Asia | 305 | 297 | |
| | | | | | | | Other | 354 | 344 | |
| | | | | | | | Total | 2,039 | 1,979 | |

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

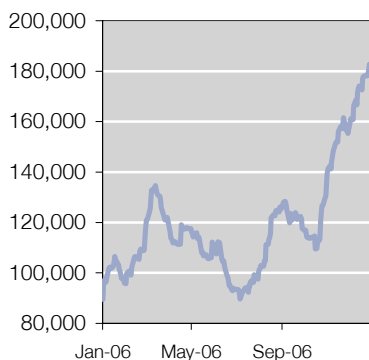
Copper

Copper price (\$/tonne)



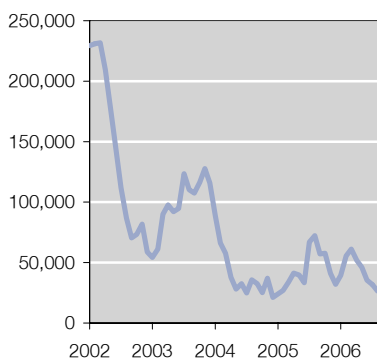
Source: London Metal Exchange

LME copper stocks (tonnes)



Source: London Metal Exchange

Shanghai Futures Exchange stocks (tonnes)



Source: Virtual Metals

News

- Dec 18th: The ICSG (International Copper Study Group) estimated the global refined copper market had a seasonally adjusted surplus of 144,000t for the Jan-Sep period of 2006, compared with a seasonally adjusted deficit of 246,000t for same period of 2005.
- Dec 6th: Antofagasta's Los Pelambres operation in Chile could cease production in 2009 if construction of its new Mauro tailings dam continues to be blocked by the country's legal authorities, according to Los Pelambres' general manager, Ignacio Cruz. The case is now to be heard in the Supreme Court. The mine is expected to have total production of 320,000t of copper in 2006, rising to 360,000t/year in 2008 if the new tailings' dam goes ahead.
- Dec 4th: Chile's Collahuasi mine (a subsidiary of Xstrata, Anglo-American and a Mitsui-led consortium) could see output lowered by 30,000t from Jan due to mill repair work; the mine has annual production of 425,000t.
- Dec 1st: Botswana's minerals' ministry said it expects the country's copper production to double in 2008 to 50,000t/year following the opening of the Dukwe mine, owned by African Copper.

Analysis

- For Sale signs go up

Copper futures weakened still further in December, falling to their lowest in eight months, as stocks on the LME continued to build and fears of labour disruptions receded. The LME's 3-month contract first fell to \$6,320/t on 21st December, prompted by a series of coinciding events: weak EU and USA industrial figures (USA industrial production rose just 0.2% in November and was flat in October) hinted at a slowing American economy, while strike threats in Chile were removed. Workers at Codelco, the world's biggest copper producer, in Chile, accepted terms for new three-year contracts on 19th December; while others at Xstrata's Altonorte smelter in Chile also returned to work after a two-day strike. The ICSG's latest data were another bearish signal, calculating that global refined production rose 5.8% in the first nine months of 2006 compared with the same period in 2005, more than double the growth in demand, although mine production was flat, year-on-year. There were optimistic noises from Papua New Guinea about the possibility of reopening the mothballed Panguna mine, closed by Rio Tinto in May 1989 following attacks by rebels. The cost of resuming operations at Panguna, which produced some 180,000t/year of copper prior to its closure, is put at about \$1bn. Any resumption would however be at least two years' off, given the regulatory and other hurdles. The price then slid all the way down to \$5,535/t by the end of 8th January, although it regained some lost territory to close above \$5,600/t next day.

Outlook

The slide in copper prices began in 2H 2006, when it fell by 15%, compared with a 68% gain in 1H. It started 2007 by sliding even further, as more speculative froth evaporated from the copper price and investment attention has been captured more by other base metals, while note has been taken of rising LME stocks which, at 195,775t by 9th Jan, are now higher than since March 2004, but still very low by historic standards. LME 3-month short-term: \$5,200/t-5,900/t.

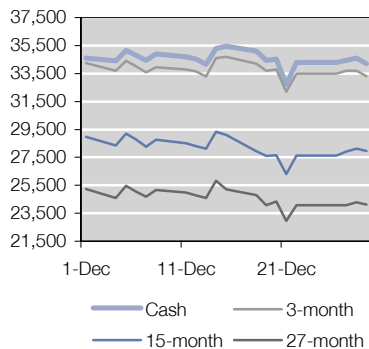
Market data (December unless stated)

| Prices (\$/t) | Cash | 3-month | 15-month | 27-month | LME stocks | Tonnes | LME Open Interest (contracts) |
|---------------|-------|---------|----------|----------|------------|---------|-------------------------------|
| Average | 6,647 | 6,677 | 6,503 | 6,082 | Nov-06 | 155,350 | Copper 335,783 |
| High | 7,049 | 7,070 | 6,865 | 6,355 | Dec-06 | 161,225 | |
| Low | 6,290 | 6,320 | 6,200 | 5,855 | | | |

Source: London Metal Exchange

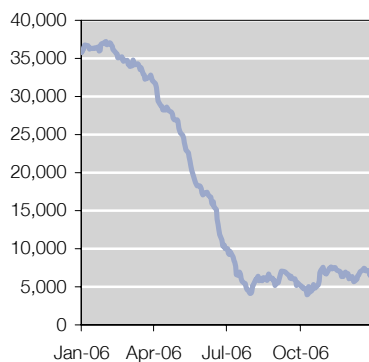
Nickel

Nickel price (\$/tonne)



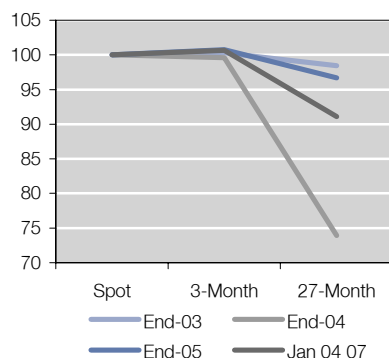
Source: London Metal Exchange

Nickel stocks (tonnes)



Source: London Metal Exchange

Nickel yield curve, 2003-2006



Source: Reuters Ecowin

News

- Jan 3rd: PT Inco, a subsidiary of CVRD in Indonesia, said that as from mid-December it had cut its nickel-in-matte production by some 130t/week (against normal production of 1,400-1,500t/week) due to low water levels at its hydroelectric dam.
- Dec 21st: Russia's nickel production rose 1.15% in 2006 to 352,000t, according to the country's Mineral Resources Agency.
- Dec 7th: Anglo American said it had received regulatory approval for its Barro Alto nickel project in Brazil, with production due to start in 2010 and output averaging 36,000t/year.

Analysis

- Fresh highs on the LME

The current El Nino climate condition (which in general terms creates drought in parts of far-east Asia) might provide an extra fillip to nickel prices in 1H 2007. PT Inco's news that it has already slowed production at its Sulawesi operation in Indonesia is a direct consequence of the El Nino-related drought affecting the region, and most meteorologists are forecasting that these conditions will not ease much before later this year. It is quite likely therefore that PT Inco will be forced to reduce output still further. PT Inco was aiming at total 2006 production of 71,000t but this will not have been met and although it is early days, a target of perhaps as little of 63,000t for 2007 is now feasible.

The troubled and much-delayed Goro nickel project in New Caledonia might take a step closer to a peaceful resolution in January; at least that must be the hope of Roger Agnelli, President of CVRD, which recently acquired the project when it bought Inco. Agnelli and other CVRD executives plan to visit New Caledonia towards the end of January and meet local community leaders including, it is thought, some of those who have been leading resistance to the project. Agnelli said in December that CVRD needs "the support of the local communities to move the project forward", but it will take more than emollient words to persuade the bitterly entrenched local opposition that has been a thorn in the side of Goro for years, delaying its start-up and increasing costs, now estimated to be as high as \$3bn. The meeting between CVRD and local activists will be eagerly watched for signs for the future of the project, which is aimed at eventually producing about 60,000t of nickel annually. On 9th January CVRD said it would complete a new evaluation study of Goro within the next two months and that nickel prices would not affect its investment decisions.

Outlook

Mid-Dec saw more records tumble on the LME as the 3-month nickel price rose to a fresh (nominal) high of \$35,000/t on the 15th, 161% higher than the start of 2006, supported by the news of lowered production from PT Inco. Nickel stocks in LME warehouses have dropped by 80% since the start of '06. Given the probability of the Indonesian drought persisting well into '07, perhaps cutting PT Inco's production even further, and the already existing physical tightness in the market, it would be a brave call to predict lower nickel prices in the short-term. If the end-Jan Goro 'summit' goes badly, fresh records could easily be set. LME 3mth short-term: \$32,000/t-\$36,000/t.

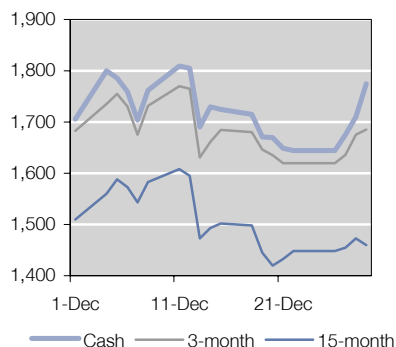
Market data (December unless stated)

| Prices (\$/t) | Cash | 3-month | 15-month | 27-month | LME stocks | Tonnes | LME Open Interest (contracts) |
|---------------|--------|---------|----------|----------|------------|--------|-------------------------------|
| Average | 34,545 | 33,737 | 28,193 | 24,592 | Nov-06 | 6,726 | Nickel 63,903 |
| High | 35,455 | 34,690 | 29,325 | 25,825 | Dec-06 | 6,204 | |
| Low | 32,700 | 32,195 | 26,300 | 22,950 | | | |

Source: London Metal Exchange except Option volatility: Virtual Metals

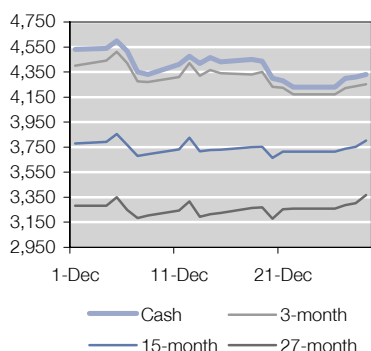
Lead and zinc

Lead price (\$/tonne)



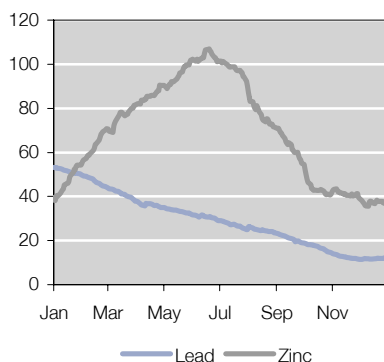
Source: London Metal Exchange

Zinc price (\$/tonne)



Source: London Metal Exchange

Stocks on LME (Jan. 1st 2004 = 100)



Source: Virtual Metals from LME

News

- Dec 13th: The International Lead and Zinc Study Group reported a global refined zinc deficit of 320,000t for the months Jan-Oct 2006, while the lead market was almost balanced, with global production of 6.66 Mt for the period and consumption of 6.651 Mt.
- Dec 12th: Zinifex said it had agreed to combine its smelting assets with those of Belgium's Umicore, in a deal creating the world's biggest zinc producer if it succeeds in gaining regulatory approval. The merger could be implemented in Q3 2007 and would see the combined entity produce 1.2 Mt zinc/year, 10% of global demand.
- Dec 10th: Zinifex reported a temporary unscheduled shutdown of its Century mine in north-east Australia; production at the mine was back to normal two days later, with lost output of some 5,600t of zinc.
- Dec 6th: Metaleurop, the French metals' producer, declared *force majeure* on its lead deliveries from its lead smelter in Nordenham, Germany, after an accident at the plant. The smelter produces about 120,000t of lead annually. The company later said it hoped to re-start the plant by the end of 2006.

Analysis

- Lead climbs, zinc battered in early January

Lead prices continued their recent climb in early December, rising to a fresh nominal high of \$1,760/t on the 4th, beating the recent high of \$1,755/t seen in early November. Higher levels of trade buying by battery producers helped push prices higher as seasonal demand kicked in and low LME stocks created some nervousness, while the *force majeure* announced by Metaleurop and the temporary shutdown of Zinifex's Century mine both gave extra impetus to speculative investment in lead futures. The unplanned shutdown of the Century mine had repercussions mainly for Zinifex itself, as the mine's biggest customer is Zinifex's own Budel smelter, but it is an example of what can happen when, as is currently the case, zinc producers are working at peak capacity to try to capitalise on a market that saw LME zinc prices more than double, as they did in 2006.

The merger of Zinifex's and Umicore's smelting assets makes good sense in terms of geographical fit; the former has smelting and refining assets in Australia, the Netherlands and the USA, while Umicore's are in Belgium, China, France and Thailand. It will also provide Zinifex with a cash pile to further its aim of increasing its zinc production, either through fresh exploration or, more likely, through acquisitions. The merged entity is planned to be floated eventually and will have its HQ in London.

Outlook

Lead futures might be skating on thin ice but the prospects for zinc still look remarkably strong. Peruvian zinc production seems to be trending downwards – 7.5% lower in Sept 2006 than the same month of 2005 – and global demand for zinc is holding up well (and exceeding supply) even at the recent high price. Zinc nevertheless fell 7% on 9th January, almost 20% down since the start of the year. LME 3-month short-term: zinc \$3,200-\$3,700/t, lead \$1,500t.

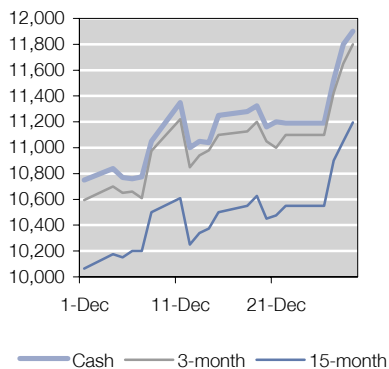
Market data (December unless stated)

| Prices (\$/t) | Cash | Cash | 3-month | 3-month | LME stocks | LME Open Interest (contracts) | |
|---------------|-------|-------|---------|---------|------------|-------------------------------|---------|
| | Lead | Zinc | Lead | Zinc | | Lead | Zinc |
| Average | 1,679 | 4,389 | 1,679 | 4,306 | Dec-06 | 41,825 | 84,825 |
| High | 1,770 | 4,600 | 1,770 | 4,511 | | | Lead |
| Low | 1,620 | 4,230 | 1,620 | 4,171 | | | Zinc |
| | | | | | | | 79,254 |
| | | | | | | | 199,280 |

Source: London Metal Exchange except Option volatility: Virtual Metals

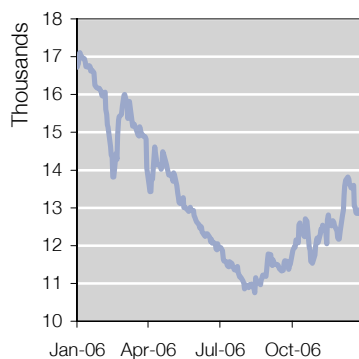
Tin

Tin price (\$/tonne)



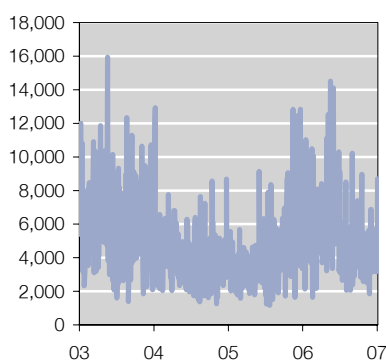
Source: London Metal Exchange

Tin stocks (tonnes)



Source: London Metal Exchange

Tin, LME, contracts volume traded



Source: LME

News

- Dec 1st: PT Timah, Indonesia's state-owned tin miner, raised its forecast for total tin production in 2006 to 40,000t, following increased supply of tin ore in the wake of the recent forced closures of unregulated tin miners.

Analysis

- Prices rocket on Indonesian uncertainty

First it was Bolivia, now it's Indonesia. Supply worries from two of the world's biggest producers gave tin a late-year rush of blood to the head as 2006 drew to an end. While the Bolivian story has apparently gone quiet (although it is more a case of problem avoided than solved), the Indonesian saga boiled in December, pushing the LME 3-month contract first to a new record nominal high of \$11,200/t by 11th December. Then, in illiquid trading conditions on 28th December it climbed to \$11,800/t, as the market feared Indonesia might limit its 2007 exports.

The Indonesian worry is perhaps more serious than that of Bolivia, as Indonesia currently remains the world's biggest tin producer, with about 130,000t/year. It started in early December with local news reports that Indonesia's second-biggest tin producer, PT Koba Tin, had its operating licence revoked, but these reports were quickly denied by the company which said its licence runs until 2013. Local media reported that the country's chief of police had sent a letter to parliament alleging PT Koba had committed unspecified illegalities in its operations on Bangka Island, epicentre of the country's tin mining. PT Koba, which is 75% owned by Malaysia Smelting Corporation and 25% by PT Timah, denied the allegations; it produces about 20,000t of tin annually from its mining concession at Bangka. The sporadic and sometimes contradictory information seeping out from Indonesia, where since October 2006 the authorities have been engaged in clamping down on unlicensed tin exploration, was enough to create fresh last-minute interest in tin futures. The fear is that if the central government authorities persist in trying to force the unregulated tin miners to obtain official licences (and start paying taxes) then some of them may prefer simply to close operations entirely, to the detriment of the country's overall tin output – and global supply. Given tin's fresh lease of life as a substitute alloy for environmentally less-friendly lead in electronics' soldering, there are good fundamental reasons why tin might be one of 2007's stellar performers if the Indonesian squabbles degenerate further.

Outlook

What happens next in Indonesia is likely to have a marked impact on LME tin prices. At the moment there seems to be something of a stand-off between the unlicensed tin miners and central government, but if a major tin producer such as PT Koba became embroiled to the extent of having its operations in some way curtailed (which the company denies is going to happen), then there could be a serious upward spike in prices. In early January the Indonesian central government said it would issue a new policy restricting internal trade in tin ore, in an effort to prevent unlicensed exports to neighbouring countries. Until the picture becomes clearer we are likely to see some volatility at current high levels. LME 3-month short-term: \$10,000/t-\$11,000/t.

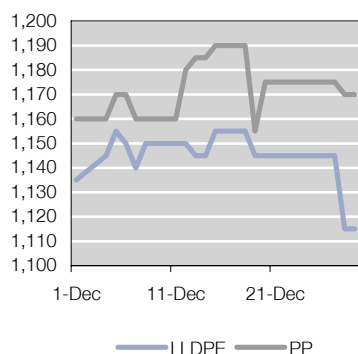
Market data (December unless stated)

| Prices (\$/t) | Cash | 3-month | 15-month | LME stocks | Tonnes | LME Open Interest (contracts) |
|---------------|--------|---------|----------|------------|--------|-------------------------------|
| Average | 11,162 | 11,040 | 10,489 | Dec-06 | 12,790 | Tin 20,348 |
| High | 11,900 | 11,800 | 11,195 | | | |
| Low | 10,750 | 10,595 | 10,065 | | | |

Source: London Metal Exchange except Option volatility: Virtual Metals

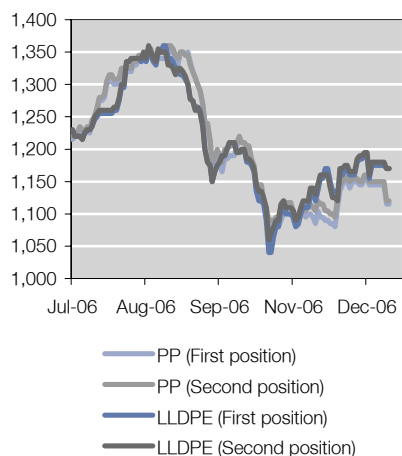
Plastics

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



Source: Virtual Metals from LME

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



Source: Virtual Metals from LME

News

- Jan 1st: The USA medical plastics market is estimated to have reached almost 1.22 Mt in 2006 and is growing by an average 4.4% annually, exceeding 1.51 Mt by 2011, according to a report, "Medical Plastics", from the market research group BCC Research.
- Dec 5th: Sabic EuroPetrochemicals took its No 4 cracker offline at its Geleen plant in the Netherlands, which has a capacity of 675,000t/year of ethylene and 350,000t/year of propylene; later in the month it was reported as having declared *force majeure* for its European customers for these products.

Analysis

- Lower crude oil to depress prices

LME plastics' futures prices trod water for much of December and volumes traded were extremely low. This (compared to other LME contract volumes) at just 655 contracts traded in PP and 1,134 contracts traded in LLDPE. This was perhaps partly a factor of the seasonal break – although volumes did not pick up noticeably at the start of January – and partly because of a traditional slowing down of producer activity in key markets in Europe and North America and care-and-maintenance shutdowns in Asia. LME trading was euphemistically described by some brokers as "low key" although prices moved slightly higher, some \$50/t, in line with stronger crude oil prices, in early December. LME stocks also barely moved in December and by 5th January were 1,757t for PP and 6,039t for LLDPE.

Spot prices in the European market were steady in December, and a decline in crude oil prices to was expected to force lower settlement prices in Q1 2007. LME warehouse stocks of PP hovered around 1,750t for most of the month, although in late December LLDPE stocks rose almost 2,800t to around 6,600t. USA spot prices were also steady thanks primarily to increased exports, largely to Asia, in recent weeks. USA prices for LLDPE by late December were around \$1,060/t-\$1,080/t, PP at \$1,080/t-\$1,100/t.

Outlook

Trading on the LME in plastics futures basically went into hibernation in December, coinciding with seasonal shutdowns in the major producing regions of the USA, EU and Asia. The falling crude oil price, back down to some \$55/barrel, will put a lid on prices and given the approaching end of the northern hemisphere winter there is plenty of scope for crude to fall still further. Plastics prices could easily slip below \$1,000/t by Q3 2007, but for the LME perhaps the bigger concern is the continued low volumes traded. The exchange's new chief executive, Martin Abbott, in early January said that the plastics' contracts, now headed for their second anniversary, will be effectively re-launched this year, with the possibility of regional contracts and spot trading, but it is not immediately obvious that this would rectify matters, the key problem being lack of overwhelming end-user and producer support. LME short-term prices, second position: PP - \$1,100/t-\$1,170/t, LLDPE - \$1,100/t-\$1,190/t.

Market data (December unless stated)

| Contract | Average prices | | Volumes (November) | | Open Interest (contracts) | | PP |
|----------------|----------------|----------|--------------------|----|---------------------------|-----|-----|
| | LLDPE | PP | LLDPE | PP | LLDPE | PP | |
| First position | 1,143.81 | 1,172.14 | Daily average | 32 | 54 | 898 | 359 |

Source: London Metal Exchange

Indices

Precious and base metal prices

| (1999 Avg.=base 100) 29 th December 2006 | Current | Change from | | | | | |
|--|---------|-------------|------|--------|-----|--------|-----|
| | | 1 M | 1 Yr | 5 Yr | | | |
| Gold (spot) | 227 | -2% ↓ | 232 | 23% ↑ | 184 | 129% ↑ | 99 |
| Silver (spot) | 247 | -6% ↓ | 262 | 46% ↑ | 169 | 197% ↑ | 83 |
| Platinum (spot) | 295 | -5% ↓ | 309 | 16% ↑ | 255 | 140% ↑ | 123 |
| Palladium (spot) | 89 | -1% ↓ | 90 | 25% ↑ | 71 | -20% ↓ | 111 |
| Aluminium (cash) | 209 | 6% ↑ | 197 | 25% ↑ | 168 | 112% ↑ | 99 |
| Aluminium (3m) | 202 | 4% ↑ | 195 | 23% ↑ | 165 | 105% ↑ | 98 |
| Aluminium (15m) | 180 | 2% ↑ | 178 | 22% ↑ | 148 | 84% ↑ | 98 |
| Aluminium (27m) | 166 | 1% ↑ | 164 | 20% ↑ | 138 | 69% ↑ | 98 |
| Copper (cash) | 400 | -9% ↓ | 441 | 37% ↑ | 291 | 327% ↑ | 94 |
| Copper (3m) | 394 | -9% ↓ | 435 | 43% ↑ | 276 | 323% ↑ | 93 |
| Copper (15m) | 369 | -9% ↓ | 406 | 63% ↑ | 227 | 297% ↑ | 93 |
| Copper (27m) | 341 | -7% ↓ | 366 | 72% ↑ | 198 | 266% ↑ | 93 |
| Nickel (cash) | 569 | -1% ↓ | 577 | 156% ↑ | 222 | 549% ↑ | 88 |
| Nickel (3m) | 548 | -1% ↓ | 552 | 147% ↑ | 222 | 540% ↑ | 86 |
| Nickel (15m) | 472 | -3% ↓ | 489 | 110% ↑ | 225 | 429% ↑ | 89 |
| Nickel (27m) | 415 | -4% ↓ | 431 | 86% ↑ | 223 | 350% ↑ | 92 |
| Zinc (cash) | 402 | -1% ↓ | 408 | 126% ↑ | 178 | 474% ↑ | 70 |
| Zinc (3m) | 389 | -2% ↓ | 396 | 122% ↑ | 176 | 449% ↑ | 71 |
| Zinc (15m) | 348 | 1% ↑ | 344 | 116% ↑ | 161 | 355% ↑ | 77 |
| Zinc (27m) | 308 | 3% ↑ | 298 | 112% ↑ | 145 | 288% ↑ | 79 |
| Lead (cash) | 353 | 6% ↑ | 333 | 61% ↑ | 219 | 267% ↑ | 96 |
| Lead (3m) | 331 | 2% ↑ | 324 | 59% ↑ | 208 | 250% ↑ | 94 |
| Lead (15m) | 277 | -3% ↓ | 285 | 50% ↑ | 185 | 194% ↑ | 94 |
| Tin (cash) | 220 | 11% ↑ | 198 | 80% ↑ | 122 | 196% ↑ | 74 |
| Tin (3m) | 218 | 12% ↑ | 194 | 79% ↑ | 122 | 193% ↑ | 74 |
| Tin (15m) | 207 | 12% ↑ | 185 | 72% ↑ | 120 | 169% ↑ | 77 |

LME base metals stocks

| (1999 Avg.=base 100) 29 th December 2006 | Current | Change from | | | | | |
|--|---------|-------------|------|--------|-----|--------|-----|
| | | 1 M | 1 Yr | 5 Yr | | | |
| Aluminium | 89 | 3% ↑ | 87 | 8% ↑ | 82 | -15% ↓ | 105 |
| Copper | 24 | 18% ↑ | 21 | 104% ↑ | 12 | -77% ↓ | 106 |
| Lead | 30 | -6% ↓ | 32 | -6% ↓ | 32 | -58% ↓ | 72 |
| Nickel | 12 | -1% ↓ | 12 | -81% ↓ | 66 | -65% ↓ | 35 |
| Tin | 140 | 7% ↑ | 131 | -22% ↓ | 180 | -58% ↓ | 329 |
| Zinc | 30 | 3% ↑ | 29 | -78% ↓ | 133 | -80% ↓ | 147 |

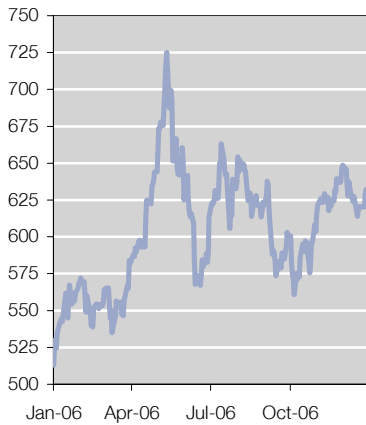
USD exchange rates

| (1999 Avg.=base 100) 29 th December 2006 | Current | Change from | | | | | |
|--|---------|-------------|------|--------|-----|--------|-----|
| | | 1 M | 1 Yr | 5 Yr | | | |
| European euro | 81 | 0% | 81 | -10% ↓ | 91 | -32% ↓ | 119 |
| Canadian dollar | 78 | 2% ↑ | 77 | 0% | 78 | -27% ↓ | 106 |
| Great British pound | 83 | 0% | 83 | -12% ↓ | 94 | -26% ↓ | 112 |
| Japanese yen | 104 | 3% ↑ | 102 | 1% ↑ | 103 | -7% ↓ | 112 |
| South African rand | 117 | -2% ↓ | 120 | 11% ↑ | 106 | -39% ↓ | 190 |
| Australian dollar | 83 | 0% | 83 | -7% ↓ | 89 | -34% ↓ | 126 |

Source: Virtual Metals & London Metal Exchange

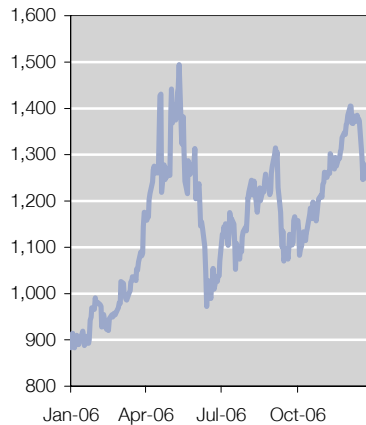
Prices

Gold (\$/oz)



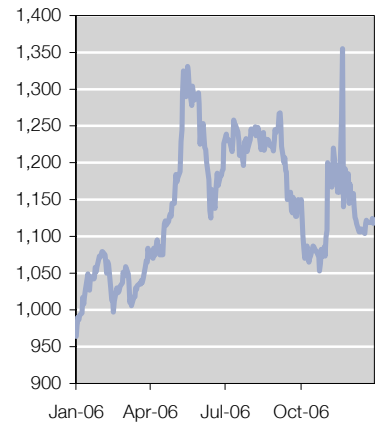
Source: London Bullion Market Association

Silver (cents/oz)



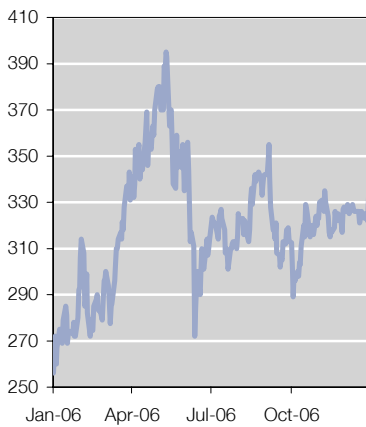
Source: London Bullion Market Association

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

Notes

Notes

Notes

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