

Fortis metals monthly

October 2008



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

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Metals and plastics – Strategic view

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Introduction

The financial crisis has spread beyond banking and is threatening to turn into a full-blown and almost global – with perhaps the exception of parts of Asia – economic recession. This inevitably is taking its toll on all commodity prices and metals – save gold – are not exempted, precisely because of their industrial base.

Gold

The dollar's gains have masked the good performance of gold, which is currently trading at all-time highs in terms of euro/oz and sterling/oz. With so much fear and uncertainty in major financial centres and commodity markets we think even the dollar price could head towards all-time highs, unless one of the many rescue packages now being introduced actually convinces. Even that will not inhibit gold's longer-term strength, based on eventual dollar weakness returning and supply-side constraints (lower central bank sales, mine supply continuing to disappoint).

Silver

Silver remains essentially an industrial metal and therefore it should not surprise anyone that the markets are treating it thus, even though it aspires to be compared with gold. Given a highly unfavourable supply and demand profile, any rallies ought to be taken as excuses to sell.

Platinum

Platinum's miserable performance means that to be bullish right now requires either tremendous hope, or a bit of imagination and faith in the long term. The best hope is that car companies overstocked earlier in the year, which could mean that demand currently is artificially low and will recover, even in the absence of improved car sales.

Palladium

Under \$200/oz might see some investors go bargain hunting, for the price has perhaps come down too far on admittedly dismal car sales. Any small signs of recovery in the US or China could see gains.

Aluminium

Aluminium did not rise as far as other metals and has fallen less. However, weak demand coupled with large and growing LME warehouse stocks has seen prices fall to multi-year lows. We believe the downside remains limited by high production costs, but in the current murky outlook for demand, there's little reason to expect any gains.

Copper

Copper has finally succumbed to the poor outlook for demand and the price is falling fast. It gives us no comfort that, back in February this year, we made precisely the price forecast that we now have today, although the price has taken a couple of months longer to get there than we expected. We believe it could go significantly lower in the short term, even though there remain signs of supply problems in Chile and elsewhere. But a reasonably comfortable global surplus is in the offing for 2009, which will cap any wild efforts to push prices higher.

Nickel

The prospect now is for a surplus of at least 100,000t of refined nickel in 2009, as demand for stainless steel consumer and industrial goods is being hammered. The price today reflects that and, if demand weakens still further, will go lower. This naturally will give some of the world's biggest high profile mining projects pause for thought. We expect some of them will be mothballed or even abandoned – which will set the market alight when economies recover.

Lead and zinc

Life is full of surprises; who could have envisaged two years ago the situation of China, once the world's biggest exporter of refined lead by a large margin, would today be a net importer? This is providing a floor for the lead price but it too has been dented, essentially because of collapsed car sales and hence lower demand for lead-acid batteries. As for zinc – the price is edging very close to the marginal cost of production; once it gets there (as it surely must) we expect to see a slew of production cutbacks.

Tin

Of all base metals tin has been the least bad, but it too will not escape the pain of lower consumer demand, particularly for electronics. It has clung on to its relatively better position thanks to supply-side uncertainties from Indonesia, the Democratic Republic of Congo. It is also likely to be one of the first to benefit from the eventual turnaround, as China's demand is still strong.

Steel

Steel producers everywhere have been signalling production cuts; even China's cost-aggressive producers have sniffed the wind, which has the ghastly aroma of demand collapsing in front of their eyes. Longer term steel has a very strong future as the developing world builds its infrastructure for its rapid urbanisation. But that may be on hold, for now.

Plastics

Plastics prices as ever have been under the sway of crude oil; the LME contracts are still trading very low volumes.

Forecasts

Price forecasts

		8 th Oct	1-month	2-month	3-month	12-month
Gold	\$ per oz	903.50	860-1,050	800-1000 (r)	800-900	850
Silver	\$ per oz	11.65	11-14	11-15 (r)	11-15 (r)	13 (r)
Platinum	\$ per oz	1,004	850-1,250	850-1,250 (r)	850-1,250 (r)	1,500
Palladium	\$ per oz	200	170-250	200-350	200-350	300
Aluminium (3-month)	\$ per tonne	2,321	2,100-2,400	2,200-2,800	2,500-3,000	3,000 (r)
Copper (3-month)	\$ per tonne	5,440	5,000-6,000 (r)	4,500-6,000 (r)	4,500-6,000 (r)	6,000
Lead (3-month)	\$ per tonne	1,616	1,500-1,600	1,600-1,900	1,600	1,500
Nickel (3-month)	\$ per tonne	13,665	12,000-14,000	12,000-14,000 (r)	12,000-14,000 (r)	16,000
Tin (3-month)	\$ per tonne	15,425	>14,700	15,000-17,000 (r)	15,000-18,000 (r)	18,000
Zinc (3-month)	\$ per tonne	1,532	1,400-1,500	1,400-1,500 (r)	1,500 (r)	1,500
Plastic: LL (Global)	\$ per tonne	1,375	1,300	1,300 (r)	1,300 (r)	1,500
Plastic: PP (Global)	\$ per tonne	1,275	1,200	1,200 (r)	1,200 (r)	1,400
Steel: (3-month) Med	\$ per tonne	420	300-400	400-500 (r)	400-500 (r)	700
Steel: (3-month) Asia	\$ per tonne	420	300-400	400-500 (r)	400-500 (r)	700

		Average/2009	Average/2010	Average/2011	Average/2012	Average/2013
Gold	\$ per oz	825	800	650	650	650 (r)
Silver	\$ per oz	12 (r)	12 (r)	12 (r)	12 (r)	10
Platinum	\$ per oz	1,500	1,700	1,700	1,500	1,300
Palladium	\$ per oz	300	350 (r)	400	400	300
Aluminium (3-month)	\$ per tonne	3,000 (r)	3,500 (r)	3,800	3,500	3,500
Copper (3-month)	\$ per tonne	6,000	6,000 (r)	6,000 (r)	7,000 (r)	8,000 (r)
Lead (3-month)	\$ per tonne	1,250	1,200	1,150	1,200	1,200
Nickel (3-month)	\$ per tonne	17,000	18,000	18,000	18,000	16,000
Tin (3-month)	\$ per tonne	16,000	15,000 (r)	15,000 (r)	12,000	10,000
Zinc (3-month)	\$ per tonne	1,300	1,300	1,700	1,700	2,000
Plastic: LL (Global)	\$ per tonne	1,400	1,200	1,200	1,200	1,200
Plastic: PP (Global)	\$ per tonne	1,400	1,250	1,250	1,250	1,250
Steel: (3-month) Med	\$ per tonne	900	1,000	1,000	1,200	1,400
Steel: (3-month) Asia	\$ per tonne	800	900	900	1,100	1,300

Source: VM Group

[r] = revised from previous month

Market Update

Prices and stock levels

Prices (8 th Oct)		Most recent price	Average over past 12 M	High	Low	Price 1 week ago	WoW (%)	Price 1 month ago	MoM (%)	Price 12 months ago	YoY (%)	Average 2007	Average 2006
Gold	\$/oz	903.5	872.4	1,011.3	736.0	903.5	(0)	808.0	12	736.0	23	696.5	604.0
Silver	\$/oz	11.65	15.95	20.92	10.66	11.65	(11)	12.4	(6)	13.2	(12)	13.4	11.6
Platinum	\$/oz	1,004	1,710	2,273	959	1,004	(8)	1,376.0	(27)	1,357.0	(26)	1,304.7	1,141.9
Palladium	\$/oz	200.0	389.8	582.0	197.0	200.0	(8)	273.0	(27)	359.0	(44)	354.7	320.4
Aluminium	\$/tonne	2,321	2,769	3,341	2,255	2,321	(6)	2,651.0	(12)	2,412.0	(4)	2,662.0	2,593.4
Copper	\$/tonne	5,440	7,654	8,812	5,440	5,440	(17)	6,970.0	(22)	7,950.0	(32)	7,095.9	6,670.6
Lead	\$/tonne	1,616	2,538	3,880	1,565	1,616	(13)	1,857.0	(13)	3,751.0	(57)	2,557.9	1,281.6
Nickel	\$/tonne	13,655	25,577	34,055	13,655	13,655	(18)	18,700.0	(27)	30,600.0	(55)	36,217.1	23,265.6
Tin	\$/tonne	15,425	19,369	25,500	15,425	15,425	(13)	18,800.0	(18)	15,850.0	(3)	14,532.3	8,765.8
Zinc	\$/tonne	1,532	2,221	3,170	1,532	1,532	(10)	1,755.0	(13)	2,966.5	(48)	3,243.2	3,252.4
PP	\$/tonne	1,275	1,511	1,930	1,275	1,275	0	1,550.0	(18)	1,300.0	(2)	1,220.2	1,176.4
LL	\$/tonne	1,375	1,486	1,750	1,260	1,375	0	1,580.0	(13)	1,265.0	9	1,254.9	1,213.2

LME Stocks (8 th Oct)		Most recent stocks	Average over past 12 M	High	Low	Stocks 1 week ago	WoW (%)	Stocks 1 month ago	MoM (%)	Stocks 12 months ago	YoY (%)	Average 2007	Average 2006
Aluminium	Tonnes	1,394,525	1,040,125	1,394,550	910,300	1,376,175	1	1,170,450	19	936,250	49	842,573	723,253
Copper	Tonnes	209,300	153,977	209,800	109,025	199,075	5	202,125	4	134,075	56	158,899	119,593
Lead	Tonnes	63,175	60,540	101,900	22,425	64,700	(2)	76,775	(18)	22,425	182	37,218	76,115
Nickel	Tonnes	54,966	46,946	56,070	35,964	55,974	(2)	50,166	10	35,976	53	18,110	17,324
Tin	Tonnes	5,500	9,156	13,540	5,300	5,700	(4)	5,660	(3)	13,495	(59)	11,891	13,187
Zinc	Tonnes	166,800	122,581	167,850	58,100	154,950	8	159,725	4	58,975	183	81,377	218,452

Source: VM Group

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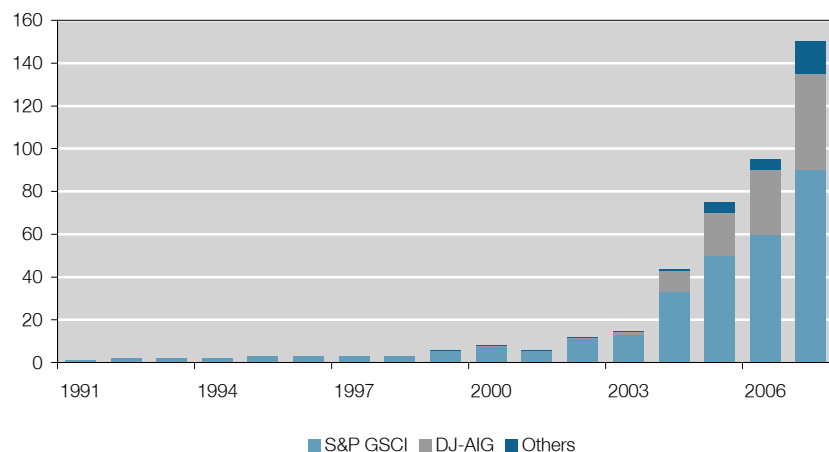
Commodity indices and base metals

Investment – or speculation, depending on how you see it – in base metals does not get the same publicity in the wider world as it does in precious metals, energy or even agricommodities. The reasons for this are quite straightforward – gold, and to a lesser extent silver, have always enjoyed investment demand, particularly in times of acute financial stress, as we have today, thus generating the ‘rush to gold’ stories. For energy and agricommodities the reasons are different – their investors get blamed for price rises which are very unpopular with consumers, who have to pay more for food and fuel. But neither of these considerations seem to apply to base metals, which traditionally have not had a huge investor base, and which even when at record highs do not seem to impinge much on consumers’ consciousness.

Nevertheless, in recent years investor interest in base metals has risen, along with the general commodity complex, as prices have risen and other investments disappointed. The most obvious manifestation of this has been through the commodity index funds – futures investments based on commodity indices such as the S&P GSCI or the Dow Jones-AIG. But how much base metals do these indices hold, and how has that changed over the past few months as prices have come crashing down?

First some background. Commodity index funds have seen explosive growth in recent years. The chart below shows our estimates¹ of their assets under management² (AUM) in *all* commodities (not just base metals), over the past seven years. By the end of 2007 we estimate these had reached around \$145bn, with the S&P GSCI holding the majority of the AUM, followed by the DJ-AIG.

Estimated AUM of commodity indices (\$ billion)



Source: VM Group from company statements, CFTC data and own calculations

¹ Official information about commodity index funds is limited, deriving mostly from the Commodity Futures Trading Commission (CFTC) through its weekly Commitment of Traders report and other reports. So to estimate the size and composition of the whole market requires some data manipulation.

² Normally when looking at investment in commodity futures one is talking about ‘notional’ values, as each contract has a long and short position. However, commodity index funds tend to operate on a fully collateralised basis, where the fund invests in a safe asset, usually US treasury bills, an amount equal to the notional value (less any margin payable) of the futures position. Hence one can talk about AUM in a similar way to an investment in equities or bonds.

Commodity indices: split between inflows and valuation

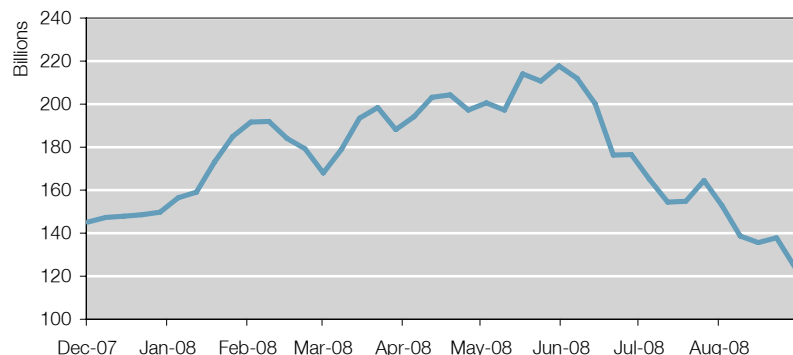
	AUM \$bn	Change	Of which	
			Inflows	Valuation
2003	43		26	2
2005	75	32	21	11
2006	95	20	27	-7
2007	145	50	25	25

Source: VM Group from company statements, CFTC data and own calculations

It is important to note that not all of these impressive gains have come from *inflows* of money, because over this time period the price of most commodities in the indices have risen sharply. Our estimate of the split is shown in the table above. Although we calculate there were inflows of money in 2006, that year saw a negative valuation change, due to the fall in the price of oil and gas, which are heavily represented in the indices, particularly the GSCI.

The situation in 2008 has been interesting. The CFTC in a study³ released on 11th September gave figures for their estimates of the evolution of AUM of commodity index funds, from \$146bn at the end of 2007, rising strongly to \$168bn at the end of Q1 2008 and then hitting \$200bn at the end of Q2 2008. This tallies reasonably closely with our estimates (although we get a slightly higher peak at the end of Q2 2008⁴), which are updated weekly and therefore can give us a guide to movements after the end of Q2 2008. This shows a dramatic decline, with the AUM falling back sharply to just \$124bn at the end of Q3 2008.

AUM of commodity indices in 2008 (\$bn)

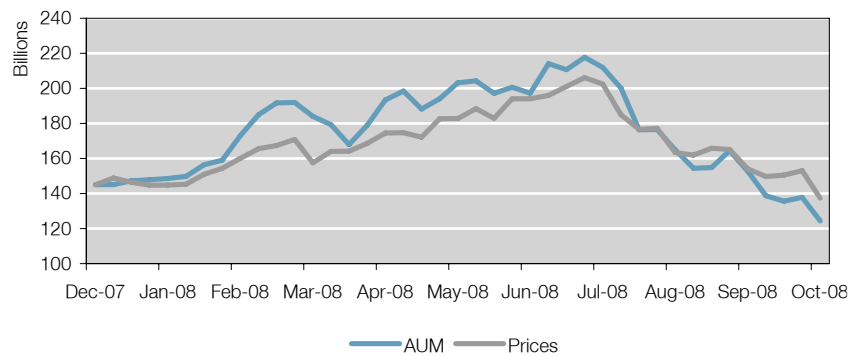


Source: VM Group

Much of these gains and falls have been due to the rising and falling price of the underlying commodities, but also because of inflows and outflows. The following chart shows how our estimate of the evolution of commodity index funds AUM compares, if simply the amount of money in the funds at the start of 2008 (\$146bn) had remained the same and the valuation simply changed in line with changing commodity prices. When the AUM is rising faster than would be the case if it had simply increased in line with the commodity prices, it implies inflows of money from investors; where it is falling faster, outflows. Overall this year we have seen outflows, but they are modest in comparison to the changes seen by fluctuating commodity prices.

³ See <http://www.cftc.gov/newsroom/generalpressreleases/2008/pr5542-08.html>

⁴ The reason for this is probably because not all funds labelled as index funds by the CFTC invest in all commodities, and to the extent there was bias towards agricommodities (for which we have data) compared with other commodities our numbers, when scaled up for all commodities, will be too high.

AUM of commodity indices in 2008 compared with movements if just reflecting price changes

Source: VM Group

Base metals

So what does this imply for these indices holdings of base metals? The share of base metals in each commodity index varies. The following table gives a guide to some of the commodity indices, although note that the % held in each commodity is often not fixed, and varies with prices and other factors.

% AUM of indices in base metals

	S&P GSCI	Dow-Jones AIG	Reuters/CRB	Rogers International Commodity Index	Deutsche Bank Liquid Commodity	Diapason Commodities Index	JP Morgan CCI
LME nickel	0.52	1.81				1.46	0.83
LME zinc	0.45	2.10		2.00		1.79	1.15
LME aluminium	2.42	7.50		4.00	12.50	5.40	6.24
LME lead	0.33			2.00		0.50	0.50
LME copper	2.66			4.00		6.66	6.31
COMEX copper		6.90	5.88				1.17
LME tin						0.20	0.26
Total	6.38	18.31	5.88	12.00	12.50	16.01	16.46
As of	Oct 7th	Sep-08	Latest available	Latest available	Latest available	Latest available	Latest available

Source: VM Group

As can be seen, the % held in base metals goes from a low of just 6.4% in the S&P GSCI, to 18.3% in the Dow-Jones AIG. Things are further complicated by the existence of funds that link only to a subset of these indices, e.g. metals, or energy. And clearly, the AUM of funds linked to each index varies and changes over time. Although it might be thought that this makes estimating how much metal is held by commodity indices almost impossible, there are some factors that simplify the process. Despite the plethora of commodity indices, we estimate about 85%-90% of the AUM held by commodity index funds is linked to either the S&P GSCI or the Dow-Jones AIG. Furthermore, we believe most of this is held in funds that link to the whole index, rather than subsets.

Thus in order to calculate the amount of metal, we have taken our estimate of the AUM in billions of dollars for the commodity indices, and the ratio held in each metal at the end of each quarter⁵, and then divided by the price. For the end of Q3 2008 we have also estimated the contracts held, and compared this to the latest estimate of open interest (for the LME we have used market open interest).

There are two notable findings. The first is that, with one exception, the metals have on the whole only a small share of open interest. The second is that the amount held has not changed that much this year. In terms of share of open interest, the commodity index funds at end Q3 2008 accounted for between 5%

⁵ Here we look at metals with the two major index fund positions. Other metals are owned by the index funds, such as tin and platinum, but not by the S&P GSCI or the Dow-Jones AIG, and as such their market presence will be very small

in lead and 11% in nickel, not a particularly large amount. The exception is Comex copper, where the index funds account for a huge 57% of the open interest. However, this is clearly a special case, as the Comex copper market is only a small part of the copper market as there is also the LME copper market, where index funds account for just 3% of the open interest. Collectively, the commodity index funds in copper account for 9% of Comex and LME open interest, in the middle of the range for the other base metals. By comparison, in agricommodities the commodity index funds tend to account for a much higher share of open interest, as high as 40% in some cases.

On the issue of how the index funds holdings have changed over the year, the peak in volume was reached in mid-March, when it was about 17% higher on the start of the year, and since then it has fallen back by about 22%. Given the commodity index funds' relatively small share of open interest, however, these swings will not have had a major market impact. The sharp decline in commodity index AUM has been mainly due to the sharp fall in commodity prices, not the other way around.

Index Tracker (in S&P GSCI and Dow-Jones AIG) holdings of base metals in volume, and for Q3 08 contracts and as a % of metals open interest

	End Q1 08	End Q2 08	End Q3 08		End Q3 08, contracts	End Q3 08 Index Trackers as % open interest
COMEX copper	1.28bn	1.31bn	1.12bn	lb	44,972	57%
Nickel	90,752	92,988	79,896	tonnes	13,315	11%
Zinc	944,353	967,620	831,384	tonnes	33,255	8%
Aluminium	2,531,488	2,593,858	2,228,657	tonnes	89,146	8%
Lead	177,018	181,380	155,842	tonnes	6,233	5%
LME copper	399,579	409,424	351,779	tonnes	14,071	3%

Source: VM Group, estimates, based on CFTC and company data.

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China – the long march continues

*“If you can keep your head when all about you
Are losing theirs and blaming it on you,
If you can trust yourself when all men doubt you,
But make allowance for their doubting too ... you'll be a Man my son!”*

Rudyard Kipling

Until mid-2008, investing in commodities seemed like a one-way bet. Prices were going in only one direction – up. All the talk was of ‘super-cycles’, ‘changed parameters’ and endlessly growing demand. We have, of course, been here before; all that’s changed is that memories have got shorter. The truth is, sometimes the glass is a little more full/less empty, at other times a little more empty/less full. That’s the commodities’ dilemma – everything moves, and all the time. Right now, it feels like the glass is half empty. Prices have hit fresh records in the past two years for just about every metal and agricultural commodity, and crude oil too. There had been a sense that demand was growing so strongly that supply could not possibly keep up. But this view has been badly dented by the US-led credit crunch, which has cut economic growth expectations everywhere, and popped the commodity bubble. As short-term investment funds everywhere have sold everything in favour of cash, commodity prices overall – not just base metals – have fallen. Were this simply a return to ‘fair value’ it might be useful; but the difficulty is that base metals have been sold off in anticipation of collapsing demand as a consequence of expected industrial recession. The risk of a self-fulfilling prophecy here is now acute.

Yet if we stand back and examine the longer term, our view is that over the next two decades nothing about the commodity story has changed. Very long-term investors concur. Two of the world’s biggest pension funds, Calpers in the US, and APG, asset manager of the Netherlands’ biggest pension scheme, both said in September they were not making any drastic changes to their commodity investments, despite the recent market upheavals. For those that not only can, but must, work according to very long perspectives, the current shake-out of prices ought to be relished rather than loathed.

For all it spells ultimately is a period in which new commodity projects, including green-field mining projects, and the expansion of existing operations, are put on ice, either because raising finance is prohibitively expensive or because metal prices have fallen so precipitously that the fear is that they might slump below production costs. So far, the latter has not happened. Take copper, for instance, about which we have been quite bearish since the start of 2008. In February this year we forecast a price range for copper (LME 3-month contract) of \$4,500/t-\$6,500/t from mid-2008 to mid-2012. We posited that on our view that the US credit crunch would have more severe consequences than most were assuming.

De-coupling – but not as we know it

At the time this forecast was regarded by some as far too negative; against it was argued that a ‘de-coupling’ of China (and Asia generally) from Western economies, in which China continued to grow at double-digit rates, would help sustain historically high prices for copper and other base metals. The de-coupling argument however, is not so much wrong as beside the point. China cannot escape some negative impact from the wider economic slowdown now upon us all; but we still regard China as a long-term vast growth story, in metals, energy and soft commodities, for reasons we outline below. Putting it metaphorically – if the West is currently midway through its working day, then Asia is just putting on its coat to head off to the office. The chance of a major price recovery in some base metals looks incredibly remote right now, but the longer the pain persists in both capital markets and the underlying ‘real’

economy, the greater the chance there will be of base metal prices spiking to new historic highs early next decade, as a recession-induced cutback in supply runs slap bang into a resurgence of Western world demand and an extension of the prospects for prolonged China/wider Asia growth. For one thing, China's rise to economic power is not simply the result of exporting cheap goods to the West; its growth has been and will be driven over the next two decades more by investment, which accounts for more than 40% of its GDP, and more than half of this investment is estimated to go into infrastructure and property.

Taking copper as a benchmark, copper prices still have far to fall before current production levels are threatened, given that some 90% of copper producers are profitable at \$3,000/t. What *will* impact copper supply – and supply of other metals – is not so much falling demand, but the constraints of raising finance in the current capital markets' uncertainty. Paradoxically, if China's economic growth does *not* slow in line with slower growth elsewhere, mine supply of base metals will struggle to meet rising demand over the long-term. The two biggest economies of Asia currently sit at number 133 (China) and 167 (India) in the world league table of GDP per capita,⁶ with \$5,300 and \$2,700 respectively. Even if they simply doubled that, it would do no more than bring China up to position 97 – currently occupied by Iran – and India to the level of Samoa, currently number 132.

Standing on Asia's shoulders

Commodity demand growth is going to remain very strong for the next two decades, and possibly longer, largely as a result of the pressing need for China, and other fast-developing economies, to play catch-up with the more advanced economic nations. This is especially true because the world's population is not just growing – China alone will need to feed some 400m new mouths that are likely to be added to its current 1.3bn population between now and 2050 – but it is becoming rapidly more urbanised in those regions, where population growth is likely to be biggest, Asia especially. This is a demographic revolution, a shift from agrarian to industrial society, similar to that which has already happened in more advanced economies – the US labour force has dropped from being roughly 70% agrarian at the start of the 20th century to about 3% today. What happened to the US workforce and the country's wider economic base has only just begun to be repeated across much of Asia in the 21st century. The radical changes this will bring not just to Asia but the global economy underpin what is inevitably going to be extremely strong demand growth, despite the current slowdown, for just about every commodity.

China national accounts GNI 1980-2007 (current prices)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
GNI (m, Yuan)	7,806,080	8,302,430	8,847,920	9,80,0050	10,806,820	11,909,570	13,517,400	15,958,670	18,473,910	21,180,800	25,418,120
GNI (m, Dollars)	941,647	1,002,835	1,068,815	1,183,795	1,305,634	1,438,883	1,633,121	1,928,121	2,254,478	2,656,420	3,341,178
Per Capita GNI (dollars)	775	817	864	949	1,039	1,137	1,282	1,504	1,747	2,047	2,559

Source: UN Comtrade 2008

How fast will Asia urbanise? According to a 2006 Asian Development Bank (ADB) report,⁷ by 2030 Asia's urban population will have grown by some 70%, to more than 2.6bn people. An additional 1bn Asian citizens are now shifting away from the land, into towns and cities, requiring prolonged and substantial investment in basic infrastructure. The ADB illustrates the impact of this country-to-town influx by pointing out that, each and every day, there are another 120,000 people “added to the populations of Asian cities, requiring the construction of more than 20,000 new dwellings, 250 km of new roads, and

⁶ The World Factbook 2008, CIA: <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2004rank.html>

⁷ Urbanization and Sustainability in Asia: <http://www.adb.org/Documents/Books/Urbanization-Sustainability/urbanization-sustainability.pdf>

additional infrastructure to supply more than six megalitres of potable water.” Within Asia, the biggest urbanisation growth will be in China, with India close behind; China will account for almost one-fifth of projected total world urban population growth during 2006-2030. At its crudest level, the demand for buildings, roads, railway connections and power generation (never mind cars, washing machines and flat-screen TVs) will continue to grow at an unprecedented rate. The current international economic slowdown/recession will delay – but not destroy – the momentum behind this, largely because that momentum can be self-sustained. Thanks to China’s political structure (its centralised command economy) and its high rate of savings (giving it the ability to mobilise finance for capital development), Beijing can pursue its grand ambitions relatively – although not completely – untouched by paralysis in global capital markets.

% Population under 15 years

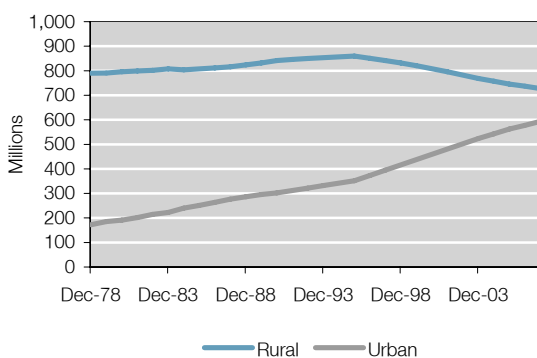
Country	Year	Total
India	2008	31.4
Malaysia	2008	29.8
Vietnam	2008	27.2
Indonesia	2008	27.1
Thailand	2008	20.7
Norway	2008	18.2
Denmark	2008	17.6
Netherlands	2008	17.3
United Kingdom	2008	16.7
Canada	2008	16.1
Belgium	2008	15.8
Spain	2008	14.0
Germany	2008	13.1
Italy	2008	13.1
Japan	2008	12.9

Source: Fortis

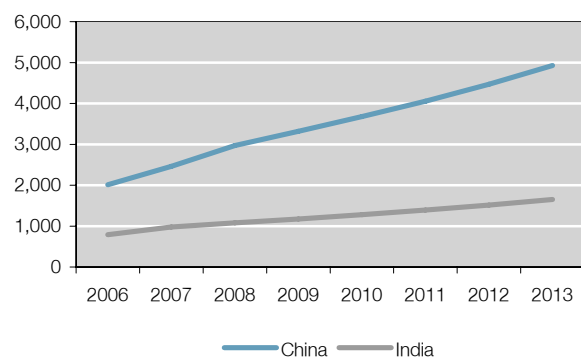
Population Growth Rate 2008

Country	Total in 1000's	Men/100 women	Annual population growth rate %
China	1,336,310.8	107	0.6
India	1,186,185.6	107	1.5
United States of America	308,798.3	97	1.0
Japan	127,938.0	95	0.0
Viet Nam	88,537.3	100	1.3
Germany	82,534.2	96	-0.1
Thailand	64,316.1	95	0.7
France	61,945.6	95	0.5
United Kingdom	61,018.6	96	0.4
Italy	58,945.7	95	0.1
Spain	44,592.8	97	0.8
Canada	33,169.7	98	0.9
Netherlands	16,450.0	98	0.2
Belgium	10,480.4	96	0.2
Denmark	5,453.2	98	0.2

Source: UN Comtrade

China becomes more urbanised

Source: Reuters Ecowin

China and India: GDP per capita, \$

Source: UN Comtrade

Two power stations a week, an airport a month

China’s ambitions certainly are grand, but not grandiose – its central planners are kept at their desks late into the night trying to juggle a vast range of (sometimes contradictory) demands. Its current Five Year Plan, the 11th (covering 2006-2010) promises substantial energy savings and enhanced fuel efficiencies, as well as much greater controls over environmental pollution, but it has to keep growing in order to meet the basic needs of urban growth. Simply to keep pace with its growing energy demand, China is building on average two new power stations every week. The country’s planned railway expansion is vast, and vital. According to the World Bank, China’s creaky railway network carries 25% of the world’s rail traffic on just 6% of global track length, and can handle only 40% of demand for rail freight. By the end of 2007 China had an

estimated 78,000km of rail track; this is due to rise to 120,000km by 2020, although Chinese officials claim the expansion will now happen by 2015. China's aviation sector is also growing fast – in the space of two decades its air passenger traffic has increased by more than 26 times, to 185m passengers in 2007. China now intends building new 97 airports by 2020, in addition to the 142 it had at the start of 2007. It currently has three airports with an annual handling capacity of more than 30m travellers; that will grow to 13 airports by 2020. Beijing's new airport terminal – which from scratch took four years to plan and build – is the world's largest. Between 2001-2005 China spent more on state-owned fixed assets than in the whole of the previous 50 years.

This developmental spurt has its own costs, both social – urban developments regularly ride roughshod over local protests – and economic, with the highest road tolls in the world, on an adjusted exchange rate basis, and more such tolls than anywhere else in the world. But in terms of commodity demand – base metals, cement, steel, electricity – this ferocious growth trajectory explains why many commodities have risen in cost so much in the last two years, and will help underpin relatively high prices for such commodities going forward.

Along with this momentum towards much higher levels of urbanisation will come, inevitably, much greater rates of economic activity and growth, and a much greater upward pressure by urban dwellers for the *accoutrements* of middle-class existence – the family car, the family-owned home, the yearning for travel (both domestic and international), and the kind of consumerism that people living in the West take for granted.

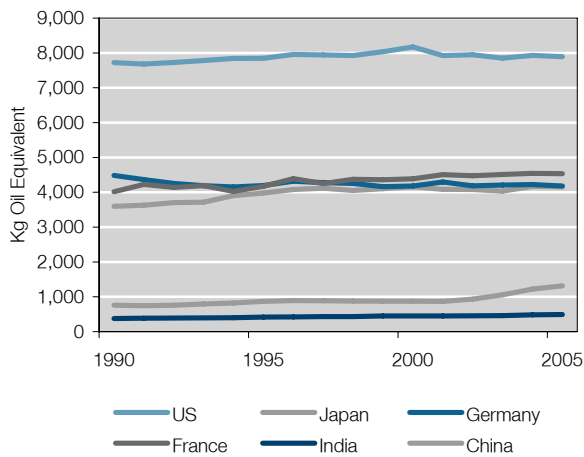
China's middle class – just like us

The confidence we have that, over the long-term, commodities' demand will continue growing strongly as a result of the inertia behind the growth of China and India, is not based on demographic momentum alone. It is as much to do with the interconnection between politics and economics. The *Harvard Business Review* of March 2006⁸ published a report by Gallup into the aspirations of Chinese consumers. It pointed out that while “by and large, affluent urban dwellers already own a fair amount of what they want”, this category of consumer was largely only to be found in Beijing, Guangzhou and Shanghai. There are more than 20 other cities now growing rapidly in China, places which most of us have never heard of, yet which over the course of the next two decades will see more than 300m new urban dwellers, the majority of them migrants from the country's rural areas. Their aspirations will be little different from their more established brethren in Beijing or Shanghai.

And it is worth noting that official policy has shifted from Deng Xiaoping's famous dictum of 30 years ago, which ushered in China's economic reforms, of “getting rich first” as a developmental philosophy, to a slogan (as introduced by the 11th Five Year Plan) of “common prosperity” – in other words the idea that more people and more regions are enabled to share the fruits of economic growth. While the 11th Five Year Plan prioritises what it defines as “steady” economic growth (as opposed to the 10th Plan, which emphasised the need for “relatively rapid development”, the adjective “steady” is seen by the Chinese leadership as implying greater emphasis upon long-term, sustainable, growth. China's leaders are thus embarked on a strategy of raising up, not levelling down, the social and economic wealth of the whole nation. For commodities, this implies an extended run of growing demand – during which financial crises that create supply-side threats will, retrospectively, be seen as little more than a blip.

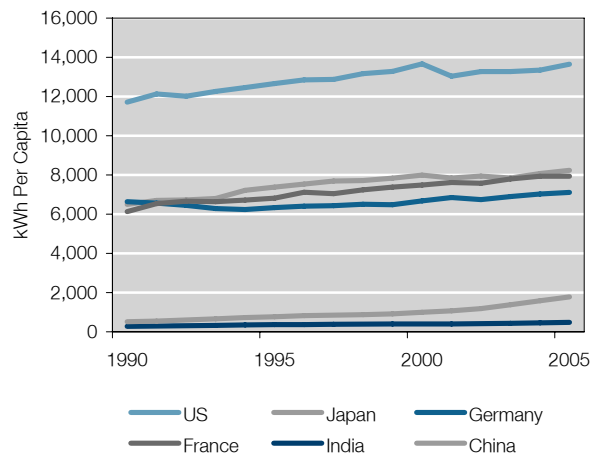
⁸

Energy use per capita



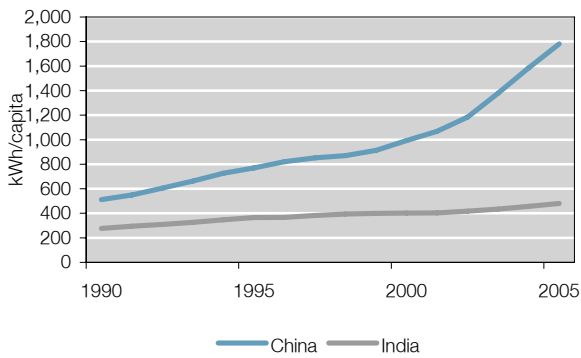
Source: World Bank

Electrical power consumption per capita



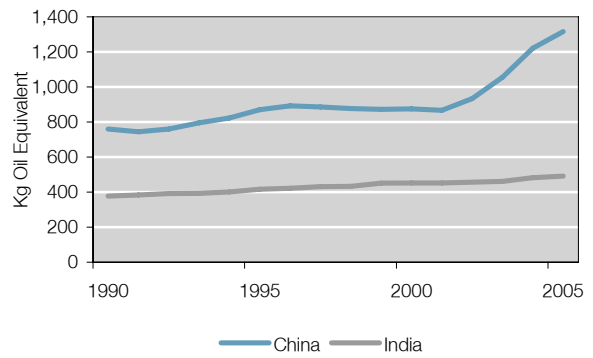
Source: World Bank

Electrical power consumption per capita



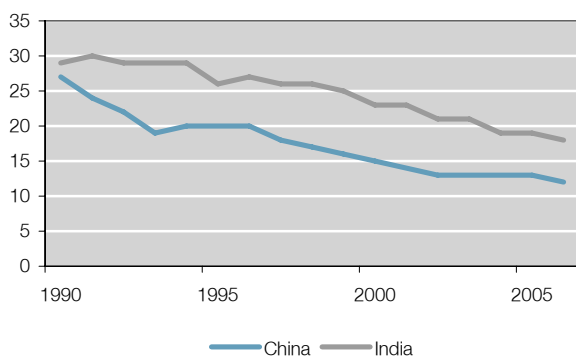
Source: World Bank

Energy use per capita



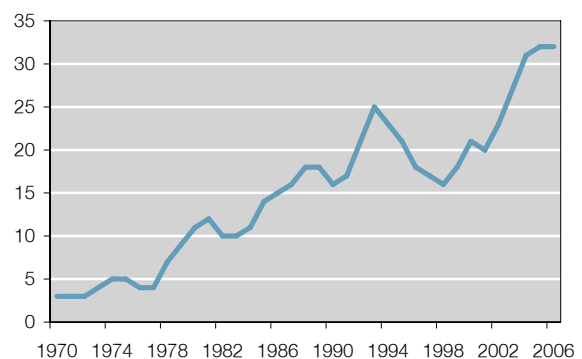
Source: World Bank

Agriculture as % GDP



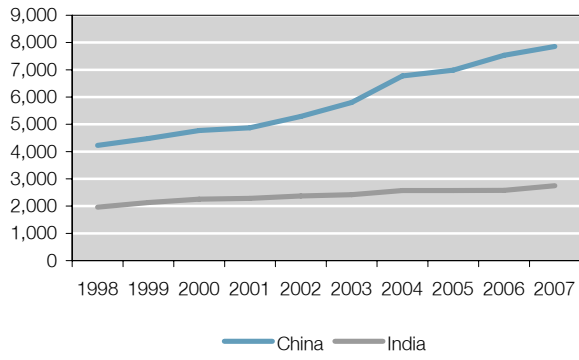
Source: World Bank

China: imports of goods and services as %GDP



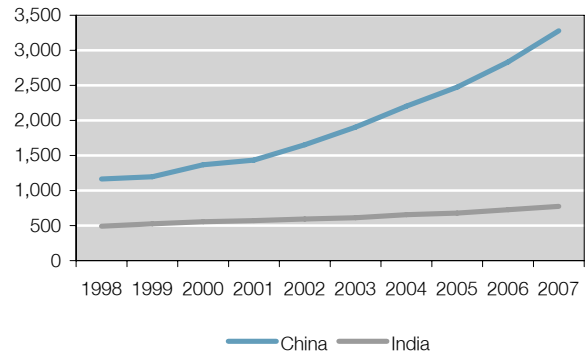
Source: World Bank

Oil consumption (1000 bpd)



Source: BP Statistical World Energy Review 2008

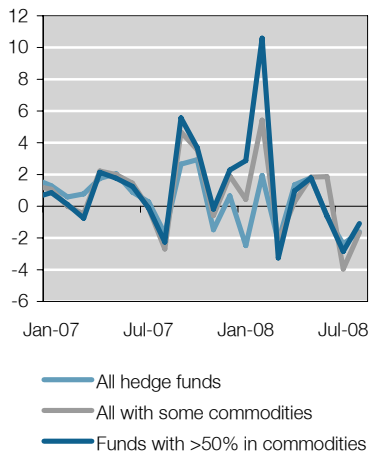
Electricity generation (Terawatt hours)



Source: BP Statistical World Energy Review 2008

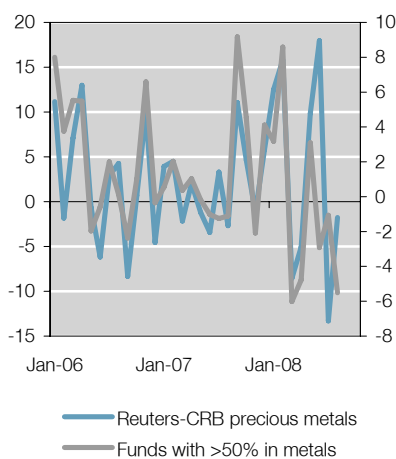
Hedge funds activity

Hedge fund returns by commodity weighting (% monthly)



Source: VM Group from Barclay Hedge Fund Database

Hedge fund returns in metals (% monthly)



Source: VM Group from Barclay Hedge Fund Database

News

- Oct 6th: Democrat Representative Barney Frank, the chairman of the House Financial Services Committee, vowed to increase regulation on hedge funds and/or the markets they operate in, including greater disclosure of their investment activities and a requirement for higher capital levels.
- Sep 5th: Switzerland's financial regulators said they will bring the country's tax burden on hedge funds and private equity funds into line with competing centres such as London and New York.

Analysis

- Losses in August: our estimate of hedge fund metals' holdings

August might have been the calm before the storm for hedge funds, at least according to the returns shown in the Barclay database. All hedge funds lost on average 1.62% during the month, whereas those with some commodity exposure saw a 1.67% drop (with 641 reporting a loss and only 259 reporting gains), and those with more than 50% in commodities (as estimated by VM Group) shed 1.09%. However, the funds that invest more than 50% of their assets in metals did much worse, dropping 5.5% on average, and with some individual funds performing particularly badly – the Artemis silver fund is reported as having lost 89.9% and the AIS gold fund 38.9%.

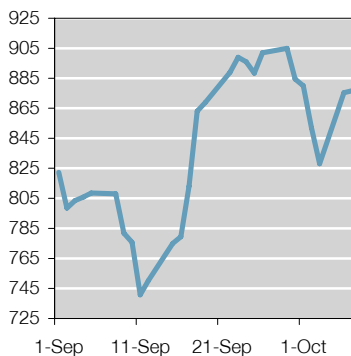
Nevertheless there remains a lot of hedge fund interest in metals. These are ballpark figures only, but in August we identified 518 funds worth \$130bn that had collectively \$10.3bn of investments in metals or mining equities. Of this we can identify \$5.8bn held in base metals and \$3.8bn in precious metals. In January we found slightly fewer funds, 475, but they had \$11.2bn in AUM held in metals, with \$5.6bn identifiable in base metals and \$3.6bn in precious metals.

Outlook

With oil prices sharply lower than they were earlier in the year, the CFTC's neutral findings on supposed manipulation of prices, and the severe financial and economic crisis, one would think some of the heat has gone out of the political attacks on commodity hedge funds. However, the US House of Representatives continues to target speculation in commodities, and hedge funds in general remain under suspicion, although so far most of the political ire has focused on the more sensitive energy and food markets. Metals' hedge funds had a poor August and could see larger losses with financial and commodity markets under extreme strain, although gold funds should have performed better.

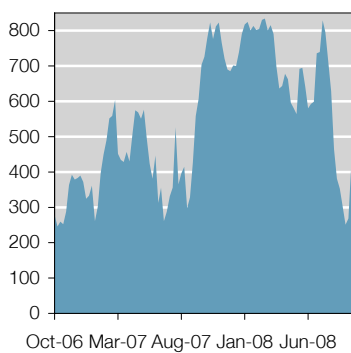
Gold

Gold price (\$/oz)



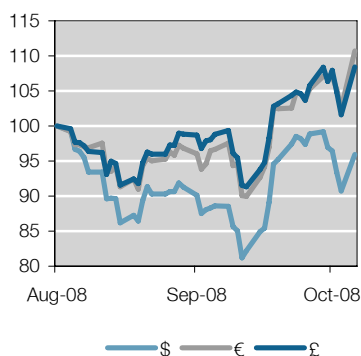
Source: London Bullion Market Association

Comex: Non-commercial net position (tonnes)



Source: VM Group

Gold in \$, €, £ (Aug 1st 2008 = 100)



Source: VM Group from Reuters Ecowin

News

- Oct 7th: The US Mint ceased production of ¼ oz and ½ oz American Eagle gold coins due to unprecedented demand for all gold coins. The move will allow it to focus on producing the 1 oz Eagle coin.
- Sep 26th: Gold sales by the signatories to the central bank gold agreement (CBGA) in the 2007-2008 year (which ended on 26th September) were just over 357t, VM Group estimates. This is the lowest total since the CBGA began in 1999.

Analysis

- Record highs in euro and sterling, dollar price rises too

Gold continues to be an idiosyncratic safe-haven, but its gains at the start of October, while overdue, suggest the metal is playing that role and that the price will continue to rise. One issue of particular relevance in gold's price rise has been the dollar's strength, which is masking gold's gains. After a brief but sharp relapse, the dollar continued to rise in September and early October, both against a basket of currencies and (perhaps more crucially for gold) against the euro. This deflates the dollar gold price; when measured in euros, for instance, gold's PM fix on 8th October, at €660.95/oz, was an *all-time* high, not just in euros, but also in sterling.

Of course this is no comfort for US-dollar investors, who see the price (which fixed on the 8th October at \$903.5/oz) still 10% below its high of \$1,011.25/oz, hit on 17th March. However there are reasons to think the rally in the dollar price will continue and possibly to new all-time highs in that currency too. It is true that the financial crisis, which is spreading seemingly inexorably from region to region and sector to sector, is not unalloyed good news for gold. Deleveraging, a flight to cash or Treasury bonds, and the gains in the dollar, all work against gold in the short-term. But the medium-term consequences seem only bullish – the Federal Reserve and other central banks are pumping billions of dollars of liquidity into the system, ignoring any inflationary consequences, whilst the lack of trust in financial assets boosts the case for something simple and tangible such as gold. This can be seen in various market events. Demand for the gold ETF continues to trend upwards, while coin sales have increased substantially to the point where demand is being rationed whilst the mints catch up. Central bank sales are relatively modest, and the rise in lease rates suggests that lending is being pulled too.

Outlook

The signs are in place that gold is set for another assault on the \$1,000/oz level, even though the dollar is strengthening and the talk is now of deflation, not inflation. Further macro-economic jitters will simply encourage fresh investors to seek gold, not just cash. Short-term London PM fix: \$860/oz-\$1,050/oz.

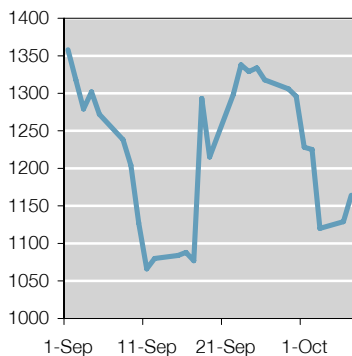
Market data (September unless stated)

Prices	\$/oz	€/oz	Rand/kg	ETF investment	Tonnes holdings	Monthly change	Lease rates	1m	3m	6m	12m	Option volatility (end month, %)	
Average	827	575	213,739	US (2)	818.1	107.2	Average	0.46	0.59	0.83	0.85	1-month	42.50
High	905	628	241,791	UK (2)	175.0	0.3	High	0.78	0.92	1.21	1.32	3-month	39.50
Low	741	527	192,276	Aus	12.4	(5.5)	Low	0.17	0.28	0.54	0.53	6-month	37.30
				S. Africa	26.2	4.5						12-month	35.85
				Swiss	69.9	11.9						24-month	35.45
				India (4)	5.7	0.6							
				Turkish	1.3	-							

Source: Prices: London Bullion Market Association, Others: VM Group Note: Indian ETF holdings calculated from rupee amounts and thus are approximations only

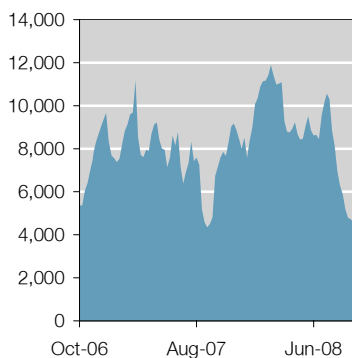
Silver

Silver price (cents/oz)



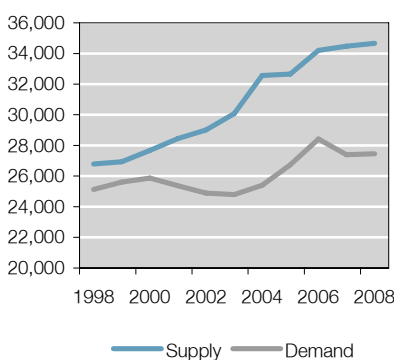
Source: London Bullion Market Association

Nymex: Non-commercial net position (tonnes)



Source: Comex

Silver supply and demand (tonnes)



Source: "The Silver Book", VM Group/Fortis

News

- Oct 8th: Fresnillo, the London-listed Mexican silver miner, reported a rise of 3.5% in its Q3 production and said it was on target to achieve its full year target of 34 Moz for 2008.
- Oct 2nd: Peru's (the world's leading producer) output of silver was 324.06t in August, 9.7% higher than in the previous year.
- Sep 29th: Mexico's silver output was 238.87t in July, 1.4% higher year-on-year.

Analysis

- Fundamentals prevent gold-style gains

Silver has fallen and rallied along with gold in the past month, but it continues to lose ground, with the silver/gold ratio hitting almost 76 on 9th October, its highest since November 2003. On that day silver fixed at \$11.64/oz, up from its low of \$10.66/oz on 11th September, but only by 9.2%, compared with gold's rise over that period of 19.3%.

This underperformance is to be expected. These are unusual times in financial markets and most assets are falling in price. Even gold, the traditional safe-haven asset when all else is collapsing, is finding the going hard. Silver, which has a large industrial offtake, was never going to be able to keep up.

It cannot be assumed that the sharp decline in the silver price from its highs of over \$20/oz earlier this year will see a major reduction in the supply of silver, as the economics of the silver market are unusual. At the London Bullion Market Association's annual conference, held in late September in Kyoto, Japan, Mark Fellows of Brook Hunt noted that silver is mined mainly as a by-product of other metals (with 20% from primary copper mines, 18% from zinc and 7% from gold), while just 18% comes from primary silver mines and 36% from where it could be considered a co-product. This means that the silver price is much less important to future silver output than is the case with many other metals' prices. Instead what matters is the production profile for other metals, and Fellows noted that this suggests a large increase in silver mine output on the way. On a more positive note, base metal expansions are clearly not insensitive to base metals prices, and the sharp decline in copper and zinc prices is likely to reduce the future output of silver.

Outlook

Silver remains a tricky one to call. Not just because of the great uncertainty about financial markets and economic optimism, but also as to how silver will react. So far it has shown little of gold's safe-haven support, but investors continue to have faith – the BGI silver ETF now has 6,877t, up 406t from its level on 1st September. If gold starts to move significantly higher we expect silver will follow to a degree, but with the fundamentals poorer than in gold we expect those investors will continue to be disappointed. Short-term London PM fix: \$11.00-\$14.00/oz.

Market data (September unless stated)

Prices	\$/oz	e/oz	p/oz	Lease rates	1m	3m	6m	12m	Imports	Exports	ETF offtake (tonnes)		Option volatility (end month, %)			
											Holdings	Change				
Average	12.35	8.58	6.86	Average	0.06	0.21	0.43	0.39	USA (Jul)	141,252	112,009	US	6852	378	1-month	54.00
High	13.58	9.30	7.54	High	0.46	0.52	0.85	0.95	Japan (Jul)	426,610	728,848	UK*	423	43	3-month	50.00
Low	10.66	7.53	5.94	Low	(0.18)	0.03	0.22	0.14	China (Aug)	497,985	177,132	Swiss	8,152	536	6-month	46.00
															12-month	42.00
															24-month	41.00

Source Price: London Platinum and Palladium Market, Others: VM Group

* Includes 'basket' ETF

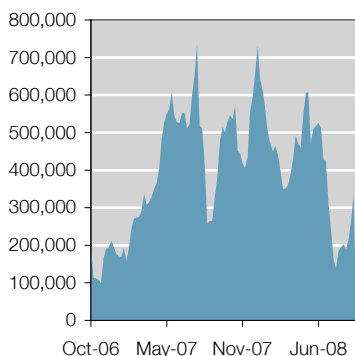
Platinum

Platinum price (\$/oz)



Source: London Platinum & Palladium Market

Nymex: Non-commercial net position (ounces)



Source: Reuters Ecowin

Platinum/gold ratio



Source: VM Group

News

- Oct 7th: Impala Platinum offered Rand 21.2bn (at prevailing share prices) for fellow South African miners, Mvelaphanda Resources and Northam Platinum.
- Oct 7th: Japanese car sales in 1H 2008 were the lowest for 34 years, at 1.54m units.
- Oct 2nd: Xstrata, despite abandoning its formal bid for Lonmin due to market conditions, increased its stake in the company by 14.2%, to 25%.

Analysis

- Short-term = grim: mid-term = better

Fixing at \$959/oz on 3rd October, platinum was nearly 54% lower than where it started July and traded at only 1.15 times the price of gold. Indeed, eventual parity between the two metals cannot be ruled out, which would be the first time this has taken place since December 1996. Platinum has subsequently rallied from this low, but only to \$1,008/oz on 7th October. Has the slump in prices gone too far? It is hard to make a bullish short-term case, as it is evident that car sales in Europe (where platinum's largest market is) and elsewhere are not about to stage a strong recovery. But some possibilities are: 1) Will the sharply lower price encourage a boom in jewellery demand, particularly in China? This sector is known to be price-sensitive but on the other hand it will be fighting against an economic slowdown. 2) Do investors see current prices as bargains? Investment demand has shown tiny signs of life – the ETFs appear to have stopped seeing outflows, with the ZKB product actually seeing its holdings rise from 75,082 oz at the start of September to 97,381 oz by 3rd October – but the dramatic decline in prices seen this year will surely make investors wary of adding major new positions. 3) Is it possible that short-term demand been artificially low due to an excess of stocks of platinum with the car companies? These could have arisen if the car companies panic stockpiled metal in 1Q 2008 at the height of the South African electricity crisis, for fear of being unable to get hold of any later if things got even worse. This is almost impossible to prove, with data (such as imports) not being conclusive; but if it was the case then at some point, even with car sales falling, the companies would have to enter the market again. The medium-term outlook for platinum has more going for it. At current prices a fair chunk of global production is not profitable, and the South African power crisis plus the credit crisis is likely to hinder large production increases for a while. Furthermore trends in automotive design still favour platinum over this time period, with emissions legislation and a drive for greater fuel economy all tending to mean more platinum is needed in a car's catalyst.

Outlook

The bears are ascendant and platinum might fall further, particularly if the expected recession looks like turning into an outright slump. But if car companies have been using up excess stocks, then we might see some modest gains in coming months. Short-term London fix: \$850/oz-\$1,250/oz.

Market data (September unless stated)

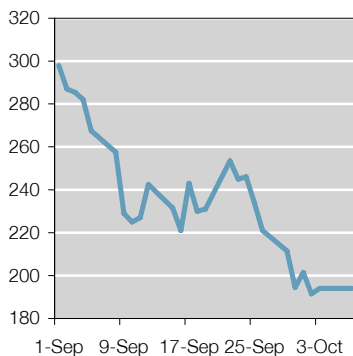
Prices	\$/oz	Lease rates	1m	3m	6m	12m	Trade (kg)	Imports	Exports	ETF offtake (oz)	*ETF Securities	ZKB	Option volatility (end month, %)
Average	1,233	Average	1.1	1.6	2.2	2.6	USA (Jul)	477	214	Aug-08	210,989	75,554	1-month 50.00
High	1,442	High	1.5	2.0	2.7	3.0	Japan (Jul)	4,906	2,423	Sep-08	199,569	97,381	3-month 46.00
Low	1,073	Low	0.5	0.8	1.2	1.9	Switzerland (Aug)	8,868	5,034				6-month 43.00
							China (Jul)	5,112	4				12-month 40.25
													24-month 39.00

Source Price: London Platinum and Palladium Market, Others: VM Group

*ETF Securities includes platinum held in 'basket' ETF

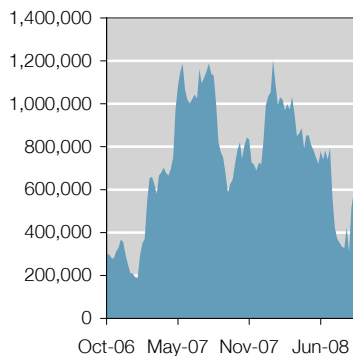
Palladium

Palladium price (\$/oz)



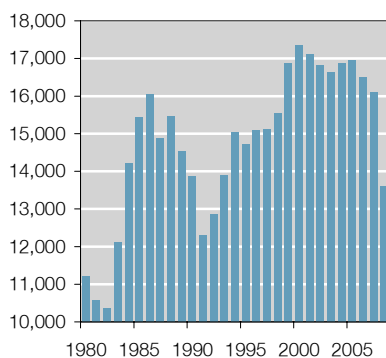
Source: London Platinum & Palladium Market

Nymex: Non-commercial net position (ounces)



Source: Reuters Ecowin

Annual US light vehicle sales (000s)



Source: Reuters Ecowin

Note: 2008 VM Group forecast

News

- Oct 3rd: Norilsk Nickel produced 1.78 Moz of palladium in 1H 2008, down from 1.84 Moz in 1H 2007.
- Oct 1st: US car sales in September were a seasonally adjusted 1,038,500 units, 23% lower than the same month of 2007. This was the worst year-on-year decline since October 2002, when the year-on-year comparison was affected by incentives given after September 11th; before that the worst decline was January 1991.
- Sep 25th: The US House of Representatives approved a \$25bn loan to the US auto industry. The money is to help the car companies retool factories and develop technology to aid fuel efficiency and new engine technology.

Analysis

- Car sales' woes

On 30th September palladium fixed below \$200/oz for the first time since October 2005, at \$194/oz, battered by evidence of plunging car sales and fears of a global depression. September's US car sales data was a particular blow because it had been hoped that, after August sales were somewhat better than July's, that the US car market might have bottomed. On 6th October Toyota's president, Katsuaki Watanabe said US sales would now not reach his earlier prediction of 14m (down from 16.1m in 2007) and we concur. So far (January to September) 10.55m new cars have been sold in the US, 12.8% below the number of cars sold in 2007. If full year sales are 12.8% down on 2007, that would be 14.03m units. However, if the remaining three months of 2008 see a 23% year-on-year decline (as seen in September), full year sales will be just 13.6m units, 15% down year-on-year. This would be equivalent to 2.5m 'lost' units, about the size of the UK's car market – or at least the size of the UK market in normal times; September sales in the UK this year were 21.2% lower year-on-year.

The one bullish note might be that the market is probably now pricing in the very worst outcome for these car markets, and any positive news could spring a short-term recovery in the palladium price. Of particular interest is China, where car sales fell in August on a year-on-year basis. If September's data shows a recovery, then palladium at \$200/oz could seem like a bargain. There are already some signs of investor interest. The non-commercial net long position on Nymex, seen as the speculative element, rose to 777,226 oz in the week ending 30th September, up from a low of 490,868 oz in the week ending 9th September. ETF holdings have also risen, with the ZKB ETF (based in Switzerland) having reached 450,194 oz by 3rd October, its highest level ever and up from 418,500 oz on 19th September.

Outlook

Serious commentators are invoking a new Great Depression, and it is not surprising that industrial metals are getting hit. But maybe the bears have got rather ahead of themselves. Short-term London fix: \$170/oz-\$250/oz.

Market data (September unless stated)

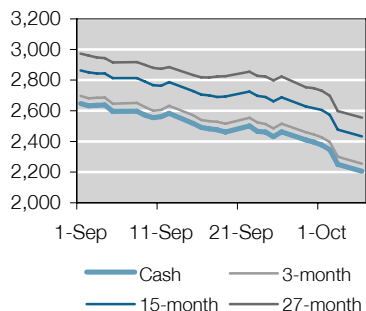
Prices	\$/oz	Lease rates	1m	3m	6m	12m	Trade (kg)	Imports	Exports	ETF offtake (oz)		Option volatility (end month, %)		
										*ETF Securities	ZKB			
Average	246.1	Average	(0.01)	0.19	0.42	0.42	USA (Jul)	600	403	Aug-08	237,946	421174	1-month	52.00
High	298.0	High	0.57	0.77	0.99	0.99	Japan (Jul)	326	1,931	Sep-08	240,628	450195	3-month	47.50
Low	211.5	Low	(0.31)	(0.30)	0.19	0.05	Switzerland (Aug)	12,134	4,963				6-month	44.50
							China (Aug)	1,532	0				12-month	42.00
													24-month	40.75

Source: London Platinum and Palladium Market, Others: VM Group

*ETF Securities includes platinum held in 'basket' ETF

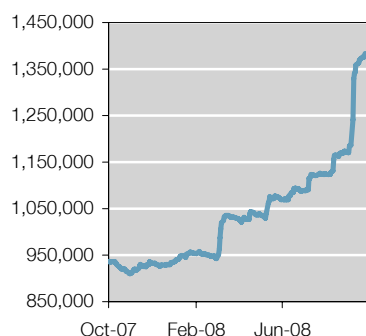
Aluminium

LME aluminium price (\$/tonne)



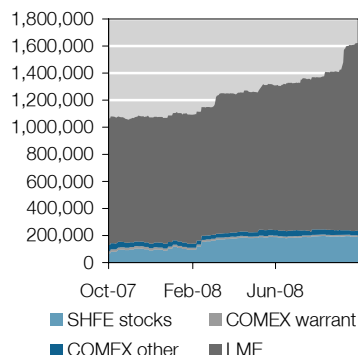
Source: Reuters Ecowin

LME aluminium stocks (tonnes)



Source: Reuters Ecowin

Global exchange stocks (tonnes)



Source: Reuters Ecowin

News

- Oct 7th: Alcoa president Klaus Kleinfeld said that one-third of global capacity is “underwater”, i.e. operating at a loss, at current prices. He also said the firm was cutting back on capital investments due to the global financial turmoil.
- Oct 7th: The European Emissions Trading System (ETS) could “destroy the viability of the Europe’s aluminium industry” without reform, the European Aluminium Association said.
- Sep 25th: Vale and Norsk Hydro agreed to build an alumina refinery in the Brazilian state of Para, planned to be operational from 2011. Initial capacity is planned to be 1.86 Mt, with scope to increase that to 7.4 Mt.

Analysis

- Demand prospects poor, rising stocks bear down on price

Aluminium has never enjoyed the boom seen in other metals and so it is not surprising that it is also not suffering such a fall. However, it is not immune to the global economic slowdown, and the LME 3-month price settled at \$2,255/t on 6th October, its lowest level since December 2005.

The recent lurch lower – it was \$2,513/t on 24th September – can be explained relatively simply by a growing consensus that the developed economies are going to suffer recessions, and perhaps deep ones, and that China and other emerging markets are not going to be able to decouple. The collapse in global car sales in the US and now the EU will shrink demand this year and probably next. For some ballpark figures, if the average car in the US/EU has about 140kg of aluminium and sales this year are 4.1m units fewer than last year, that means 560,000t less aluminium offtake, or about 1.5% of all global demand for the metal. Clearly, other important sectors such as construction are also suffering. Evidence that supply is outpacing demand can be seen by rising LME stocks, which hit 1,387,750t on 6th October, 49.3% higher than at the start of 2008 and up from 1,169,225t at the start of September.

Outlook

Although the downside of aluminium prices should be protected by the industry’s high cost structure, the easing of energy prices is reducing this floor and allowing some previously unprofitable smelters to remain in business. And more primary metal capacity is being added all the time – Vedanta Resources said in September it would invest \$9.8bn in new capacity, based on its view that Indian demand will grow by more than 8%/year until 2020. Conversely, the credit-crunch has meant that some proposed new projects that cannot access cheap electricity are being shelved or delayed. So while we believe short-term aluminium could fall further, particularly if energy prices fall, the medium-term outlook remains solid, based on strongly growing Asian demand. Short-term LME 3-month: \$2,100/t-\$2,400/t.

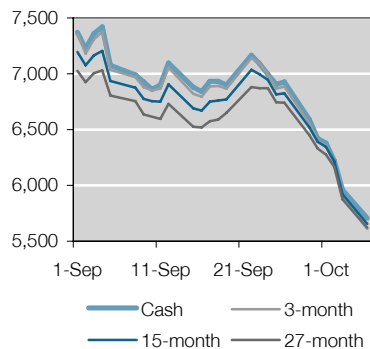
Market data (September unless stated)

Prices (\$/t)	Cash	3-month	15-month	27-month	LME stocks	Tonnes	Prod (kt)	July	August	LME Open Interest (contracts), latest
Average	2,531	2,583	2,749	2,866	Aug-08	1,169,650	Europe	779	784	Aluminium
High	2,646	2,697	2,863	2,973	Sep-08	1,376,600	Americas	716	715	
Low	2,410	2,461	2,628	2,753			Asia	337	334	
							China	1,168	1,190	
							Other	338	341	
							Total	3,338	3,364	

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

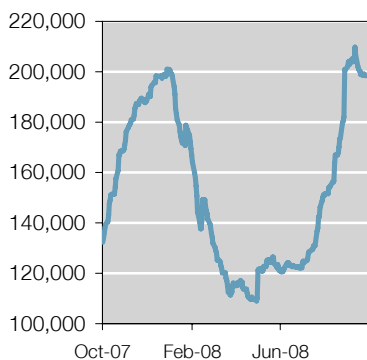
Copper

LME copper price (\$/tonne)



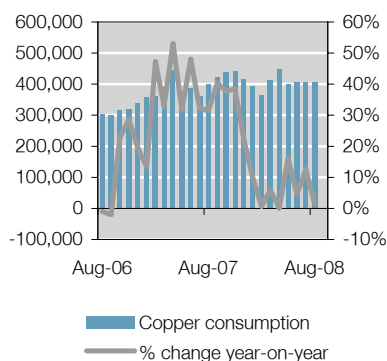
Source: Reuters Ecowin

LME copper stocks (tonnes)



Source: Reuters Ecowin

Implied Chinese copper consumption (tonnes)



Source: Reuters Ecowin

News

- Oct 8th: The Shanghai Futures Exchange (SHFE) halted trading in copper futures for a day after the metal suffered three straight days of limit down closes.
- Oct 3rd: Chilean copper output will be 6.8 Mt by 2012, the country's Copper Commission (Cochilco) predicted. Output in August was 425,524t, 1.2% lower than in August 2007.
- Oct 2nd: Peru's copper output was 108,200t in August, 0.85% down year-on-year.

Analysis

- Price collapses on industrial recession fears

The metal that defied gravity for so long is now looking decidedly sickly. The LME 3-month copper contract settled on 8th October at \$5,440/t, its lowest since March 2007 and 19% down on the year. Copper stocks on the LME have jumped, reaching 209,300t as of 8th October, their highest level since February 2007.

This paints a picture of falling demand, and given the current financial and economic turmoil this is hardly unexpected. With the focus on China in recent years it has all too easily been forgotten that the US, EU and Japan, all of which now seem to face a deep recession, still account for about 37% of global refined copper usage. Demand from those regions was 6.7% lower year-on-year in June 2008 (the latest available data) and is bound to worsen before improving.

The International Copper Study Group (ICSG) has released its latest forecasts for the remainder of 2008 and 2009. This year it expects a surplus of 109,000t, based on a 2H surplus of 235,000t, wiping out a deficit in 1H 2008 of 125,000t. For 2009 it expects the surplus to widen to 275,000t, although notably that implies a smaller surplus than the 2H surplus would have been, if repeated in both halves of 2009. This forecast implies usage growth of 3% in 2008 and 3.4% in 2009, projections which seem right now quite optimistic – indeed the ICSG notes that "the current crisis... may significantly alter current forecasts" although it adds that this could be on both the demand and supply side due to the potential for project cancellations. Interestingly, given the slowdown in Chinese consumption growth (we estimated that implied consumption was just 1.9% higher year-on-year in August 2008) the ICSG says the growth areas in 2009 will be India, Egypt and the Gulf Countries.

Outlook

At the start of this year we predicted copper could fall to \$4,500/t in 2008 or 2009, and this seems ever more likely. The issue now is whether it will fall further. As recently as 2004 it was under \$3,000/t. Governments and central banks are making ever more desperate efforts to stem the financial crisis and limit its economic consequences, and assuming they have some effect prices are unlikely to go that low, but the mood is grim. Short-term LME 3-month price: \$5,000/t-\$6,000/t.

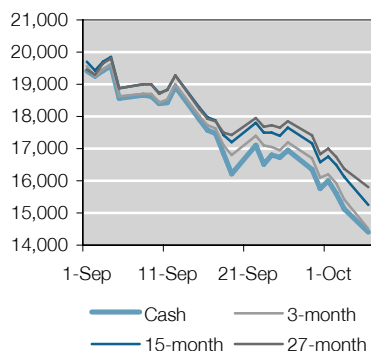
Market data (September unless stated)

Prices (\$/t)	Cash	3-month	15-month	27-month	LME stocks	Tonnes	LME Open Interest (contracts), latest
Average	7,018	6,981	6,877	6,740	Aug-08	173,725	Copper 276,227
High	7,420	7,370	7,205	7,030	Sep-08	199,050	
Low	6,590	6,550	6,520	6,450			

Source: London Metal Exchange

Nickel

LME nickel price (\$/tonne)



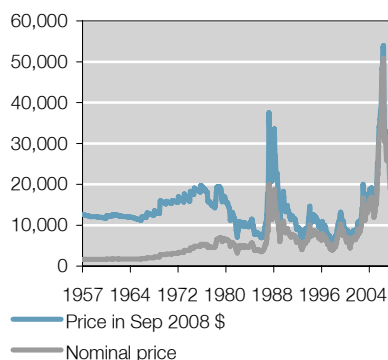
Source: Reuters Ecowin

LME nickel stocks (tonnes)



Source: Reuters Ecowin

Nickel price in nominal and real terms (\$/t)



Source: VM Group from Reuters Ecowin

News

- Oct 8th: The International Nickel Study Group (INSG) forecast a 110,000t surplus of refined nickel in 2009, despite the fact that nickel production this year is likely to fall to 1.41 Mt from 1.43 Mt in 2007. The INSG said that anticipated new start-ups in Brazil, South Korea and New Caledonia will mean that 2009's total global output of refined nickel could rise to 1.55 Mt, while demand will grow much more sluggishly, to 1.44 Mt.
- Oct 6th: Norilsk Nickel's share price fell more than 25% and there were fears that the company could slip into loss-making as a result of the collapse in nickel prices.

Analysis

- The bubble finally pops

Norilsk's latest results figures show just how difficult the nickel market has become. In 1H 2008 its profits nose-dived to \$2.68bn, a third lower than the same period last year. Norilsk accounts for about 20% of the world's annual nickel output and although it is to some extent cushioned by other metal by-products, those too – copper and palladium – have been dropping like a stone. With nickel prices now 70% off their May 2007 peak of \$51,800/t, Norilsk's 2H 2008 performance could be even worse. The company said it achieved an average nickel sale price in 1H 2008 38% lower than the comparable period last year. In Q3 the nickel price has lost almost 30% compared to the first half, while copper prices in Q3 are down a third, palladium is down almost 60% and platinum is less than half its 1H 2008 average.

Outlook

Nickel prices have now lost almost half their value since the end of 2007 and now are back where they were at the end of 2005. As with some other base metals, this is arguably a swing of the pendulum too far. Back then, LME warehouse stocks of nickel were almost 33,000t, the first nine months of 2005 showed a collapse of US stainless steel production (down 5% year-on-year) and in central and east Europe (down 16% year-on-year), and the 60,000t Goro project in New Caledonia was owned by Inco, which forecast production starting in Q4 2007. What has changed? Demand has. The latest estimate from the INSG shows barely any year-on-year growth next year. The only prospect for avoiding a substantial surplus will be if some of the major new projects don't come to fruition – anything is possible in this fragile environment. Crucially, the INSG's projections for next year do not include any allowances for supply-side disruptions and these can have a disproportionate impact, given the relatively small size of the world's nickel market. With prices this low and the threat of a protracted recession looming, many of the world's nickel producers will right now be scurrying to work out the profitability of their planned new projects. Short-term LME 3-month price: \$12,000/t-\$14,000/t.

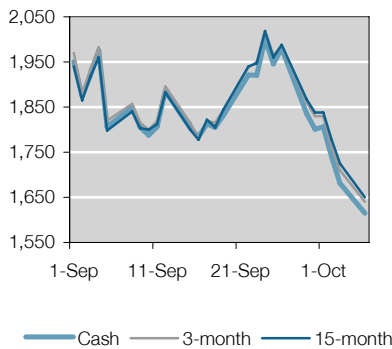
Market data (September unless stated)

Prices (\$/t)	Cash	3-month	15-month	27-month	LME stocks	Tonnes	LME Open Interest (contracts), latest
Average	17,892	18,049	18,388	18,432	Aug-08	48,228	Nickel 77,623
High	19,575	19,600	19,850	19,800	Sep-08	56,034	
Low	16,215	16,695	17,165	17,415			

Source: London Metal Exchange

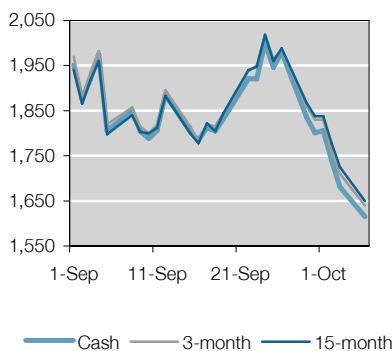
Lead and zinc

LME lead price (\$/tonne)



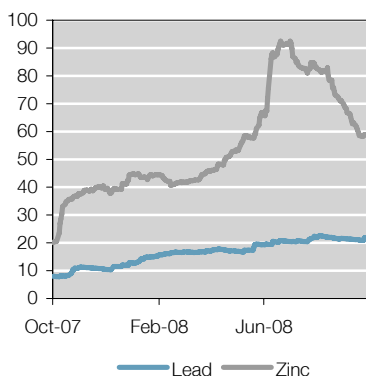
Source: Reuters Ecowin

LME zinc price (\$/tonne)



Source: Reuters Ecowin

LME stocks (Jan. 1st 2004 = 100)



Source: VM Group from LME

News

- Sep 30th: Xstrata partially closed its Kidd zinc and copper operation in northern Ontario in view of a strike planned by members of the Canadian Auto Workers Union. Kidd produces some 140,000t of zinc a year.
- Sep 18th: OZ Minerals, the world's second largest zinc miner, said it planned to cut production in 2009 by 50,000t in response to lower world prices of zinc. That would be a reduction of 35%-40% on its likely 2008 output.
- Sep 15th: Zinc was in surplus to the tune of 77,000t between January-July 2008, according to the International Lead and Zinc Study Group (ILZSG). This compares to a surplus of 26,000t in the same period of 2007. Refined output rose by 4% whilst demand was up 3%. However the surplus has been disappearing – in July there was a deficit of 31,600t.

Analysis

- China's lead exports dry up

Very bizarre things are happening in base metals right now, but perhaps the oddest of all is that China – just a year ago the world's biggest exporter of refined lead – has become a net importer of the metal. Its exports of refined lead in July and August were precisely zero, and exports for the first eight months of the year as a whole were more than 80% down on the same period last year. Back in 2006 its net exports were substantially more than 500,000t. The decline in exports can be dated to June 2007, when Beijing imposed a 10% export tax, but the rapidity of the country's switch to net importer status has been breathtaking. This switch has happened because availability of mine concentrates has plunged, and the country's biggest lead smelters have found it impossible to sustain full production. What optimism there might be for zinc also depends increasingly on the outlook for China's domestic zinc sector. Here too, the country is helping prop up international prices by remaining a net importer of refined zinc in August. In the first eight months of this year China's net imports of the metal rose by almost 37% compared to the same period of 2007, to a cumulative 125,499t, while its exports fell by almost 80%. Its imports of zinc concentrates have also risen sharply, by almost 12% during January-August, to 1.42 Mt, having grown by an astonishing 160% in 2007. But, unlike lead, China's zinc producers are still ramping up capacity at a time when the rest of the world has begun cutting back output.

Outlook

LME warehouse stocks of lead have been in steady decline since the start of August and are now under the peak this year of more than 101,000t, in July, suggesting some pressure from consumers still needing metal. It's difficult to tell right now the impact the collapsing sales of new cars is having on demand for lead-acid batteries (approximately 70% of lead goes into these batteries) but, arguably, older cars are more prone to battery breakdown than new vehicles – so demand should hold up as more of the world's drivers stick by their older vehicle rather than purchase a new model. Short-term LME 3-month prices: Lead \$1,500/t-\$1,600/t, zinc \$1,400/t-\$1,500/t.

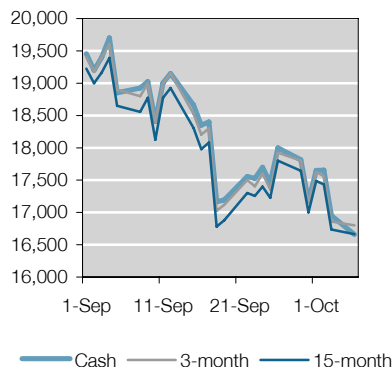
Market data (September unless stated)

Prices (\$/t)	Cash	Cash	3-month	3-month	LME stocks	LME Open Interest (contracts), latest			
	Lead	Zinc	Lead	Zinc		Lead	Zinc		
Average	1,872	1,740	1,884	1,764	Aug-08	80,575	160,325	Lead	92,225
High	2,001	1,816	2,019	1,838	Sep-08	64,100	155,025	Zinc	228,049
Low	1,784	1,683	1,781	1,708					

Source: London Metal Exchange

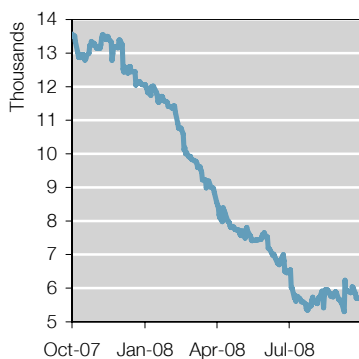
Tin

LME tin price (\$/tonne)



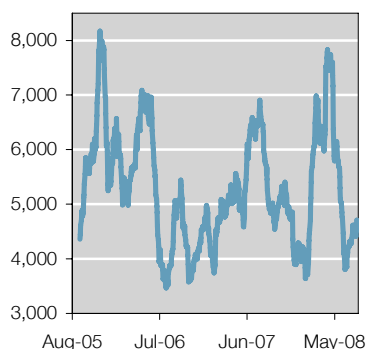
Source: Reuters Ecowin

LME tin stocks (tonnes)



Source: Reuters Ecowin

LME contracts, volume traded (Daily, 1-month moving average)



Source: Reuters Ecowin

News

- Oct 3rd: The Democratic Republic of Congo (DRC) is planning to ban exports of a variety of raw materials – including tin, tungsten and tantalum – from January 2009.

Analysis

- Price holds up relatively well amid general battering

By close of business on Friday 3rd October, tin was the only metal on the London Metal Exchange that remained in positive year-on-year territory; the 3-month contract was almost 4% higher than at the end of 2007, and – apart from aluminium – was the only one to rise on the previous day’s close. Despite commodity prices currently falling across the board, tin’s supply-side fundamentals remain extremely bullish.

From January 2009, the Democratic Republic of the Congo (DRC) – the world’s sixth largest tin producer – will impose strict regulations that only tin concentrate and not raw cassiterite (tin oxide, the basic material from which tin is produced) can be exported from the country’s tin-rich eastern provinces of North Kivu, South Kivu, and Maniema. In 2007, the DRC’s government introduced similar measures for the main copper and cobalt-producing region of Katanga. Unlike copper, however, these new tin export controls may significantly reduce ultimate global refined tin supply. The DRC’s tin mining industry simply does not have the capital infrastructure to perform the kind of value-added work on raw cassiterite that the government is seeking to impose. At the same time, Kivu Resources – a private international mining group mainly owned by Jonah Capital, Coronation Capital and Metmar – said it had abandoned plans to develop industrial-scale mining of the Bisiye deposit in North Kivu. Bisiye has been the main location of artisanal mining in the DRC in recent years, but continuing instability in the area has prevented planned investment. Kivu Resources had planned to spend \$28m developing Bisiye, one of The DRC’s biggest tin deposits, some 200km west of North Kivu’s capital, Goma. Soldiers from the Congolese national army’s semi-integrated 85th brigade have occupied the mine since December 2004. In the background are lingering doubts about Bolivia’s political instability, much lower Indonesian production, and the fact that China has become a net importer of refined tin, due to high domestic demand for its electronics industry and the imposition of a 10% export tax on refined tin. 2008 may see a global refined tin deficit of as much as 20,000t, perhaps widening in 2009. The only caveat to this is the degree to which a global recession may lead to a plunge in consumer electronics demand.

Outlook

Tin has not escaped the turmoil that has shaken all base metals’ markets, as fears of widespread economic recession are correctly interpreted as meaning a slump in industrial output. It might be that the scope for a smallish global refined tin deficit in 2009 is now less, but the overall market will nevertheless be tight in years to come, and LME stocks remain very low by recent standards. Short-term LME 3-month: >\$14,700/t.

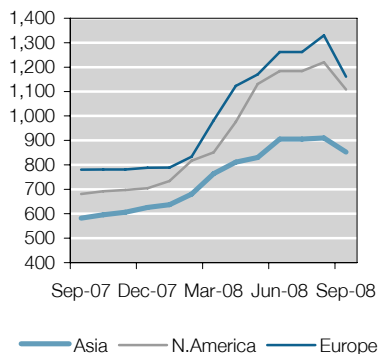
Market data (September unless stated)

Prices (\$/t)	Cash	3-month	15-month	LME stocks	Tonnes	LME Open Interest (contracts), latest
Average	18,426	18,361	18,154	Aug-08	5,760	Tin 14,172
High	19,700	19,605	19,390	Sep-08	5,700	
Low	17,165	17,025	16,780			

Source: London Metal Exchange except Option volatility: Virtual Metals

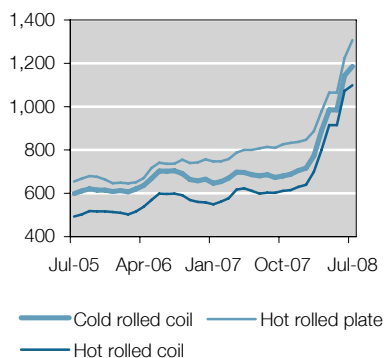
Steel

Composite steel prices (\$/tonne)



Source: MEPS, Reuters Ecowin

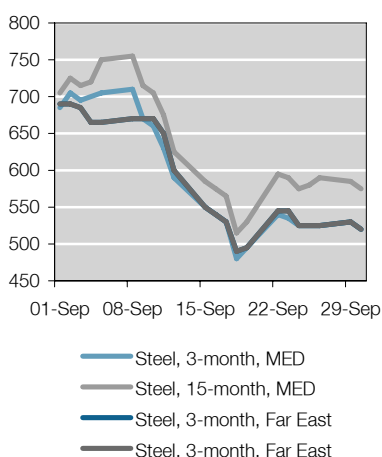
Steel products, world prices (\$/tonne)



Source: MEPS, Reuters Ecowin

Note: "World" is average of Asia, N.America, and Europe

LME steel prices (\$/tonne)



Source: Reuters Ecowin

News

- Oct 8th: Four of China's biggest steel groups agreed to a concerted production cut of up to 20% perhaps until the end of 2008. The companies are Shougang Group, Hebei Iron & Steel Group, Anyang Iron & Steel, and Shandong Iron & Steel. Together their annual production capacity accounts for some 100 Mt, about 20% of China's total production. The move is a response to steel prices that have plunged in recent weeks. China's total production in 2008 was previously expected to be as much as 550 Mt.
- Oct 6th: Ukraine announced that 17 of 36 of its blast furnaces had suspended operation due to steep price falls, slackening demand and threats of substantial over-production. Most of the remaining mills may soon be forced to suspend production unless demand picked up quickly and prices recovered.
- Oct 4th: India's steel production is likely to rise 6% (year-on-year) in the fiscal year ending March 2009, while demand will be twice that, according to the country's steel ministry.

Analysis

- Prices slump on recession worries

The joint action by four of China's biggest steel producers – if abided by – will have a supportive impact on steel prices but will be negative for the country's biggest iron ore supplies, Vale, BHP Billiton and Rio Tinto. If the four companies cut their production by 20% it might mean China's consumption of iron ore this year falls by 34 Mt. Other Chinese steel producers are, however, still maintaining their growth – Baosteel Group, the country's biggest, still plans to produce 30 Mt of crude steel this year, 5% higher year-on-year. In Europe, Corus, the region's second biggest steel producer, said it too will be "taking the steps necessary to adjust our production to tie in with the new demand realities." Consumers and traders everywhere are de-stocking and battenning down the hatches but it's likely that prices will slump even further. Those producers who have managed to lock-in large volumes in long-term contracts will be more cushioned from the looming decline in fixed asset investment but others – particularly those more exposed to the global car industry – are going to suffer. Fiat's CEO sounded a deeply gloomy note in early October, warning that the European market could shrink by as much as 5% in 2009, following what will in any case have been a disastrous 2008.

Outlook

Steel makers everywhere are having very tough times. The Chinese production cutback is probably too little, too late – many of the country's older, smaller and least efficient mills are now loss-making and if China's economy slows they will be forced out of business. Ironically, this will do no more than accelerate Beijing's aim for the country's steel industry, to bring about consolidation among the country's heavily fragmented steel sector and close the older and most energy-inefficient, heavily polluting mills. Short-term LME 3-month Med and Far East contracts: \$300/t-\$400/t.

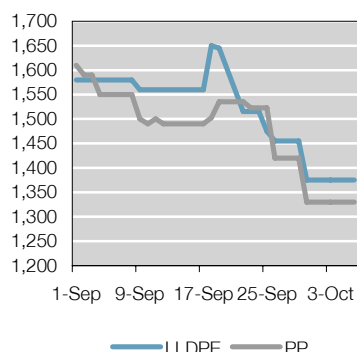
Market data (September unless stated)

Prices (\$/t)	Asia Composite	N.America Composite	Europe Composite	World Composite	LME Open Interest (contracts), latest	Interest	
						Med	Far East
Jul-08	905	1,184	1,262	1,117.00	Steel	911	114
Aug-08	910	1,220	1,330	1,154.00			
Sep-08	852	1,109	1,161	1,041.00			

Source: MEPS, Reuters Ecowin

Plastics

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



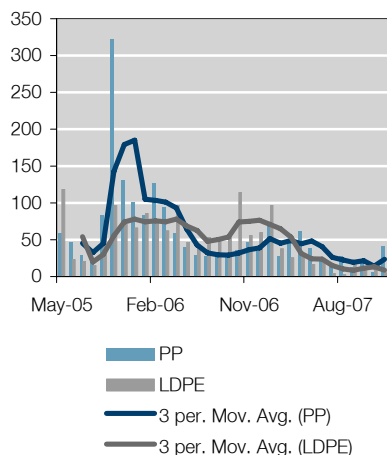
Source: Reuters Ecowin

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



Source: Reuters Ecowin

Plastics volume traded on LME, lots



Source: VM Group

News

- Oct 7th: Japan's ethylene output in September was 528,400t, 14% below the 614,100t produced in September 2007. Exports in August were 155,100t, 9.1% lower than the previous year.
- Oct 7th: A study in the US by the Freedonia Group forecasts that demand for plastic pipes will grow to 49.6m feet in 2012, from 37.8m feet in 2007.
- Sep 23rd: Petrobras, the Brazilian oil giant is to spend \$8.5bn on a petrochemical complex in Rio de Janeiro, COMPERJ, expected to come on stream by 2012. It will produce both energy and plastics products.

Analysis

- Crude oil price fall will ease prices

Plastics prices headed downwards in late September/early October in line with most other commodities and of course the energy complex. By 7th October the cash LME LLDPE and PP global contracts had closed at \$1,310/t and \$1,360/t, down from \$1,650/t and \$1,502.5/t as recently as 18th September.

Outlook

Falling energy prices are clearly reducing the costs of plastics processors, but the main cause of the price fall is the gloomy demand outlook, particularly in growth areas such as Asia, which are being hit by falling economic confidence in the key US and EU export markets – it is estimated that 80% of China's imported plastics goes into exported goods. Given the financial crisis is only now beginning to have a major impact on economic output the outlook for the next six to 12 months is poor, and the impact on prices will be exacerbated by the large increase in global supply forecast in the next few years, particularly from the Middle East. Short-term LME LL: \$1,300/t, PP \$1,200/t.

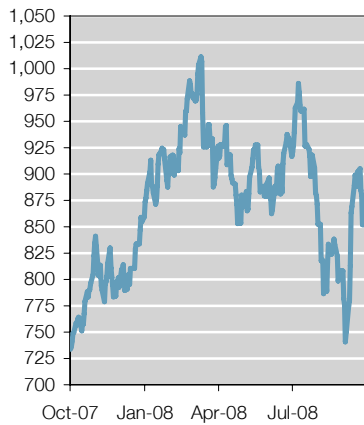
Market data (September unless stated)

Contract	Average prices		Volumes (September)		Open Interest (contracts), latest		
	Global LLDPE	Global PP	All LLDPE	All PP	All LL contracts	All PP contracts	
First position	1,553.57	1,517.62	Daily average	61	10	6	36

Source: Reuters Ecowin

Prices

Gold (\$/oz)



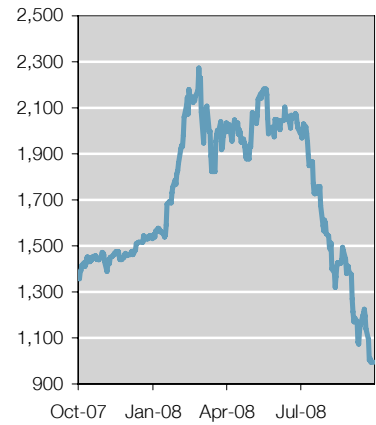
Source: London Bullion Market Association

Silver (cents/oz)



Source: London Bullion Market Association

Platinum (\$/oz)



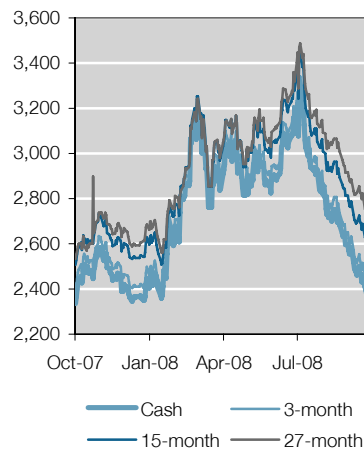
Source: London Platinum & Palladium Market

Palladium (\$/oz)



Source: London Platinum & Palladium Market

Aluminium (\$/tonne)



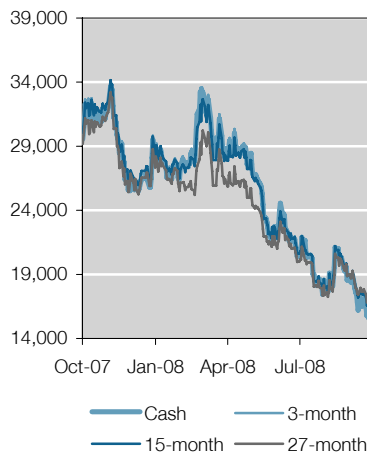
Source: London Metal Exchange

Copper (\$/tonne)



Source: London Metal Exchange

Nickel (\$/tonne)



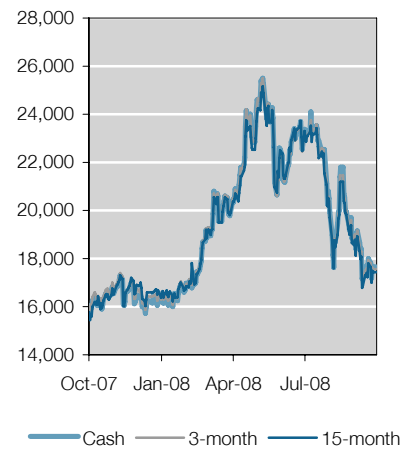
Source: London Metal Exchange

Lead & zinc (\$/tonne)



Source: London Metal Exchange

Tin (\$/tonne)



Source: London Metal Exchange

Notes

Notes

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