Hargreaves

Week in Mining

3 December 2011

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Season of Mists and Mellow Forecasts

If you find yourself walking through a park and spot a dishevelled figure slumped on a bench, shivering, sweating and drinking vodka out of a bottle neck, you have almost certainly fallen across a mining analyst who got his forecasts wrong this time last year. It doesn't happen in the soft markets ("I tell you mate nobody-nobody-predicted that frost in Brazil. As for El Bloody Nino dumping 27 feet of water on Alabama; no wonder the price of cotton went into orbit"). Those lads have it easy. What about Fukushima, Libya, Egypt, Syria? Warren Buffett changing his mind about gold? The Greeks, the goddamn Greeks, wanting to retire before they even start work, thus bringing the world's financial system to its knees? No matter, it is your job to predict; that is what you are paid for. Its Mines and Money week in London. The cream of the underworld are jetting in for what is becoming one of the biggest shows of its type in the world. There will be more commiseration than congratulations this year, because it has been an *anus miserablis* by and large. Except of course for gold, silver platinum and oil. So what did slide? Why, all the things we really need, like base metals, coal, iron ore. Oh and all the mining shares, even the ones whose commodities went up. Little wonder our friend on the park bench is shivering, despite being about 45 proof. If he still had a job he is probably wondering what to say about next year. So what shall we say? Or before that, what did we say last year? Well (he says a bit smugly) we hedged our bets but opined, no improvement on 2010.

- It will be a tough call and does not indicate a long term fall in energy prices. Crude oil obliged by closing 2010 at $93 and entering December 2011 at $109/bbl.
- We will do well to bring ourselves back above 2007 in most cases.

Metal Prices One Year On	30 Dec 2010	2 Dec 2011	Change
Aluminium ($/t)	$2,390	$2,103	-12.01%
Copper ($/t)	$6,611	$7,800	17.99%
Lead ($/t)	$2,605	$2,061	-20.88%
Nickel ($/t)	$25,528	$17,170	-32.74%
Tin ($/t)	$16,555	$20,800	25.64%
Zinc ($/t)	$2,340	$2,032	-13.16%
Iron Ore (62%)	$102.64	$138.8	35.23%

So we did not do well, except for copper and iron ore. Yet the precious metals have shone, even over one year.

Precious Metals One Year On	30.12.2010	03.12.2011	Change
Gold ($/oz)	$1,408	$1,743	23.79%
Silver ($/oz)	$30.44	$32.97	8.31%
Platinum ($/oz)	$1,745	$1,568	-10.14%

And 2012. Well, in an effort to avoid the park bench syndrome, or at least afford decent vodka, we are tossing in the factor we tended to overlook last year: Fear. The military, political and herd features which combined to be the driving force in 2011, will probably lead the parade again.

So fear of what?

- **Middle East Destabilisation.** Egypt is swinging hard to Islam, Libya is not yet governable. Syria is a melting pot. Iran could blow. This, not demand, will keep the price of oil in three figures.
- **Africa.** Zimbabwe might blow. Uncle Bob is living on borrowed time. Civil war might follow and South Africa could be on the spot. An otherwise soggy platinum price might motor. Gold too.
- **The long march of China.** Although they have not learnt their table manners, our Oriental friends have gate crashed the African party big time. A backlash is brewing. That hits copper, cobalt and the steel industry minerals.
- **The People Problem.** The availability of instant communications has spawned the unstoppable. The major riots on mines in Indonesia, Peru and Africa will intensify, not lessen. We have not yet heard it for the former Soviet Union states, the '-stans' which are nominally independent, but we shall.
- **The Politics.** The presidencies of the USA and South Africa are on the block. Politicians become distracted when running for a second term. Others, some newly entrenched, some well bedded-in, are out to make radical changes.
- **And So Our Forecast?** Forget the mathematics and follow the news. This will not be a year for share prices to double. The status quo would be a result.

At The Mines and Money Awards Dinner, those who got it right in 2011 will step up for their prizes. Rightly so. But study their faces; if they don't observe the fear factor they may be on the park bench this time next year.

The Markets

Major Caps

The conglomerates received a fillip from the US decision to throw some cheap(ish) money at the market, which gave an opportunity for some long term soul searching. It is against a background of nickel and aluminium being in serious oversupply but a rosy picture for both coal and its not unrelated friend; iron ore (see Bulk).

A statement by Rio's CEO Tom Albanese is rightly concerned about cost increases colliding with softening commodity prices but remains gung-ho for the longer term. He sees China as having a long way to run. On the beleaguered aluminium, Rio has trimmed back its higher cost units (but failed to sell them) and pitches for earnings margins of 40% for its Alcan business by 2015. Given the high price Rio paid for Alcan it is a bit like the advice to a president looking for a second term in office: "Admit your mistakes; promise to do better".

But the message is clear: onwards and upwards. Rio's CAPEX will be c. $12bn in 2011 and $14bn in 2012. Rio continues to return excess capital to shareholders. It has completed over $5.6bn of its $7bn share buyback programme and has reduced net debt by $0.7bn to $7.9bn (October 31st).

BHPB is exiting diamonds, even as Anglo is getting deeper in. The top tier miner entered the gemstones business in northern Canada, with its extreme climate challenges before flirting with Angola and its extremes of a different sort. It was never truly happy in the sector, which makes only a minor contribution to its wealth. So what is its EKati mine worth and who might buy it? The mooted $0.5-1.0bn price tag would not be significant to the group's annual Capex budget of + $10bn.

Vedanta (See below) has several problems of its own making at present. Amongst them the Indian-inclined majority share holders-directors have taken time to understand the rules of conduct on the London Stock Exchange, particularly the big board. From the heady days when the London Sunday Times called Vedanta a buy at 288p in January 2010, it now rests at 1054p, just 13% above its low of 928p recently. It battled for and won control of oil producer Cairn India but suffered as Deutsche Bank queried whether it could handle the $9.6bn price and resultant debt. This is a complex deal with Vedanta relying on a dividend flow from Cairn and its subsidiaries to support debt repayments. The bank says the tipping point is oil at $73/bbl. That looks OK now but need we remind: In 2009 it averaged $62/bbl. But Vedanta likes Africa, particularly Zambia. It plans to resume output at the open pit Mimbula Mine, part of Vedanta's Konkola Copper Mines (KCM). This fits its strategy of stretching the life of existing resources. Since buying KCM, Vedanta has invested $2bn, on the Konkola Deep project and the new 300,000 tpy smelter at Nchana.

Why are the majors going for potash? See Bulk Minerals.

Vale SA of Brazil, arguably the world's largest miner, has approved a $21.4bn CAPEX budget for 2012, of which $12.9bn will go on projects, 46.7% for iron ore. They care not that South Africa's Kumba says we are in a soft market with more supply than demand. For the coming year, Vale targets output of iron ore 312 Mt, coal 16.6Mt, Nickel 300,000Mt, Copper 340,000Mt, potash 650,000Mt and phosphate 8Mt. Brazil gets 63.7% of total spend and Canada 11.7%. Canada's nickel came at a price.

Rio Tinto says it is on the lookout for suitable acquisitions. It would surprise us otherwise. It will do $12bn CAPEX this year and $14bn next, as noted and expects this to be the norm for several years.

Share Price Movements, Majors

Stocks	26 Nov 2011	3 Dec 2011	% Change	12 mo Hi-Lo	% Above Low
FTSE 100	5165.0	5552.29	7.50%	6,002-4,790	15.91%
Anglo American	2215.0	2471.0	11.56%	3,335-2,210	11.81%
Antofagasta	1044.0	1207.3	15.64%	1,556-756	59.70%
BHPB	1759.5	2000.5	13.70%	2,585.5-1,678	19.22%
ENRC	600.5	674.5	12.32%	1,276-554	21.75%
Gem Diamonds	203.9	194.5	-4.61%	300-182	6.87%
Glencore International	373.8	410.95	9.94%	550-348	18.09%
Hargreaves Services	1101.0	1105.66	0.42%	1,072-550	101.03%
Kazakhmys	805.0	856.0	6.34%	1,634-793	7.94%
Rio Tinto	3032.0	3346.5	10.37%	4,592–2,751	21.65%
UK Coal	30.5	31.5	3.28%	83-30.5	3.28%
Vedanta	928.0	1086.0	17.03%	2,958–928	17.03%
Xstrata	908.7	1036.0	14.01%	1,514-820	26.22%

Source: The London Times and the FT

Share Price Movements, Small and Medium Caps

Conroy Gold (See below) stands to see Ireland's first substantial mine into production for many years. It follows years of patient exploration and the not insignificant problems of politics, security and environmental concerns. Its two gold projects, Clontibret and Clay Lake, straddle the Ulster-Republic border. In house studies indicate total gold potential of 15-20 Moz although much work needs to be done to harden that up. There is a JORC-compliant resource of 1 Moz on only 20% of the Clontibret project. A scarcity and collectors value could equally apply to Irish gold as it does to Welsh. The year end results to May 31st 2011 were a long time in the melting pot. They show the expected loss, E427,970, cash at bank of E749,456 and a directors' asset valuation of E11,647,817. As ever, not-shy Chairman Richard Conroy is ready to dip his hand in his own packet for his ventures. The company needs continued good drilling and a foot on the pedal. That said, we do not consider it over-priced.

True North Gems (TGX.V C$0.10; Hi-Lo C$0.18-0.09) lacks neither enthusiasm nor potential. The latter is a potentially very large deposit of two of the world's most sought-after gems: ruby and pink sapphire. The climate in its host country is hostage, but it has assembled a formidable team with both world and local experience. Once a mining licence is granted it plans a full-on mine-to-market approach to its production, which it hopes might start at the end of next year. Greenland is a massive, challenging land of few people but with ambitions to prosper via mining. Its searches for oil and gas have not proved a bonanza which should further encourage its appetite for True North.

Baobab Resources (BAO.L 14.13p; Hi-Lo 57.75-10.08p) which we track regularly presents an unusual target to analyse. It is in a favoured part of a currently favoured country, Mozambique. It is also at an advanced exploration stage with a complex mineral, a titanium-vanadium-magnetite ore with excellent export potential. The availability of relatively cheap, local hydropower means it could process on site. The current size of the company, market cap £28M, makes it look cheap, although it is difficult to derive a basis of comparison. The share price action has been acute. From a peak of 54p in April, it now hovers around14p.

Share Price Movements, Small and Medium Caps

	Company	26 Nov 2011	3 Dec 2011	% Change	1 year Hi-Lo	% above low
AFCR	African Consolidated Resources	2.5	2.5	0.00%	11.75-2.5	0.00%
AXM	Alexander Mining Plc	5.13	5.13	0.00%	17.0-5.0	2.60%
AGQ	Arian Silver Corporation	19.5	19.75	1.28%	54.25-6.5	203.85%
AAU	Ariana Resources Plc	4.88	4.63	-5.12%	5.25-2.25	105.78%
BEM	Beowulf Mining Plc	17.5	16.25	-7.14%	74.25-3.5	364.29%
CLF	Cluff Gold	73.0	80.5	10.27%	125.75-64.5	24.81%
CGNR	Conroy Gold and Natural Resources	3.25	2.88	-11.38%	12.9-2.75	4.73%
DCP	DiamondCorp	5.45	5.25	-3.67%	16.9-5.45	-3.67%

DME	Discovery Metals Ltd	73.0	86.0	17.81%	96.0-37.25	130.87%
EUA	Eurasia Mining	0.70	0.7	0.00%	1.75-0.70	0.00%
FDI	Firestone Diamonds	9.88	10.88	10.12%	36.5-9.88	10.12%
FML	Frontier Mining Limited	3.05	3.15	3.28%	8.5-3.05	3.28%
GEM	Gemfields	24.88	25.75	3.50%	24.75-3.75	586.67%
GDP	Goldplat	11.75	11.63	-1.02%	13.25-8.0	45.38%
HMB	Hambledon Mining	3.63	4.0	10.19%	8.25-3.12	28.21%
HER	Herencia[3]	2.03	2.1	3.45%	4.0-0.5	320.00%
KAH	Kalahari	224.25	232.0	3.46%	301-142	63.38%
KDR	Karelian Diamond Resources	1.59	1.75	10.06%	5.25-1.0	75.00%
KEFI	Kefi Minerals	2.71	3.0	10.70%	9.5-0.5	500.00%
KYS	Kryso Resources	28.63	28.38	-0.87%	31.88-12.5	127.04%
MWA	Mwana Africa	3.90	4.08	4.62%	14-3.90	4.62%
NYO	Nyota Minerals	6.43	6.83	6.22%	30-6.43	6.22%
ORE	Orogen Gold Plc	0.76	0.53	-30.26%	1.62-0.2	165.00%
PDL	Petra Diamonds	99.25	126.0	26.95%	189-60	110.00%
RLD	Richland Resources	9.13	8.88	-2.74%	16.0-6.5	36.62%
SXX	Sirius Minerals Plc	29.5	28.5	-3.39%	22.75-1.25	2180.00%
SNRP	Strategic Natural Resources	12.25	13.63	11.27%	27.75-8.25	65.21%
TMC	Toledo Mining	22.75	22.25	-2.20%	34.25-20.25	9.88%
VGM	Vatukoula Gold	65.5	71.5	9.16%	227-65.5	9.16%
ZOX	Zincox	56.13	54.0	-3.79%	77-32.25	67.44%

Source: The London Times and the FT

Metals and Minerals

Exchange Traded Metals

As the early year-end forecasts trickle in, copper is looking for the form prize whilst aluminium remains on the naughty step. Nickel looks like being held back in the same class for another year, tin is building up some surprises whilst lead and zinc plod on. Surely not 'must try harder', again?

Aluminium remains an enigma. The most versatile of regular metals is rust-resistant, malleable, rolls into thin sheets, can be cast easily and is cheap. Therein lies the problem: it cannot afford to be cheap. Its cost of production is all about the final process, converting the intermediate alumina into metal, which uses oodles of electricity. So you can only do it economically where power is cheap. That is why the raw material, bauxite, is shipped across the world from its resting places in Australia, Guinea, Jamaica to the hydropower havens of the North American west and east coasts. Aluminium has got itself into an oversupply fix which has resulted in:

Aluminium Supply and Price

	Jan 2007	Dec 2009	Dec 2010	Nov 2011
LME Metal Price ($/t)	$2,720	$2,306	$2,447	$2,103
LME Warehouse Stocks (Mt)	0.695	4.64	4.29	4.57
Ratio: stocks ÷ price	255	2102	1753	2173

Source:

It was at the balanced end, 2007 that Rio Tinto decided buying the world's Nº 2 producer, Alcan, was a good idea. Power was quite cheap, too; oil at $72/bbl. New capacity was coming onstream and the bauxite miners, as ever, were clamouring for refining at source. Came the downturn. Aluminium is a metal used at the posher end of the market, a bit like stainless steel, so the good times never materialised. Now the industry is rationalising. Rio has put 13 of its non-performing units on the blocks, Alcoa is doing likewise and the push is to expand in the hydropower areas. To this end, Japan's major trader.

Metal Stocks in LME Warehouses

Metal	26 Nov 2011	2 Dec 2011	% Change
Aluminium	4,565,300	4,557,650	-0.17%
Copper	395,975	386,700	-2.34%
Lead	369,975	369,250	-0.20%
Nickel	88,476	91,074	2.94%
Tin	13,230	12,150	-8.16%
Zinc	742,900	741,350	-0.21%

Source: Mining Journal

Commodity Price Movements

Commodity		26 Nov 2011	2 Dec 2011	% Change
Aluminium	$/tonne	1,992	2,103	5.57%
Copper	$/tonne	7,175	7,800	8.71%
Lead	$/tonne	1,956	2,061	5.37%
Nickel	$/tonne	17,145	17,170	0.15%
Tin	$/tonne	20,700	20,800	0.48%
Zinc	$/tonne	1,903	2,032	6.78%
Gold	$/ounce	1,691	1,743	3.08%
Silver	$/ounce	31.76	32.97	3.81%
Platinum	$/ounce	1,541	1,568	1.75%
Brent Crude Oil	$/bbl	107.6	109.3	1.58%
Platinum/Gold	Ratio	0.91	0.90	-1.10%

Source: The Times of London

Bulk Minerals

Iron Ore. You do not tiptoe gently into a thousand million tonne market. It has compartmentalised itself over the years thus:

World Trade in Iron Ore (million tonnes per year, Mtpy) (% world)

Country	Exports	Imports	Company	Production
Australia	424 (41%)	--	Vale S.A.	293 (24%)
Brazil	285 (28%)	134 (13%)	Rio Tinto	220 (18%)
India	49 (10%)	50 (5%)	BHPB	121 (10%)
China		619 (59%)		

Source: Deutsche Bank

The mineral is a key part of conglomerate production baskets, each still seeking to expand. Australia's recent flirtation with taxes has disturbed matters but Rio Tinto still ploughs ahead there. It plans a further 20 Mtpy addition in the Pilbarra to lift its current 220 Mtpy to 353 by 2015. Rio estimates that world demand will increase by 100 Mtpy for the next 8 years, which compounds at about 6% p.a. China and India will remain the consumer growth engines.

Potash. Onward and Upwards. Some say that by the time a commodity is pushed in the tip sheets, it is time to get out. But if you do that just as some of the biggest names are getting in, you might miss out on the reality. So a well followed news sheet. Aheadoftheherd.com, which invests mostly in the junior sector, has turned fertilizer friendly. It notes: Vale SA, BHPB, Rio Tinto plus K & SG of Germany. It makes these bullet points:

- Population. 200,000 born every day is a lot more mouths to feed.
- More people seeking a better quality of life are climbing the protein ladder.
- As increasing loss of arable land plus top soil degradation.
- Desertification plus climate change.
- The green revolution. Chemicals are a bad thing; natural fertilizers are a good thing.
- Many countries are still to catch on to what soil enhancement can do.
- Developing countries are getting into farming.

Iron Ore CFR Tianjin Port 2011. 62% Fe fines US$/dmt

11 Nov 2011	18 Nov 2011	25 Nov 2011	2 Dec 2011
$137.7	$147.4	$140.4	$138.8

Source: The Steel Index

Precious Metals

Gold Remonetisation. Nobody is as yet buying into our back-to-the-gold-standard plan and its $40,000 per ounce price ticket, but they are inching closer. The Gold Forecaster believes gold is heading for a monetary role as collateral. They speak only of the central banks of countries doing this and as a last resort when borrowing. In principle there is nothing to stop companies doing likewise. Gold swaps are a form of barter. That trading mechanism, which has its roots in prehistory, is thriving today.

To see if the numbers make sense:

- World gold production is treading towards 3000 t.p.y, or 96,000,000 oz.
- At $1700/oz = $163 billion.
- World GDP is treading towards $80,000 billion. Now 80,000 ÷ 163 = $490.
- This world trade could be satisfied by a gold price of under $500/oz.

The trick would be to buy your gold in dollars. Kwatcha, Kwanga, Roubles and Reales will not do, because the countries that print them do not have enough of the metal. The monetary reform movement, nonetheless, is growing little legs.

Venezuela's Gold dribbles back. Venezuela's decision some months ago to repatriate its 160 tonnes of gold held in suspect vaults like the Bank of England and Switzerland has seen the first shipments arrive in Caracas. So the world's 8th largest oil producer (3.2% of world total) with 16% of its reserves in the ground can set out its financial stall. Its total gold holdings stand at 366 tonnes (world Nº 16) and cover 54% of its total foreign exchange reserves. GDP of £347 bn puts it in Nº 35 slot. Sot it is well placed for a seat at the table of the new world order. Just a couple of problems: President Chavez does not encourage foreign investment, has a paranoid hatred of the USA and thinks his border with Colombia should be moved further into his neighbour's territory.

Why is gold not higher? It is always warming to read something with which you agree. Market commentators say gold is not going higher for two particular reasons: the US dollar is strong and the European Central Bank in particular has no means with which to buy bullion. Unless they print some more money of course, which will drive up the dollar…which will put downward pressure on the metal…which will….

Silver and India. The country matters to the metal since almost 11% of it ends up there. But its imports are falling. Last year saw 3030 tonnes flow in but this year will be less despite a lower price. A falling rupee/dollar rate is partly to blame.

Silver and the Rupee/Dollar Exchange

Date	Silver $/oz	Rupee/$	Silver Rp/oz
30.12.2011	30.44	45.05	1371
30.08.2011	40.63	46.16	1875
30.10.2011	34.96	48.76	1705

Yet gold imports remain strong, so is sentiment changing?

Minor Metals

Minor Metals

Minerals	Unit	Dec 2008	Dec 2009	Dec 2010	June 2011	Oct 2011	18 Nov 2011	25 Nov 2011	3 Dec 2011
Antimony	$/t	$4,000	$5,800	$12,000	$17,500	$13,500	$12,800	$12,800	$12,500
Bismuth	$/lb	$7.75	$6.80	$9.00	$11.75	$12.20	$11.60	$11.60	$11.00
Cadmium	$/lb	$0.60	$1.60	$1.65	$1.35	$1.15	$1.15	$1.15	$1.15
Mercury	$/flask	$600	$500	$1,300	$1,600	$1,900	$2,000	$2,000	$2,000
Rutile	$/t	$525	$560	$600	$718	$790	$790	$790	$790
Ilmenite	$/t	$120	$75	$75	$139	$256	$256	$256	$256
Zircon	$/t	$790	$875	$960	$1,303	$2,140	$2,140	$2,140	$2,140
Global Coal Index	-	74.18	68.85	109.90	117.0	109.44	106.94	106.32	101.72

Source: Mining Journal

Exchange Rates

It is an old adage that when America sneezes we all catch a cold and the US economy (GDP $14,526,550 bn per the IMF) still overshadows that of China ($5,878,257 bn per the IMF). So Deloitte warning that Uncle Sam land is teetering on the brink of another recession is serious news. Chinese growth is still strong, at a predictable 8.7% for 2012 (2011 9.3%) as is that for developing East Asia. Yet the froth has gone off commodity prices.

Exchange Rate Movements

Currency	26 Nov 2011	3 Dec 2011	% Change
£:US$	1.55	1.57	1.29%
£:€	1.17	1.16	-0.85%
£:SA Rand	13.16	12.69	-3.57%
US$:Aus$	1.03	0.98	-4.85%
£:Aus$	1.59	1.53	-3.77%
US$:Br Reale	1.88	1.79	-4.79%

US$:C$	1.05	1.02	-2.86%
US$:€	0.75	0.74	-1.33%
US$:SA Rand	8.50	8.09	-4.82%
US$:Rupee	52.24	51.46	-1.49%
US$:HK$	7.80	7.77	-0.38%
US$:UAE Dirhams	3.67	3.67	0.00%
US$:Israeli Shekel	3.79	3.74	-1.32%
US$:Japanese Yen	77.68	77.71	0.04%
US$:Thai Bhatt	31.37	30.90	-1.50%
US$:Yuan	6.38	6.36	1.29%

Source: Financial Times

Energy

Coal, despite what is decided at the World Climate Change Conference in South Africa, will remain the dominant energy – producing fuel indefinitely, with China, India, EU and USA, the major consumers. But the fight to provide exports is afoot. Indonesia (220 Mtpy), Australia (140 Mtpy) and RSA (80 Mtpy) currently dominate. Colombia has doubled to over 70 Mtpy in 10 years, but Mozambique is about to show its hand. A conference last week agreed the country will produce100-120 Mtpy by 2020, the majority of it high grade and bound for the export markets. More output will come from the Tete region in the North and infrastructure is a major priority. Both roads and/or major rail links are needed to feed the Indian Ocean ports of Beira, Maputo and the still-to-be-developed Nakala. Active are Vale (Mdotize Mine to be doubled to 22 Mtpy), Rio Tinto (Riversdale Mining c. 10 Mtpy), Beacon Hill (2.5 Mtpy) and others. Any softening in the market will impact RSA, where qualities are generally lower.

An Iranian Oil Embargo. American citizens can sleep easy, even if it comes with a hint of jealousy. They are only public enemy Nº 2 in the eyes of Iran. Not for the first time in their long history, the Brits are Nº 1. The hatred goes back a long way; to when we effectively ran the place via the Anglo-Persian Oil Company as well as controlling the Suez Canal. Now they have wrecked our embassy in Tehran and we have sent their London diplomats packing. Word is of an EU-inspired embargo against the mullahs. What would it do and who would it hit? Well, to be effective against Iran, it would need the USA to comply and OPEC to break ranks. Neither will be easy. It would also bring rejoicing to the streets of Beijing. The Chinese could buy every surplus barrel (which they would) and swap it for all the white goods now surplus to requirements and piling up on the dockside.

To perspectivise, Iran has:

> **Reserves:** 10% of the world total, bettered only by Venezuela (15%) and Saudi Arabia (19%). For cold comfort, Iraq has 8% and Kuwait 7%.
>
> **Production:** only 5.2%, Saudi Arabia has 12%, Russia 13%, but whole OPEC bloc is 41.4%.
>
> **Consumption:** Here is the swinger: USA (21%), EU (16%), China (11%).
>
> **Exports:** Iran exports 4.5% of the world's needs, to the USA, China, Japan, India, Germany, Korea and Japan, in descending order.

So the outcome? An almighty trade war if an embargo is attempted.

Many OPEC countries are more reliant on their oil revenues than they were in previous stand-offs. During the Suez crisis of 1956-7, crude was $2/bbl. In the Iranian revolution 1977-9, it spiked to $32/bbl. The Iran invasion of Kuwait 1989 only brought it back up from $15 to $20 transiently. It was the Asian financial crisis of the late 1990's, followed by the invasion of Iraq which spiralled it towards its passing $150 and its present $100 plus. So the suppliers are sitting pretty. They could weather the storm. In all conscience, the EU and USA probably could not. Let's hope they have taken this onboard. What it may do, if the USA can get its Presidential problems out of the way, is concentrate the West on the overriding importance of energy self sufficiency. Shale oil and tar sands here we come.

World Oil Trade, Reserves, Production, Consumption, Imports, Exports (%)

Country	Reserves	Production	Consumption	Imports	Exports
World	100	100	100	62	62
OPEC	77	42	11	-	31
USA	2	9	21	12	-
EU	<1	2	16	14	-
Iran[1]	(10)	(5)	(2)	-	(3)
Saudi Arabia[1]	(19)	12	3	-	(9)
Venezuela[1]	(15)	3	(1)	-	(2)
Russia	6	17	4	-	13

China	1	5	11	6	-
Other	13	25	35	30	18

Source: BP, Deutsche Bank, DH

[1] Included OPEC total

Countries

The Climate Change Conference. The world save the planet climate conference was held in Durban, South Africa this year. As we write it is on-going but a much more muted affair than its predecessors. They are still paying lip service to humanity being responsible for the oceans heating up but the panic mode is giving way to grim reality. It is not a belief the majority of the world can afford to buy into, even if it wished. The host Mining Minister, Dipuro Peters reminded the conference that the cost of carbon capture and storage (CCS) would be prohibitively high for developing countries. That means at least 75% of us. We assume the choice of Durban, at sea level in the height of an African summer, was coincidental. Maybe Nuuk, Greenland or Norilsk next time.

South Africa's Sasol Group (JSE), world leaders in turning coal into oil and chemicals, has approved a R5bn (£400M) project of replace its ageing Middlbult Colliery with a new one, the Shodoni in Mpumalanga Province. It will be a 10 Mypy affair. Last year Sasol reported a profit of R1.1bn (£850M) up 30% on previous and grateful for the linked-in oil price. The technology has been exported worldwide.

The Husab Uranium Project in Namibia, slated to become one of the world's top four U_30_8 mines via developer **Extract Resources** has the assurance of the Government that it will be granted a mining licence. That is at best magnanimous. In what can be most charitably described as a soggy nuclear power market, both Extract and its 42.74% shareholder Kalahari Minerals have been courted by only one suitor, China's CGNPC Group, which would presumably be an offtake Partner, too. The Chinese group's first bid for Kalahari was at 290p but withdrawn, countering to 243p. Kalahari closed at 239p. The Husab could be on Stream in Q4 2014 at 15Mlbs/year over 20 years.

Spot Uranium Price, $/lb U_30_8

31 Dec 09	31 Dec 2010	12 Nov 2011	19 Nov 2011	26 Nov 2011	3 Dec 2011
$44.0	$66.0	$52.75	$55.25	$52.25	$51.75

Source: Mining Journal

Gemstones

When we were raunchy young man we were advised by older and wiser ones to target convent girls. The hypothesis was that once they broke out they realised what they had been missing all those years. A bit like finance officials in developing countries. Of late the Namibians had to stage an organised retreat from an ill-timed announcement of intent to increase taxation across the board. Now it is Malawi's turn. The little, land locked African country has much to offer via mining. A painful goof of late was the President throwing out the British High Commissioner for daring to criticise him. This is followed by the Finance Minister re-running the fiscal tape over the country's only mining venture of note, **Paladin Energy's** (PDN.AX A$1.67; Hi-lo A$5.61-1.11) sizeable uranium mine there, the Karonga-Kayelekera. The mine is just finding its feet, bringing jobs, exporting dollars and infrastructure to a country with a GDP per capita of just $300.

Government has a 15% free carried equity. But the Reserve Bank Governor, Mr. Ligoya led with the lip. He accused Paladin of being less than transparent and like matters. It has not sat well and he has been forced to retract. In common with most uranium miners, Paladin needs all the help it can get in a market that is soggy on both demand and sentiment.

The **Chinese** are starting to complain that their overt generosity is not getting the gratitude it deserves in places foreign.

To smelt or not to smelt. That is the question. It would be trite to dismiss politicians as simple souls with their voters' best interests at heart. Then how would we explain their blinding lack of economic nous combined with an acute ability to threaten and blackmail? Beneficiation at source is becoming a hobby horse with a saddle. Why export your minerals in raw form and let someone else cream the profits from upgrading? There is sometimes a good case, but often not. South Africa has long cherished beneficiation as a job provider and profit-adding ingredient. Well sometimes yes, often no. The Republic takes in other people's bauxite then has to subsidise the electricity to smelt it. But it would like to take more of its abundant manganese and chromite in refined form. The theory is fine, except the country with abundant coal for export cannot produce enough electricity to satisfy its present needs, let alone the huge surge of power needed for refining. RSA also has a big labour surplus. Yet smelting will not solve that. Despite, the ANC Government is considering a range of 'penalties and incentives' to force a way through. Emotive words on an emotive issue. We recommend they take a world view before embarking on that path. There is a reason why oil is shipped around the world as crude. Likewise coking coal, iron ore and esoteric minerals. It boils down to skills and economics. South Africa has an acute economic problem, but more mines, not more smelters would solve that faster. Don't take our word for it, but that of the CEO of Eskom, the State electricity generator. He says the country's power supply will remain critical for the next two years.

Zimwatch

The buzz is Marange diamonds and the KP agreeing to their exports. The door remains closed by the USA and EU, insofar as it is possible and the move is vehemently opposed by the influential Rapaport Group. The Zim Treasury says it expects export revenues to boost the country's purse by $600 millions in 2012. How this will benefit the country depends overwhelmingly on which proportion is processed transparently in Harare and how much does a high wire act direct to Singapore. With the diamond market currently in surplus, the flow of gems from Zim will be an added depressant.

Caledonia Mining (CALq.L 7p; Hi-Lo 9.90-4.51p) describes Zim indigenisation as a "political football" in the hands of the Zanu-PF Party. The CEO does not see his company agreeing on the demanded 51% local ownership before the next election, which could be as far away as 2013, according to the MDC. Caledonia targets 40,000 oz gold production next up, 10,000 oz up on 2011. The eventual target is 75,000 oz/yr.

The Watchtower

The Seabed and China. Gathering minerals from the seabed is in its infancy if you discount dredging for diamonds off the coasts of South Africa and Namibia. These are at relatively shallow depth. Vast deposits of a whole variety of metallic lie in deeps of up to 15,000 feet and there are those who think they can economically mine them. After the comi-tragic attempts of the late 1970's, the Law of the Sea was promulgated and The International Seabed Authority issues licences to explore and mine. The Pacific and Indian Oceans are most favoured and the Japanese and Chinese the most active. We could be 20 years away from hope becoming reality, but the resources will be sought because they are there. Now if you want to get in early **Nautilus Minerals** (NUSM.L 144p; Hi-Lo 237-121.5p) intends to start production off the coast of Papua New Guinea with its Solwara 1 project by end 2013. It means business and is spending at the rate of $11.4M per quarter, yet have $115M in the kitty. The target is copper and shareholders include Russia's Metalloinvest and Anglo American.

Forward Diary

1 December 2011:	XCAP Securities Final Result
4 & 5 December 2011:	Mining Journal Canada and Australia Days, respectively
6-7 December 2011:	Mines & Money, London
23 December 2011:	Bank Holiday Japan
26 December 2011:	Bank Holiday US, Germany, Italy and UK
27 December 2011:	Bank Holiday UK

David Hargreaves
3 December 2011

Would you or any of your colleagues like to receive a trial copy of "The Week in Mining"? It is beamed into your home each Sunday evening updating you on the mining markets with a mixture of mischief, humour and interpretation that is its established hallmark.

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