Hargreaves

Week in Mining

19 November 2011

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Doctor, doctor, if only I had more energy!

Ah, yes, that's what they all say. But, you see, one's energy levels peak about five minutes after one is born. Most of the stuff is dissipated in screaming, feeding and staying awake all night. A bit like Libya, Syria and Egypt recently; they have lots of energy. As you get older, you try to conserve it. Been out in the sun recently, have we? Had the wind in our faces or tried swimming against the tide? They call it renewables in the trade. Bit of a fad, actually. The Brits embraced it wholeheartedly. Gave it away on free prescriptions like solar panels and wind farms. Then they found out it didn't pay, so they are cutting back. Now North Sea oil is running low, they are beginning to regret bulldozing all the coal mines. Have you seen the price of that stuff recently? But it's a strange thing that those with the most energy are also the richest.

Richest by GDP: Norway (2), Qatar (3), UAE (5), Australia (7), Canada (11).

So, do other commodities not count, then doctor?

Not really. You see, energy in all its fossil forms makes up over 90% of the commodity basket. That's why Little Red Riding Hood got mugged on her way to granny's house, but that's a different story….

Now those with the other commodities are making a bit of a nuisance of themselves lately. They keep wanting their goodies not just mined, but refined, at source. That is where the energy is used up, refining. Ever seen a furnace in action? The same applies to high technology metals like rare earths, tantalum, gallium, germanium. Anybody can mine that stuff but they are the devil's own to beneficiate. So a lot of countries, sadly those at the bottom of the food chain mostly, are fighting a lost cause. To them that have shall be given, as my old friend says. But to your lack of energy, I am going to put you on a course of tablets. Take this big coal, oil and gas pill three times a day. The uranium pill only once a week – they have nasty side effects. But try to stay away from those renewables – they're alternative medicine, mostly bogus and not covered by insurance.

The Leader endorses the views of the Duke Of Edinburgh who last week told the MD of a leading Windfarm Company that Windfarms were "completely reliant on subsidies, a complete disgrace and would never work." Wonder what he says in private?

The Markets

Major Caps

Are the boys playing chess, patience or silly buggers? They sit uniformly on large cash piles, pondering their own navels and each other's next move. No reason for share price collapses and even less for a major surge forward. Not really assessing each other right now, but certainly sizing up smaller prey. They are sticking with their long term minerals of choice – sort of – but agonising over destinations. It is difficult to pull out of a place once you have sunk your shafts.

Anglo American (see Exchange Traded Metals) is amusing us with its adventure in Chile, even as it takes a direct grip of diamonds. Rio Tinto puzzles us over its uranium ambitions. Its U_3O_8 output is 3rd in the world, but it refuses to make a definitive move on Kalahari's Hussab yet toys with Canada's much smaller Hathor. Brother **BHPB** is a man (sorry, person) on a mission with shale gas and potash but it is all a bit Sunday afternoonish right now.

None of this prevented a serious fall in the market last week with annual lows looming for **Anglo, UK Coal, Vendanta.** This could not be blamed on commodity price movements. Although these were down for choice they were but a fraction of the retreat in shares.

BHPB has reaffirmed its commitment to shale gas (see Energy) in the USA. **Rio Tinto** (see below), continues to pursue its bid for tiddler Hathor and has more fire power right now than the World No.1 uranium miner Cameco, the under bidder. Hathor's share price rose to 470c, above Rio's 463c bid, so someone believes the game is not over.

Lonmin (LMI.L 1021p; Hi-Lo 2009-948p) speaks of balance sheet prudence, which will please it wary followers. The world Nº 3 platinum miner is rated at 700,000 oz/yr or 11.7% of total. In-house problems have included major breakdowns to its Nº 1 furnace, now settled, and on-going wage demands. Lonmin expects the settlement with the vociferous NUM to add 9%-10% to operating costs. The company sold 721,000oz in the year to September 30th 2011 but looks for 750,000 oz in 2012. It has 850,000 oz as a longer term goal. (Still a long way behind Impala and Anglo Plats) but will be influenced by the market. This, as we note in Precious Metals, is soggy right now.

The shares in **Glencore** have struggled to adjust to life with market restriction. At 14% above their low they track the Index but are still a full 25% adrift of their launch price in early 2011. The company reports "solid" Q3 results from its trading division despite market uncertainties. In house mined production was impressive, compared with the first 9 months of 2010: Coal +18%, zinc +19%, copper +40% and gold +45%.

Anglesey Mining (AYM.L 34.5p; Hi-Lo 92-34.75) reports that its 33% held associate Labrador Iron Mines (TSX) has appointed a new President and COO. Anglesey's CEO, Bill Hooley becomes Vice Chairman and director of LIM. Anglesey's other asset, the 100% held Parys Mountain Cu, Zn, Pb, mine in North Wales has a 7Mt resource but at only 9% combined, needs better prices.

Implats (IPLA.L 1349p; Hi-Lo 2312-1242p) is the South Africa and world's 2nd largest platinum miner 1.5M oz or 25% of world production, but is treading water. Q3 2011 results make sombre reading. Production was 12% down, refining 27% down and unit costs 10.8% higher. It is still struggling with indigenisation issues with its Zim subsidiary, Zimplats and has suffered three recent fatalities. Refined output slipped to 0.139M oz in Q3 compared with 0.19M oz in Q3 2010. Meanwhile the Zim Indigenisation Minister says the latest offer from Zimplats is "encouraging" but no details. Impala owns 87% of Zimplats. A surrender of 51% of this, as demanded, will further dent the body armour of the parent company.

Share Price Movements, Majors

Stocks	12 Nov 2011	19 Nov 2011	% Change	12 mo Hi-Lo	% Above Low
FTSE 100	5545.38	5363.0	-3.29%	6,002-4,790	11.96%
Anglo American	2467.0	2359.0	-4.38%	3,335-2,210	6.74%
Antofagasta	1198	1076.0	-10.18%	1,556-756	42.33%
BHPB	1992	1870.0	-6.12%	2,585.5-1,678	11.44%
ENRC	684.0	638.0	-6.73%	1,276-554	15.16%
Gem Diamonds	234.4	219.0	-6.57%	300-182	20.33%
Glencore International	440	398.7	-9.39%	550-348	14.57%
Hargreaves Services	1138	1170.0	2.81%	1,072-550	112.73%
Kazakhmys	931.5	862.5	-7.41%	1,634-793	8.76%
Rio Tinto	3467.5	3276.0	-5.52%	4,592–2,751	19.08%
UK Coal	32.5	32.0	-1.54%	83-32	0.00%
Vedanta	1162.0	1010.0	-13.08%	2,958–1,010	0.00%
Xstrata	1030.0	945.5	-8.20%	1,514-820	15.19%

Source: The London Times and the FT

Share Price Movements, Small and Medium Caps

There were more fallers than at the Grand National this week, but one runaway winner to lighten the way: **Sirius Minerals,** which put on a whopping 40% to 32p. This, after we recommended profit-taking following its previous week's performance in putting on 17% to 23p. This will be a hard act to follow. Countering it is **Beowulf,** the aspiring Finlandic iron ore miner. It is plugging away at a relatively mediocre target, 32% Fe but in a good jurisdiction. Does it deserve its Hi-Lo of 74.25p-3.5p? Does it deserve to have come in the past few months, from the 50s, to the 20s, back about 31 on November 5th to 20 last week and 17.75 this? There should be some investigation into this kind of behaviour.

We have again looked for some sectoral behaviour amongst the juniors, but it is not apparent.

Precious Metals: Up is Kryso (19%) down are Arian Silver (8%), Cluff Gold (4%), Nyota (9%), Orogen (6%), Vatukoula (4%), Conroy (11%).

Gemstones. Up is Richland (3%), but down are the rest. Karalian fell (16%). As the market dithers we can mostly expect positive action from those who dress themselves up for the ball. Yet the Prince Charmings (or majors) are becoming ultra-picky, but have the commodity the run of shareholders lack: money.

Of those reporting:

Karelian Diamonds (see below). One day, some day, somebody might find a diamond deposit in Finland, but this time around, it is not Karelian, despite its continued search. A cash placing of €1.32M was an achievement of which €400,000 was spent in the year to 31.5.11, but without success. The balance of €0.745M should get them through another season, but then?

Beowulf (See below) has completed a £6.7M placing with UK and Swedish institutional investors at 15p per share. This enlarges the company's capital to 210.4M shares. It explains the current share price, but the recent gyrations?

Discovery Metals (See below) has in the Boseto Cu-Ag project in Botswana, a potentially exceptional project. Just 11km north of the proposed concentrator at Boseto is the Zeta North East project now being drilled. It has just pulled 6m from 62m of 3-9% Cu and 74 g/t Ag. A long way to go, but most encouraging and in a safe jurisdiction.

Firestone Diamonds (See below) is a little like Petra Diamond's quieter brother. It does not do spectacular, but it does solid and chooses good jurisdictions. It purchased Kopane Diamonds, restarted the Liqhabong Mine in Lesotho and has started the BK11 pipe mine in Botswana. Its most recent tender in Botswana was disappointing in line with the markets, but it has the resources to ride out the storm. We believe Firestone can reasonably aim at 250,000 cpy production next year and 500,000 cpy beyond that.

Share Price Movements, Small and Medium Caps

	Company	12 Nov 2011	19 Nov 2011	% Change	1 year Hi-Lo	% above low
AFCR	African Consolidated Resources	3.25	2.63	-19.08%	11.75-2.63	0.00%
AXM	Alexander Mining Plc	5.13	5.25	2.34%	17.0-5.0	5.00%
AGQ	Arian Silver Corporation	21.38	19.63	-8.19%	54.25-6.5	202.00%
AAU	Ariana Resources Plc	5.00	4.88	-2.40%	5.25-2.25	116.89%
BEM	Beowulf Mining Plc	20.25	17.75	-12.35%	74.25-3.5	407.14%
CLF	Cluff Gold	87.25	83.75	-4.01%	125.75-64.5	29.84%
CGNR	Conroy Gold and Natural Resources	3.25	2.88	-11.38%	12.9-2.75	4.73%
DCP	DiamondCorp	5.75	5.75	0.00%	16.9-6.38	0.00%
DME	Discovery Metals Ltd	86.75	85.0	-2.02%	96.0-37.25	128.19%
EUA	Eurasia Mining	0.70	0.70	0.00%	1.75-0.75	0.00%
FDI	Firestone Diamonds	12.5	12.25	-2.00%	36.5-12.25	0.00%
FML	Frontier Mining Limited	3.55	3.40	-4.23%	8.5-3.05	11.48%
GEM	Gemfields	24.25	24.38	0.54%	24.75-3.75	550.13%
GDP	Goldplat	12.00	12.0	0.00%	13.25-8.0	50.00%
HMB	Hambledon Mining	3.88	3.88	0.00%	8.25-3.12	24.36%
HER	Herencia[3]	2.10	2.03	-3.33%	4.0-0.5	306.00%
KAH	Kalahari	224.25	216.0	-3.68%	301-142	52.11%
KDR	Karelian Diamond Resources	2.38	2.0	-15.97%	5.25-1.0	100.00%
KEFI	Kefi Minerals	2.90	2.78	-4.14%	9.5-0.5	456.00%
KYS	Kryso Resources	25.63	30.38	18.53%	31.88-12.5	143.04%
MWA	Mwana Africa	4.25	4.0	-5.88%	14-3.98	0.50%
NYO	Nyota Minerals	7.75	7.05	-9.03%	30-7.4	0.00%
ORE	Orogen Gold Plc	0.77	0.72	-6.49%	1.62-0.2	260.00%
PDL	Petra Diamonds	120.25	107.5	-10.60%	189-60	79.17%
RLD	Richland Resources	9.0	9.25	2.78%	16.0-6.5	42.31%
SXX	Sirius Minerals Plc	22.75	32.0	40.66%	22.75-1.25	2460.00%
SNRP	Strategic Natural Resources	14.88	14.0	-5.91%	27.75-8.25	69.70%
TMC	Toledo Mining	22.75	22.38	-1.63%	34.25-20.25	10.52%
VGM	Vatukoula Gold	81.0	77.5	-4.32%	227-76.75	0.98%
ZOX	Zincox	59.13	57.63	-2.54%	77-32.25	78.70%

Source: The London Times and the FT

Metals and Minerals

Exchange Traded Metals

They were not due to set the house on fire this week, nor did they. Prices sagged. But miners and manufacturers have to look beyond the latest fix, as the Japanese trading houses recognised. They are seeking long term supplies and would normally be applauded for turning to Chile. In people terms that country is about 38-40 years old. It had a dodgy childhood and troubled adolescence, but now it is settling into middle management with its eye on the boardroom. Or it was before the **Anglo America-Mitsui-Mitsubishi** Government party spilled over into the small hours. The Japanese are bulging with money and they want some producing assets, particularly copper. Chile could provide that. It sits on 24% of the world's known resources, like 150Mt. Even gobbling it up at 3.2Mtpy will last 50 years. But a full half is controlled by its State Miner **Codelco**. If the Japanese want to slip into a pair of warm shoes, it is **Anglo American** or **Antofogasta**. If they choose Anglo and the rest will become history. Chile has slightly regretted its role in the tragic comedy, we feel. Having thrown in the rule book they say the problem could "take some years" to resolve. So, no big ship huh? Big copper properties in hospitable locations are in demand and as Mineweb tells us. This little problem will intensify it.

Metal Stocks in LME Warehouses

Metal	12 Nov 2011	19 Nov 2011	% Change
Aluminium	4,536,875	4,561,050	0.53%
Copper	410,025	399,625	-2.54%
Lead	378,775	375,800	-0.79%
Nickel	83,280	83,220	-0.07%
Tin	14,985	14,145	-5.61%
Zinc	756,925	751,825	-0.67%

Source: Mining Journal

Commodity Price Movements

Commodity		12 Nov 2011	19 Nov 2011	% Change
Aluminium	$/tonne	2,115	2,085	-1.42%
Copper	$/tonne	7,450	7,582	1.77%
Lead	$/tonne	1,948	1,996	2.46%
Nickel	$/tonne	18,140	17,925	-1.19%
Tin	$/tonne	21,600	21,400	-0.93%
Zinc	$/tonne	1,878	1,925	2.50%
Gold	$/ounce	1,776	1,727	-2.76%
Silver	$/ounce	34.58	32.17	-6.97%
Platinum	$/ounce	1,646	1,598	-2.92%
Brent Crude Oil	$/bbl	114.6	107.1	-6.54%
Platinum/Gold	Ratio	0.926	0.925	-0.11%

Source: The Times of London

Bulk Minerals

Iron Ore continued its spot-market recovery and the Coal Index bounced a little. Even spot uranium rallied. None of this prevented the major shares, both conglomerates and single minded, from slipping measurably. OK, they say one swallow does not make a summer. Well, it's winter north of the 45th and the swallows have headed off to Africa. They must know something we don't.

The **Spot Iron Ore Rally**, to $148/t into Chinese port, brings us back up to summer levels, as the debated quarterly pricing formula will probably pitch some 10-15% below the previous. Alongside lower levels for most minerals bar the precious, it has an obvious bearing on share price ratings. It has not stopped BHPB announcing $1.4bn of new investments in Australia including a new iron ore mine and power station development, Orebody 24, 10km from Mount Newman.

Potash remains a favourite as the major leap of Sirius Exploration (see Small Caps) testifies. It is noticeable, however, that most projects coming forward have a 4-5 year time lag to production, by which time the market should have tightened considerably. Amongst the explorer developers is **Encanto Potash Corp** (EPO.V C$0.26; Hi-Lo CR0.65-0.14) which is doing its own thing in the much favoured region of Saskatchewan, Canada. It is making much of its growing relationship with Muskowekan First Nation. Our fear had been that this was a thinly disguised BEE along the miserable failings of South Africa's model. But it seems the lads are actually paying to participate. They speak of a $3M equity investment at $0.33 per share plus a half warrant. The property has an N1 43-101 resource running 71.9Mt of KCl at 29.4% plus inferred of 60.5Mt. They plan to solution mine.

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

28 Oct 2011	4 Nov 2011	11 Nov 2011	18 Nov 2011
$116.9	$122.9	$137.7	$147.4

Source: The Steel Index

Precious Metals

PGMs: No Such Thing as a Monopoly. If asked to pick a commodity firmly in the grip of its producers, most would go for platinum. South Africa mines 75% of it and Russia another 13%. But if you are thinking of switching to its cheaper (and less efficient) sister, palladium, those two countries account for 82% of that. So we should have a market grip even tighter than OPEC on oil, but we do not. Its price, whilst historically high, has followed the magnetic pull of gold, rather than its own price-demand profile. This is odd, since despite its precious qualities, it is an industrial metal and over a half is used in auto catalysts. This is where the fun starts. A PGM catalyst filters the exhaust fumes from an internal combustion engine and converts the noxious components into water vapour and nitrogen. Now they tell us the demand for oil burning vehicles is rising at 10% per year worldwide. With that industry taking 50% of all platinum (and 66% of palladium) that is a 5% per year increase in total demand. But it is not happening. Johnson Matthey says it will only be 3% in the automotive sector, so why? Well it is partly cost efficiencies, like using more palladium, partly smaller vehicles, the use of bio-fuels and rigorous recycling. But word has not penetrated into South Africa yet. They continue to crank the production handle with a forecast surplus of 195,000 oz this year. For palladium it will be more pronounced, at 725,000 oz or 8% of gross demand. A major feature is recycling, largely by the recovery of spent autocatalysts. It will provide 23% of new supply of platinum and 25% of palladium.

Amongst this are two looming and probably unstoppable trends. Non-South African production is rising from North America. But Zimbabwe, which could geologically provide over 10% of total world needs, is gearing up. Conversely for palladium, Russia has for many years supplied large tonnages from State stocks and these are thought to be nearly depleted. So we could see the price differential close. Recycling has been stepped up, in line with the metal price. Thus:

PGM Supply and Demand

Metal	Mined Supply (1000 oz)	Recycling (1000 oz)	Gross Demand (1000 oz)	Stocks (1000 oz)
Palladium	7420	2195	8890	+725
Platinum	6395	1880	8080	+195

**Johnson Matthey 2011 Annual Surrey*

The focus of mining production remains South Africa. Conditions in the Bushveld are tough. The mines are deepish and dangerous but expansion is moving on apace as are wage demands. Yet the price is out of the industry's control. If gold pulls back, so will the PGMs.

RSA Miners Still In Fighting Mode. The NUM union thinks striking a good idea, so is rejecting the 7.5%-8.5% wage offer by Lonmin, the 3rd largest platinum producer. That this is twice the rate of inflation, that youth unemployment is at 50%, and the union does not have a fighting fund. It also pushes the extension of welfare benefits across the board. Mark you, Lonmin's earnings were up 64% in the year to Sept. 2011, at R1.8bn or $226M.

World Gold Mined Output remains steady. The 746t of Q3 indicates 2900t per year going forward, a sharp increase, but the trend for 2011 is c 2800t. Newish producers performing well include Burkina Faso, Cote d'Ivoire, Eritrea. The established mines in Mexico, Peru and Canada also moved ahead. Official purchases include Russia (15t to 852t,) Bolivia (14t), Thailand (25t).

Knowing from experience that price and demand can fall as well as rise, **Lonmin** warns that its growth strategy (to target 950,000 oz/yr) is not "set in stone" but dependant on market conditions. The 2011 target is 750,000 oz.

Silver, says GFMS, is a lining looking for a cloud. The most recent market review tells us to expect a price north of $50/oz compared with today's mid $30's. Much will be driven by investment demand, particularly coins and medals. For this year they look to average $35.66/oz up 77% year-on-year. The 2012 average sought is $45/oz. For mine production they expect a ninth successive annual gain, 4%. Government sales will continue to fall, fed by the CIS countries. Fabrication demand will rise 4%. Coin minting is expected up by a whopping 25%, but remember, that is portable collateral. (If gold were to follow the silver prediction it would be happy around $2300/oz. Somehow, we don't see it).

Gold Demand continues to rise, say the people who know: The World Gold Council. They tell us investment demand was the culprit. From around 12% in 1970 and negligible in 2000 it stands around 35% of total today. The call for jewellery has fallen, but still accounts for 50%.

Gold Demand (Tonnes)

Sector	2009	2010	2011			
			Q1	Q2	Q3	Trend
Gold Demand	3617	4000	967	945	1054	3955
Jewellery	1814	2017	539	454	466	1945
Investment	1393	1517	314	374	468	1541
Technology	410	466	114	117	120	468
London …Fix ($/oz)	972	1224	1386	1506	1702	1531

Source: WGC

Are there lessons to be learned? You bet your sweet life there are. We enjoyed 2009 on the crest of an economic wave and were content with gold below $1000/oz. The crash gathered momentum in late 2009 early 2010 so gold rose up, particularly investment demand. We have since had a false dawn of H1 2011 when commodity prices all bounced. Now we are locked in a currency crisis with gold taking the strain. If fiscal prudence is applied – and works – gold will not carry on reaching for the stars.

Minor Metals

Minor Metals

Minerals	Unit	Dec 2008	Dec 2009	Dec 2010	June 2011	Oct 2011	4 Nov 2011	11 Nov 2011	18 Nov 2011
Antimony	$/t	$4,000	$5,800	$12,000	$17,500	$13,500	$13,200	$12,800	12,800
Bismuth	$/lb	$7.75	$6.80	$9.00	$11.75	$12.20	$12.20	$11.80	11.60
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	$1,900	$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	108.7	108.44	106.94

Source: Mining Journal

Exchange Rates

Those of a delicate disposition find it terrifying that the country which prints all the paper money that counts and holds more gold than anyone else cannot produce a Presidential candidate who knows where the rest of the world is (let alone who runs it), is not embroiled in a current sex scandal or is trying to hide a past one. Yet as last week's chart showed once more, the dollar strengthened against all of the commodity-producing currencies despite its domestic dilemmas. As for the Eurozone, its problems are in danger of boring us. Like Charles the Second of England who, on his deathbed, apologised for taking an unconscionable time in dying. We speak of the contagion attaching to the coupon on long term government bonds. Seven percent is the death rattle and now it is allegedly threatening Spain and France and, well, serves-you-right, Greece and Italy. For a little light relief:

Government 10 Year Bonds Bid Yield %

Australia 4.08%	Canada 2.14%	France 3.44%	Greece 26.14%	Ireland 8.36%	Italy 6.71%
Japan 0.95%	Portugal 11.37%	Switzerland 0.69%	UK 2.24%	USA 2.01%	

Arguably if you were a business and could not afford to borrow at 7% you might be accused of doing things wrong. Like not earning enough or spending too much.

In the US they have the work ethic and when pushed, the thrift idea, as the jewellery trade has found out. For the defaulters, a long haul beckons.

Now a word of caution for those countries and companies who trade their commodities in dollars then convert back to domestic paper. Down on the year-to-date have gone, against the dollar:

Brazil (6%)	Iron ore, copper.
India (14%)	coal, iron ore, bauxite.
RSA (26%)	coal, gold, manganese.
Chile (5%)	copper.

Even gold is tiring of this Euro yawn.

Exchange Rate Movements

Currency	12 Nov 2011	19 Nov 2011	% Change
£:US$	1.61	1.58	-1.86%
£:€	1.17	1.17	0.00%
£:SA Rand	12.66	12.94	2.21%
US$:Aus$	0.97	0.99	2.06%
£:Aus$	1.57	1.57	0.00%
US$:Br Reale	1.74	1.78	2.30%
US$:C$	1.01	1.02	0.99%
US$:€	0.73	0.74	1.37%
US$:SA Rand	7.87	8.19	4.07%
US$:Rupee	50.12	51.34	2.43%
US$:HK$	7.78	7.79	0.13%
US$:UAE Dirhams	3.67	3.67	0.00%
US$:Israeli Shekel	3.72	3.72	0.00%
US$:Japanese Yen	77.07	76.90	-0.22%
US$:Thai Bhatt	30.80	30.80	0.00%
US$:Yuan	6.34	6.35	-1.86%

Source: Financial Times

Energy

Even as Syria lurched towards civil war and Iran continued to nurse its nuclear ambitions, the price of crude oil wavered for the first time in weeks. The uranium miners are beginning to face the unpalatable truth that there is a soft market. Yet the recovery in the iron ore price (the Chinese must be buying again) augers well for coking coal. Meanwhile, Australia is lifting its ban on uranium exports to India and BHPB has waved its cheque book at its shale oil ambitions in the USA. For energy, the game is on, by sector and location. To quantify this let us be reminded of the consumption of each energy type:

Consumption By Fuel (million tonnes oil equivalent and % of total) 2010

Country	Oil	Natural Gas	Coal	Nuclear	Hydro	Renewables	Total
World	4028 (33%)	2858 (24%)	3556 (30%)	626 (5%)	776 (6%)	159 (2%)	12,002 (100%)
USA	833 (38%)	588 (27%)	496 (23%)	190 (8%)	62 (3%)	34 (1%)	2,204 (100%)
China	429 (18%)	98 (4%)	1713 (70%)	17 (1%)	163 (7%)	12 --	2,432 (100%)
India	156 (30%)	56 (11%)	278 (53%)	5 (1%)	25 (5%)	5 (1%)	524 (100%)
European Union	662 (38%)	443 (26%)	270 (16)%	207 (11%)	83 (5%)	67 (4%)	1,753 (100%)

Source: BP

The great anomaly is the huge reliance of China and India on coal. The relative insignificance of nuclear power and the problems which beset it must grab the attention of the miners, too. Much is made of the shortage of fossil fuel resources as it is of their geographical and thus political dispositions.

They register like this:

Fuel Reserves-to-Production Ratios in Years

Fuel	World	USA	China	India	E.U.
Oil	46	11	10	30	9
Natural Gas	59	13	29	29	14
Coal	118	241	35	106	105

Source: BP

Fuel: Geographical Distribution of Known Reserves (%)

Fuel	World	USA	China	India	E.U	Middle East	Venezuela	Africa	Russian Federation
Oil	100%	2.2%	1.1%	0.7%	0.5%	84.4%	15.3%	9.5%	5.6%
Nat. Gas	100%	4.1%	1.5%	0.8%	1.3%	40.5%	2.9%	7.9%	23.9%
Coal	100%	27.6%	13.3%	7.0%	6.5%	*	0.1%	*	18.2%

Source: BP **Middle East and Africa combined Coal equals 3.8%*

These simple tables lay bare the economics and politics of energy production and consumption. They direct the policies of the miners. They tell us why the great new hopes, shale oil and gas, are being actively pursued in areas perceived as safe. So BHPB plans to spend $4bn (over 10% of its available war chest) on its newly acquired shale gas assets in the USA. Its entry fee was $17bn for the purchase of Petrahawk Energy this year. Perhaps too why Rio Tinto is chasing a relatively small prey in Hathor Uranium in Canada, but also the mega Riversdale coking coal in Mozambique.

But the uranium miners are hurting. **Paladin** (PDN.AX A$1.50; Hi-Lo $5.61-1.11) lost $123.4M in Q3 2011 including a $133M impairment charge on its Kayeletera Mine in Malawi. Palladin blames this on the reduced carrying value following the market deterioration post – Fukushima. Sales were a record at +2Mlbs whilst production 15% q-on-q to 1.24M lbs UzO8. The larger Heimrich, Namibia mien also suffered. **First Uranium** (FUM.J R189; Hi-Lo R1050-193) has seen its share price fall dramatically in the past year, now below 200c for the first time. It is now capitalised at only R500M, a half of the value when Anglo Gold Ashanti bought 20% in July. F.U. has two series of convertible notes due for redemption and looks increasingly unlikely to be able to honour them from in-house sources.

Australia will resume uranium exports to India if P.M. Julia Gillard has her way. They were banned on the grounds that the boys from Delhi might make things go bang in the night. As J.G. points out, this has not stopped Australia selling the material to Japan, China and the US. Our money is on the lady getting her way. India matters to Oz.

Spot Uranium Price, $/lb U_3O_8

31 Dec 09	31 Dec 2010	28 Oct 2011	5 Nov 2011	12 Nov 2011	19 Nov 2011
$44.0	$66.0	$51.75	$52.00	$52.75	55.25

Source: Mining Journal

Gemstones

This is unlikely to be the Christmas season for which the trade had hoped only six months ago. It will be at best subdued. The mining shares have tolerably ridden out the week bar **Petra Diamonds**, which has slipped 10.6% to 107.5p despite its pending admission to London's big board. **Richland Resources** (See Small Caps: tanzanites and sapphires) rallied 3% on the week but Gem Diamonds took a 6% hit to 219p. Botswana continues to build a pre-eminent position in the industry. The country hosted a visit by the worldwide executives of Henning & Co, the largest international diamond brokerage and consultancy, which has an office there.

Rockwell Diamonds has persuaded South Africa's NUM union that 24/7 working is the way to survive, even succeeding at its Saxendrift and Klipdam mines in Northern Cape, a province with 43% unemployment. The deal includes a two-year wage increase of 8% p.a. Let's hope diamond prices are 16% higher in 2013.

Gemfields (See Small Caps) is rapidly becoming the world's largest emerald miner via its Kagem, Zambia mine, on track to annualize at 33Mcpy of emerald and beryl. It has added a 75% share in a Mozambique ruby project with production expected in 18 months. Now it is looking for a sapphire mine; easier said than done if you want a big, world ranking one. This would give it three of the big four stones and they have no stated plans to do diamonds.

Trans Hex (TSXJ.J R360; Hi-Lo R380-202) is well used to survival. If you can do Angola you can do anything. Fortunately it also has South Africa (Baken, Ricktersveld and shallow water operations). So it turned in a H1 profit of $0.2M (loss $12.7M) from sales of 28,771 carats, all from RSA, down from 36,641 in like 2010. The average value was up 52% at $1372/ct but the company noted conditions down in the later stages.

Lucara Diamonds (LUC.TO C$0.84; Hi-Lo CR1.44-0.79) posted a Q3 2011 loss of $5.5M to 30.9.11, an increase of 73% over like 2010. Exploration expenses were $3.1M of that. It showed bravery in taking over the AK6 pipe project from African Diamonds in Botswana and now claims development is 84% complete. It has been a long time coming. The Mothae Mine in Lesotho is a producer and of big stones but at its very early stages. The Lucara cash position was reported as $70.7M on Sept. 30. It benefitted from a $50M debenture financing arrangement during the quarter, but it is noted this may not see its project to fruition.

True North Gems (TGX.V C$0.10; Hi-Lo C$0.18-0.09) announced the completing of its 2011 Yukon Field Programme where the targets are emeralds, base metals and gold. Its main stream remains its Aappalutoq ruby and pink sapphire property in Greenland. This is well advanced and promises to be of world class significance.

Countries

We sense a softening of the resource nationalism stance across the board. Even with that star turn, the Chile-Anglo American spat, the Government says the dispute will take a 'long time to settle'. That is a far cry from bag packing. Zambia has sneaked in its 6% copper export royalty hike and Western Australia has likewise got away with upping the levy on iron ore. But with Mr. Malema out to grass in South Africa we are left with Zim chasing 51% of nothing.

South Africa and Coal. Minister Trevor Manuel, who chairs the National Planning Commission, has reiterated the need for a coal policy. That might sound like a SOTBO statement but it is much needed. Here is a country devoid of crude oil and natural gas. It has uranium and an operating reactor but lacks the capital for a fully fledged programme. Then it has coal coming out of its ears. Although at 30 billion tonnes that is only 3.5% of the world total, only the USA, China, India and Russia have more. It is the 4th largest producer and 2nd largest exporter. Yet it has a domestic energy shortfall which threatens to stifle its economic ambitions. These are crucial since over 40% of its workforce is idle (not all by nature) and minerals exploitation is the only way forward. The national development plan is forthright:

> Coal will be the dominant fuel for the next 20 years. We need a national coal policy addressing domestic needs and a sustainable expansion of exports. Existing policy and regulatory uncertainty (hi, Mr. Malema) have stunted development. Transport will loom large to open up the Waterberg coalfield. A link to the Botswana coalfields and to Namibia, Walvis Bay is high on the list. The domestic export balance must be addressed. The report ended with an all-things-to-all men (sorry persons) bit about greenhouse gases, carbon emissions and Uncle Tom Cobley. That apart, it is a worthwhile read. Let's hope it is followed.

Zambia's doubling of its copper export royalty to 6% hardly came as a surprise and was taken on the chin by most producers. What is of more concern is the perceived entrenched level of corruption at senior level in the Civil Service. The new President is making, by most accounts, a determined effort to stamp it out.

Doing it the Chinese Way. Jaguar Mining Inc (JAG.N $7.70; Hi-Lo $8.18-4.03) has three gold mining operations in Minas Gerais State, Brazil. It targets 150,000-160,000 oz/yr and with a fourth in the pipeline, might aspire to be a 250,000 oz/yr producer. So what value would you ascribe? A rule of thumb is a small multiple of the annual value of production. At current production and $1700/oz you might get: 150,000 oz x $1700/oz x 1.5 = $382M. But a board fearful of losing its job might hold out for, say, $500M. Well, Jaguar has confirmed an unsolicited bid of $785M. Reportedly, it is by China's Shandong Gold Group. That is $9.30/share or 73% more than its previous close. A bit aggressive these Chinamen. That they tend to ship in an entire workforce and settle wage disputes with firearms will not be lost on the Brazilians.

The Chinese don't stand still. A Perth-based consultancy Intierra Resource Intelligence tells us: revenue from foreign mining assets reached $40bn in 2010 from $4168 bn of foreign investments. The top sources of revenue were ($bn) Australia (18.5), Kazakhstan (10.8), Russia (4.8).

Forward Diary

22 November 2011:	Signet Jewelers Interim Results
	Paragon Diamonds Final Results
	Stellar Diamonds AGM
	Discovery Metals AGM
23 November 2011:	Johnson Matthey Interim Result
	Coal of Africa AGM
24 November 2011:	Antofagasta Interim Results
	London Mining Interim Results
25 November 2011:	Nyota Minerals AGM
	Aquarius Platinum AGM
30 November 2011:	Harmony Gold AGM
4 & 5 December 2011:	Mining Journal Canada and Australia Days, respectively
6-7 December 2011:	Mines & Money, London

David Hargreaves
19 November 2011

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