

Metal Bulletin Research

Aluminium and Raw Materials Weekly Market Tracker

Weekly Feature: Alumina Analysis

Issue 175

2 November 2009

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Metal Bulletin Research LME price indicator

Ave. 3-month price for trading period November 2 - November 6 versus LME ave. 3-month price for trading period October 26 - October 30 of \$1,959/tonne



● The attempt to rally ran into overhead supply and prices are now pulling back to test the quality of underlying support. It appears \$2,000/tonne is a market ceiling and with recent announcements that a sustained rise above \$2,000/tonne would lead to some smelter restarts, the market is being weighed down. Furthermore, with LME stocks holding at a high level there is little to suggest any tightness which favours the downside overall.

● MBR expects prices to fall below or hover just above \$1,900/tonne for the remainder of the week.

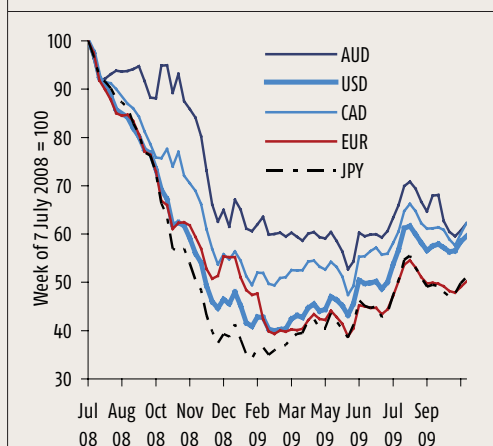
● On the demand side, overall European primary aluminium demand stays weak and the usual increase in demand seen after the summer slow period has failed to materialize in any significant way.

● On the supply side, Century Aluminium has said it would restart the Ravenswood smelter if prices consolidate at \$2,000/tonne or above. However, MBR sees several challenges this restart could face.

● The problems of UC Rusal in Guinea has been dominating the alumina industry in recent weeks. Moreover, bauxite exports from Guinea are set to fall for the first time ever.

Weekly average LME 3-month price index in AUD, USD, CAD and EUR, from July 08

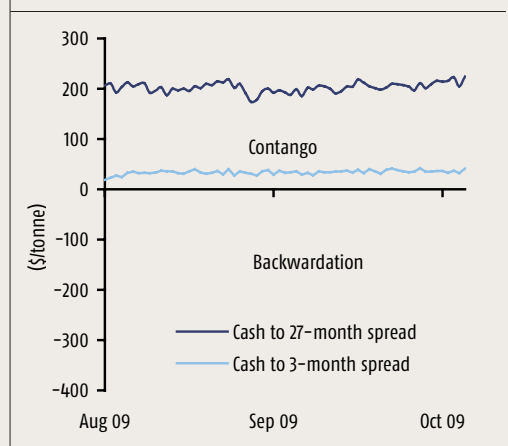
Canadian dollar weakens against USD



Source: Metal Bulletin Research, Oanda

Cash to 3-month and Cash to 27-month spreads, 3 August 09 - 2 Nov 09, (\$/tonne)

There has been very little movement in spreads



Source: Metal Bulletin Research, LME

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World Primary Aluminium Supply/Demand Balance, Alumina Analysis, Stocks Analysis and Prices, 2008-2012																	
	2008	2009f (c)	2010f	2011f	2012f	2008				2009				2010			
						Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4f	Q1f	Q2f	Q3f	Q4f
Regional Analysis																	
Western World Production (a)	21,025	19,290	19,771	20,581	21,803	5,263	5,258	5,283	5,220	4,892	4,761	4,786	4,850	4,814	4,891	5,007	5,060
y-on-y % change	2.6%	-8.3%	2.5%	4.1%	5.9%	5.7%	3.5%	1.9%	-0.6%	-7.1%	-9.5%	-9.4%	-7.1%	-1.6%	2.7%	4.6%	4.3%
Net Exports from FCPE (1) (b)	3,234	1,249	1,948	849	829	798	785	817	835	632	-215	305	527	489	510	542	407
of which:																	
China	-11	-1,544	-539	-1,680	-2,176	-16	-9	-10	23	-126	-886	-381	-150	-139	-100	-100	-200
CIS + Eastern Europe	3,245	2,793	2,487	2,529	3,005	814	793	826	811	758	672	686	677	628	610	642	607
Total Western Supply (a+b)	24,258	20,539	21,719	21,430	22,632	6,061	6,043	6,100	6,055	5,524	4,547	5,091	5,376	5,303	5,400	5,549	5,467
y-on-y % change	2.4%	-15.3%	5.7%	-1.3%	5.6%	5.7%	3.0%	1.2%	-0.1%	-8.9%	-24.8%	-16.5%	-11.2%	-4.0%	18.8%	9.0%	1.7%
Consumption	23,684	19,894	20,667	21,672	22,332	5,852	6,082	5,830	5,920	4,999	5,027	4,866	5,003	4,982	5,240	5,027	5,418
y-on-y % change	-2.0%	-16.0%	3.9%	4.9%	3.0%	0.4%	-0.9%	-0.7%	-6.4%	-14.6%	-17.3%	-16.5%	-15.5%	-0.3%	4.2%	3.3%	8.3%
W. World Market Balance	574	645	1052	-242	300	209	-39	269	135	525	-481	225	374	321	160	522	48
World Analysis																	
Production	39,337	36,735	38,884	41,581	44,972	9,685	9,983	10,103	9,566	8,723	8,796	9,379	9,835	9,531	9,655	9,823	9,876
y-on-y % change	3.2%	-6.6%	5.9%	6.9%	8.2%	7.1%	6.8%	3.5%	-4.1%	-9.9%	-11.9%	-7.2%	2.8%	9.3%	9.8%	4.7%	0.4%
Consumption	38,555	35,135	37,972	41,393	43,893	9,509	9,872	9,699	9,475	8,313	8,562	8,961	9,299	9,162	9,559	9,371	9,880
y-on-y % change	2.6%	-8.9%	8.1%	9.0%	6.0%	6.2%	4.1%	5.0%	-4.2%	-12.6%	-13.3%	-7.6%	-1.9%	10.2%	11.6%	4.6%	6.2%
World Market Balance	781	1600	912	188	1079	176	111	404	91	409	234	418	536	368	96	452	-4
Stock Analysis																	
Total Reported Stocks (2)	4,568					3,043	3,085	3,487	4,568	5,536	6031						
Weeks' Consumption (3)	6.3					4.1	4.1	4.7	0.0	8.6	9.2						
Total Stocks (4)	4,975	6,575	7,487	7,674	8,754	4,370	4,481	4,886	4,976	5,686	6,520	6,938	7,475	7,843	7,939	8,391	8,387
Weeks' Consumption (3)	6.7	9.8	10.3	9.7	10.4	5.9	5.9	6.6	6.9	8.8	9.9	10.2	10.6	11.0	10.8	11.8	11.2
Alumina Analysis (9)																	
Spot prices ave (Fob) (7) (\$/tonne)	352.2	227.5	310.0			395.0	404.7	372.3	236.7	189.3	208.5	262.2	250.0	300.0	300.0	320.0	320.0
as % of LME 3-m	13.4%	14.1%	17.6%			14.2%	13.5%	13.1%	12.5%	13.6%	13.7%	14.3%	14.7%	17.6%	17.4%	18.1%	17.2%
Chinese spot (Rmb/tonne) (8)	3473.7	2318.3	2550.0			4042.9	3514.6	3262.5	3075.0	2409.8	2163.2	2300.0	2400.0	2500.0	2500.0	2600.0	2600.0
World MGA production	77,271	74,637	77,385	81,666	88,188	18,736	19,253	19,860	19,421	17,748	17,515	19,511	19,863	19,196	19,354	19,417	19,417
World MGA demand	77,014	72,713	76,203	81,308	88,087	18,958	19,549	19,785	18,722	17,110	17,211	19,073	19,319	18,643	18,863	19,297	19,400
World Market Balance	257	1924	1182	359	100	-222	-296	75	700	638	304	438	544	553	492	120	17
LME Prices/Forecasts (5)																	
Cash: (\$/tonne)	2,576	1,579	1,723	1,796	1,865	2,729	2,941	2,792	1,836	1,360	1,488	1,806	1,660	1,660	1,680	1,730	1,820
Three-month: (\$/tonne)	2,625	1,614	1,763	1,995	2,095	2,773	2,989	2,844	1,888	1,397	1,524	1,837	1,700	1,700	1,720	1,770	1,860
Cash: (£/lb)	117	72	78	81	85	124	133	127	83	62	68	82	75	75	76	78	83
Three-month: (£/lb)	119	73	80	91	95	126	136	129	86	63	69	83	77	77	78	80	84

Source: Metal Bulletin Research, IAI, LME, WBMS

Notes: (1) Former centrally planned economies. Equals net exports of primary aluminium and unwrought aluminium alloy. (2) See table below for breakdown. (3) Based on total world consumption. (4) Includes other "reported" stocks and MBR's estimate of "unreported" stock at period-end. (5) Relates to official daily average prices, with the exception of the high and low values which can be set throughout the LME trading day. (6) 2009 is estimated with figures from Q1 2009 and forecasts for Q2, Q3 and Q4 2009. (7) Basis fob Australia. (8) Chinese free market metallurgical grade, delivered duty paid Rmb/Tonne. (4) Numbers for this period and beyond are forecasts. (5) Former centrally planned economies. (9) Alumina prices are not forecast beyond 2010.

Reported Primary Aluminium Stocks ('000 tonnes) (1)

	IAI Unwrought						LME											Total Stocks	Change (4)
	Afr	NAM	LAM	Asia	Eur	Aus	Total	Asia	Eur	NAM	LME Total	Comex Total	SHFE (2)	Japan Port (3)					
Oct 08	79	328	136	280	690	113	1,626	463	286	779	1,528	32	206	254	3,647	160			
Nov 08	49	317	148	264	713	113	1,604	547	368	909	1,824	30	200	267	3,925	278			
Dec 08	67	306	143	284	779	97	1,676	650	643	1,045	2,338	35	207	313	4,568	644			
Jan 09	92	325	157	272	750	94	1,690	781	844	1,185	2,811	32	179	359	5,071	503			
Feb 09	74	308	162	297	701	96	1,638	883	1,022	1,322	3,227	32	200	368	5,464	393			
Mar 09	63	317	166	265	652	89	1,552	880	1,139	1,458	3,477	31	142	334	5,536	72			
Apr 09	56	285	143	242	600	87	1,413	870	1,296	1,627	3,792	33	141	292	5,671	135			
May 09	54	315	141	263	542	86	1,401	1,014	1,483	1,740	4,237	31	177	243	6,090	419			
Jun 09	53	248	136	217	489	81	1,224	1,041	1,516	1,837	4,395	38	168	206	6,031	-59			
Jul 09	72	263	119	213	434	78	1,179	1,089	1,566	1,910	4,565	50	180	171	6,145	114			
Aug 09	72	272	124	215	472	81	1,236	1,089	1,588	1,936	4,613	40	220	192	6,301	156			
Sep 09	73	255	110	228	449	76	1,191	1,086	1,585	1,942	4,614	48	230	169	6,223	-78			
Q2 07	74	345	154	256	531	122	1,482	513	96	214	824	42	24	228	2,599	-95			
Q3 07	108	365	131	276	552	110	1,542	511	131	296	937	49	67	222	2,817	218			
Q4 07	92	402	136	249	565	109	1,553	428	147	354	929	40	89	199	2,810	-7			
Q1 08	83	403	139	212	651	119	1,607	401	148	483	1,032	36	173	197	3,043	233			
Q2 08	66	391	165	222	601	120	1,565	379	198	516	1,093	41	183	203	3,085	42			
Q3 08	112	343	139	253	702	108	1,657	419	256	702	1,377	33	190	230	3,487	402			
Q4 08	67	306	143	284	779	97	1,676	650	643	1,045	2,338	35	207	313	4,568	1,081			
Q1 09	63	317	166	265	652	89	1,552	870	1,296	1,627	3,792	31	142	334	5,536	968			
Q2 09	53	248	136	217	489	81	1,224	1,041	1,516	1,837	4,395	38	168	206	6,031	494			
Q3 09	73	255	110	228	449	76	1,191	1,081	1,541	1,962	4,583	48	230	169	6,223	192			
2004	48	466	109	196	863	106	1,788	247	434	12	693	61	60	295	2,896	-678			
2005	66	459	105	301	746	120	1,797	344	220	80	644	160	46	296	2,942	46			
2006	85	431	113	259	612	121	1,621	503	103	93	698	122	19	234	2,694	-248			
2007	92	402	136	249	565	109	1,553	428	147	354	929	40	89	199	2,810	116			
2008	67	306	143	284	779	97	1,676	650	643	1,045	2,338	35	207	313	4,568	1,758			

Source: Metal Bulletin Research, IAI, LME, Comex, SHFE, Reuters

Notes: (1) At period-end (2) Shanghai Futures Exchange (3) Stocks held at major Japanese ports (Yokohama, Nagoya and Osaka) (4) Change from preceding period

Market Analysis

- US dollar stays weak, but aluminium prices tumble
- \$2,000/tonne appears to be a psychological barrier to the market
- LME inventories continue slow and steady decline

Market Outlook

Aluminium prices fell towards \$1,900/tonne after a US dollar and oil price fueled rally faltered. MBR sees \$2,000/tonne as being a significant barrier to upward price moves as the threat of increase supply from smelters restarting capacity at this level is weighing down on the market. Furthermore, if price rises above \$1,700/tonne were difficult for

mid-stream producers to push onto their struggling consumer bases, prices above \$2,000/tonne would be even harder to pass on. On the stock side, a consistent and steady decline in LME stocks since August suggest the world market is in balance. MBR expects this trend to continue in Q4 as demand outside of Asia is not expected to surge.

After another rally attempt fizzled towards the end of last week, 3-month aluminium descended to \$1,900/tonne to close at \$1,910 today. This is approximately where it had been prior to US dollar driven rally that saw it peak at just above \$2,000/tonne last week.

US dollar falls out of favour

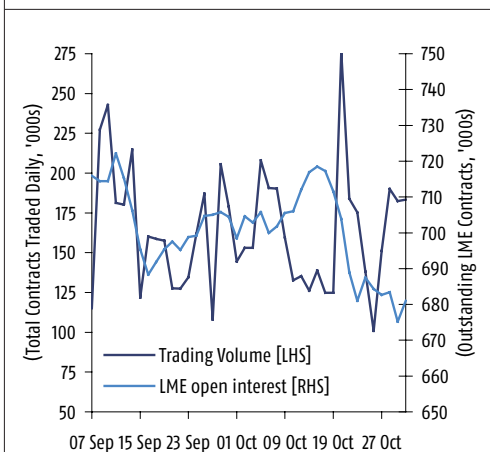
Although the US dollar remains at a multi-month low against other major currencies the aluminium market seems to have ceased focusing on it so strongly and the industry fundamentals appear to have reasserted themselves. MBR sees the lack of a pick-up in physical demand in Europe as being one of the major reasons for this. At the present time it appears that \$2,000/tonnes represents a significant price ceiling for the metal and MBR suspects this ceiling is due to fundamentals. As a case in point, Century Aluminium recently suggested it would restart capacity if the price was sustained above this ceiling and it is likely other companies would do likewise. The threat of this supply increase appears to be working against price rises.

LME stocks continue to decline

Inventories at LME warehouses have been declining almost consistently since the end of August. The pace at which stocks have been declining so far suggest that the global aluminium market is in balance. In absolute terms, a 30,000 tonnes decline in total LME stocks in October represents less than 1% of warranted metal. As a result, total stocks as weeks of consumption barely moved, and as of Q4 they remain at unsustainable levels of over 10 weeks. The flows of metal by location reinforce the trend we have seen over the last few months, with stocks in Asia seeing the larger outflows and those in North America the largest net inflows. LME warehouses in Europe have also seen outflows of metal in October, but if we believe what we hear from physical players, these declines can not be attributed to a surge in demand in the region.

LME open interest and trading volume, 7 Sept 09 – 30 October 09

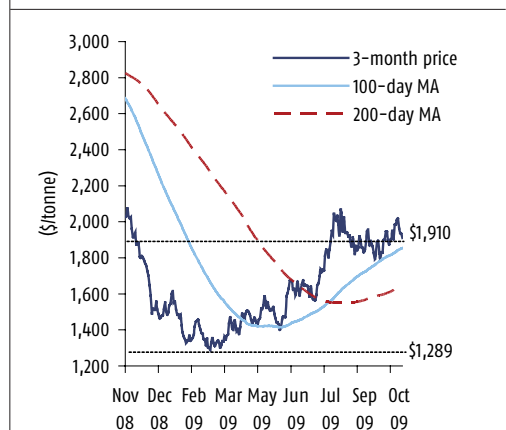
Open interest falls as long positions closed



Source: LME, Metal Bulletin Research

LME 3-month aluminium price, 3 November 08 – 2 November 09, (\$/tonne)

Price backs away from \$2,000/tonne



Source: LME, Metal Bulletin Research

Metal Bulletin Research Global Aluminium Prices, Premiums & Freight

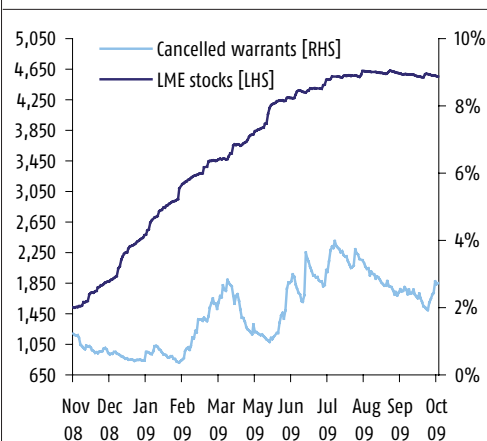
	LME Prices					Spot Premiums (1)			Currency		Transaction Prices			Freight		
	LME cash \$/t	LME 3-m \$/t	LME 15-m \$/t	LME 27-m \$/t	cash-3 c'tngo \$/t	Euro d/p sp \$/t ²	US MW spot €/lb ³	CIS (EU) \$/t	Japan d/u sp \$/t	Yen-Dollar ¥/\$	Euro-Dollar euro/\$	Euro spot euro/kg	US MW spot €/lb	Japan spot ¥/kg	Baltic Dry Index	Change on prev. Period ⁴
Jul 08	3,071	3,122	3,239	3,299	51	82.2	4.3	57.0	93	106.4	0.79	1.48	85.7	192.9	3,667	-19.1%
Aug 08	2,764	2,817	2,968	3,068	53	62.5	4.4	57.0	93	108.6	0.82	1.53	84.1	195.5	2,746	-25.1%
Sep 08	2,526	2,577	2,743	2,861	51	62.5	4.6	57.0	93	111.9	0.83	1.57	85.4	206.6	2,220	-19.2%
Oct 08	2,122	2,179	2,362	2,493	57	62.5	4.6	57.0	75	110.7	0.81	1.61	88.7	214.3	2,207	-0.6%
Nov 08	1,853	1,906	2,085	2,227	53	47.5	4.5	57.0	65	111.0	0.81	1.58	87.1	211.5	2,804	27.1%
Dec 08	1,490	1,536	1,689	1,804	45	39.2	4.3	57.0	62	114.7	0.83	1.69	92.0	227.7	3,161	12.8%
Jan 09	1,413	1,449	1,585	1,699	36	37.5	4.2	53.1	59	118.4	0.85	1.82	98.0	249.6	2,916	-7.8%
Feb 09	1,330	1,368	1,510	1,627	38	35.3	4.2	50.0	59	118.5	0.84	1.97	107.0	273.1	2,600	-10.8%
Mar 09	1,336	1,373	1,517	1,635	37	26.9	4.1	50.0	59	115.7	0.83	2.04	113.0	281.4	2,262	-13.0%
Apr 09	1,421	1,459	1,610	1,738	38	37.5	4.2	50.0	58	118.0	0.84	2.14	116.9	295.7	2,444	8.0%
May 09	1,461	1,498	1,650	1,755	37	38.6	4.3	50.0	59	117.2	0.83	2.11	115.9	292.1	2,599	6.3%
Jun 09	1,574	1,605	1,728	1,836	32	53.1	4.5	50.0	88	117.2	0.82	2.23	124.8	314.9	2,465	-5.1%
Jul 09	1,668	1,695	1,804	1,894	27	63.3	5.0	50.0	58	111.9	0.78	2.32	135.3	326.3	2,442	-1.0%
Aug 09	1,934	1,966	2,068	2,136	32	65.0	5.1	50.0	65	111.9	0.78	2.32	135.3	326.3	2,442	-1.0%
Sep 09	1,834	1,867	1,968	2,032	33	66.2	5.4	50.0	77	114.5	0.79	2.05	118.6	291.9	2,718	11.3%
Q2'07	2,761	2,797	2,691	2,525	37	153.7	3.4	46	73	120.8	0.74	2.16	128.7	342.3	5,988	28.3%
Q3'07	2,552	2,610	2,661	2,592	59	127.5	3.3	48	67	117.9	0.73	1.95	118.8	308.5	7,410	23.7%
Q4'07	2,448	2,499	2,607	2,637	51	113.4	3.7	48	65	113.2	0.69	1.77	114.5	283.9	10,319	39.3%
Q1'08	2,729	2,773	2,841	2,862	44	104.9	4.1	46	77	105.5	0.67	1.90	128.5	296.7	7,367	-28.6%
Q2'08	2,941	2,989	3,081	3,108	48	97.7	4.6	43	93	104.3	0.64	1.94	138.0	316.3	9,827	33.4%
Q3'08	2,792	2,844	2,988	3,080	52	69.1	4.4	38	93	107.7	0.66	1.89	130.9	310.1	7,146	-27.3%
Q4'08	1,836	1,888	2,060	2,190	52	49.7	4.4	22	67	96.4	0.76	1.42	87.1	183.1	1,142	-84.0%
Q1'09	1,360	1,397	1,537	1,654	37	33.2	4.2	25	59	93.5	0.77	1.07	65.8	132.6	1,551	35.9%
Q2'09	1,488	1,524	1,665	1,779	35	43.1	4.3	33	68	97.6	0.74	1.12	71.7	151.6	1,659	7.0%
Q3'09	1,488	1,524	1,665	1,779	35	64.8	5.2	43	66	93.8	0.70	1.31	87.4	176.2	2,770	67.0%
2005	1,898	1,899	1,813	1,750	2	118	5.7	53	69	110.1	0.80	1.62	91.8	216.9	3,371	-25.2%
2006	2,567	2,592	2,461	2,316	25	125	5.6	51	69	116.4	0.80	2.14	122.2	307.0	3,180	-5.7%
2007	2,639	2,662	2,631	2,536	23	143	3.5	48	70	117.8	0.73	2.04	123.2	319.6	7,067	122.3%
2008	2,576	2,625	2,744	2,812	49	80	4.4	37	82	103.5	0.68	1.79	121.1	276.5	6,346	-10.2%

Source: Metal Bulletin Research, LME, Baltic Exchange

Notes: (1) Term "d/p" represents duty-paid, "d/u" represents duty-unpaid, "MW" is midwest, "EU" is delivered European port. (2) Euro premium is indicator for min. 99.7% western ingot delivered in warehouse Rotterdam. (3) US premium indicator is for P1020 midwest western material. (4) Change from preceeding period (i.e. month-on-month, quarter-on-quarter, etc)

LME warehouse stocks and cancelled warrants, 3 November 08 – 30 October 09

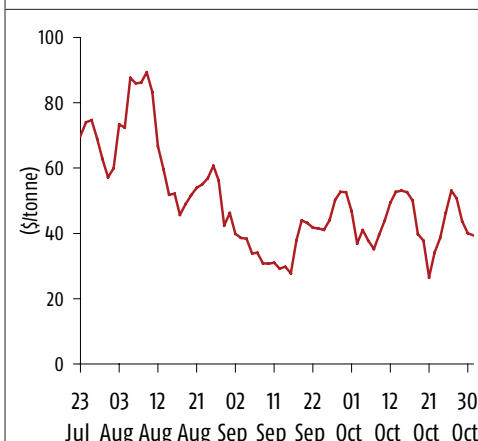
Cancelled warrants see a marked increase



Source: LME, Metal Bulletin Research

Rolling weekly volatility of 3-month contract, 23 July 09 – 2 November 09

Weekly volatility see-saws as the price jumps



Source: LME, Metal Bulletin Research

Technical Analysis

- Aluminium tried higher but ran into overhead supply
- Support between \$1,880–1,890/tonne expected to hold
- Overall look to range trade within the Bollinger bands

Technical Outlook

Aluminium prices are broadly trading sideways with a slight upside bias. The breakout of the down channel in recent weeks has faltered with prices now pulling back to the top of the former channel again at around \$1,880/tonne, which also coincides with where the up trend line lies at \$1,890/tonne. This should provide a good area of support, however with the RSI and stochastics trending lower it does look as though support

will be tested – if it breaks then a return towards the \$1,830/tonne area would not be surprising and this may provide a short-term jobbing opportunity. Overall with the Bollinger bands converging again, prices look set to continue consolidating and as such we would look for range trading opportunities between the Bollinger bands which currently run between \$2,000/tonne and \$1,830/tonne.

Moving averages and Bollinger band: Moving sideways, but converging



Stochastics: Bearish

RSI: Bearish

Demand Analysis

- Overall, European demand for primary stagnates...
- ...but demand from Central and Eastern European auto makers helps the ME
- Chinese semi-fabricators looking to the export market for future growth

Market Outlook

The European market has failed to pick up significantly after the summer holiday slow period. The only premium increases we have seen, and we are likely to see, have been minor relative to gains seen in previous years. The automotive scrappage schemes are either ending or will end soon and even while they were full swing, vehicle

production failed to reach 2008 levels. However, certain geographical regions have seen marked increase in extrusion demand and this has been helping Middle Eastern mills geared for export stand above the lacklustre performance of their peers. MBR expects a continued, but slow improvement in European demand for Q4.

The Euro-Zone PMI peaked above 50 for the first time in 15 months in September, suggesting parts of the trading bloc are becoming more bullish.

European demand levels for primary aluminium remains lacklustre...

Although some premiums in Europe have risen in recent weeks overall demand growth from midstream producers has been poor since the end of the summer holiday. This reflects a downstream market that remains stagnant and has not been helped by the prices increase midstream producers have had to push on to consumers of their semi-fabricated products due to LME price jumps. While the automotive sector in Europe has shown some strength on the back of vehicle scrappage schemes we have not seen any major restocking efforts. Moreover, little new builds are coming online in the constructor sector. Until both these sectors improve MBR does not expect further premium hikes or consumption growth in Europe.

...although export geared Middle Eastern mills are benefiting

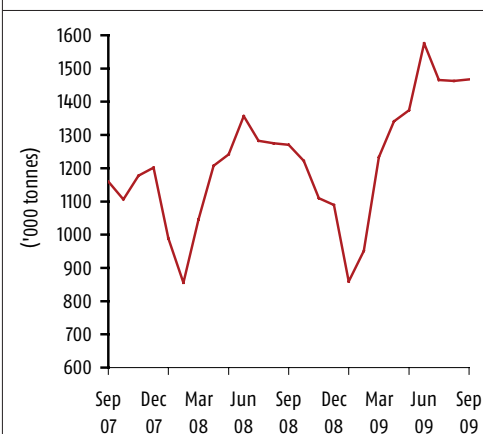
Despite the overall the European market situation remaining poor there have been certain areas which have seen a pick-up in activity in recent months. Specifically, the automotive industry in Central and Eastern Europe has seen a marked increase. Given their geographically favourable location Middle Eastern extruders have been benefitting from this, especially those in Turkey.

Chinese extruders operating below capacity

Despite record levels of semis (at 1.46m tonnes per month) and vehicle production, Chinese extruders are running below capacity. Also, despite the nation's stimulus plan, industry players are looking to a renewed export market, specifically to Asia, for mill utilization to increase.

Chinese semi-fabricated aluminium production, Sept 2007 – Sept 2009

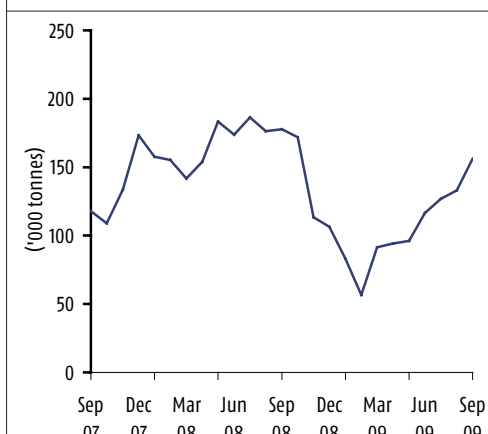
semis manufacturing at record levels...



Source: Antaike, CNIA, Metal Bulletin Research

Chinese semi-fabricated aluminium product exports, Sept 2007 – Sept 2009

...but exports still below pre-recession levels



Source: Antaike, CNIA, Metal Bulletin Research

Semi-Fabricated Aluminium Production and Trade ('000 tonnes)

	2007	2008	Q2 08	Q3 08	Q4 08	Q1 09	Q2 09	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09
USA shipments																
Sheet and plate	3,788	3,714	966	979	813	756	851	247	254	239	263	252	267	278	279	285
Foil	597	519	139	135	107	100	122	27	35	31	35	38	37	37	41	40
Extruded products	1,634	1,448	401	360	281	253	353	72	86	81	85	82	86	69	67	68
Total	6,020	5,681	1,506	1,474	1,201	1,110	1,326	346	375	352	383	372	390	384	387	394
German production																
Rolled products	1,903	1,801	483	472	367	359	377	91	109	117	133	121	120	136	149	-
Extruded products	615	592	160	158	117	102	107	24	35	33	34	34	34	38	42	-
Total	2,518	2,393	643	630	484	461	484	114	144	150	167	155	154	174	191	-
Japanese production																
Sheet and plate	1,355	1,352	366	347	308	204	276	84	65	66	73	85	90	101	104	85
Foil	137	128	34	33	29	15	24	7	5	5	5	7	7	9	10	9
Extruded products	972	888	230	226	208	143	160	60	52	46	46	52	50	58	62	54
Total	2,464	2,367	630	606	545	362	460	151	122	117	123	144	147	169	176	148
Chinese production and trade																
Semis imports	690	619	167	160	126	109	151	43	31	36	42	46	49	57	59	50
Semis exports	1855	1898	511	540	391	231	307	106	83	57	91	94	96	117	127	133
Semis production	11568	13943	3,805	3,828	3,421	3,043	4,291	1,089	859	951	1,234	1,341	1,375	1,575	1,465	1,462
Apparent internal demand	10,403	12,664	3,461	3,448	3,156	2,921	4,136	1,026	807	930	1,184	1,292	1,328	1,516	1,397	1,379

Source: Metal Bulletin Research, Aluminum Association, CNIA, China Customs

Global Primary Aluminium Consumption Estimates and Forecasts ('000 tonnes)

	Western World							Non-Western World				Global %	
	Afr	N.Am	L.Am	Asia	W.Eur	Aus	Total	China	CIS	E.Eur	Total	Global	Ch. y-on-y
QUARTERLY ('000t)													
Q4'06	113	1,967	363	1,840	1,840	98	6,221	2,299	279	229	2,807	9,029	5.8%
Q1'07	96	1,829	357	1,713	1,739	95	5,828	2,667	246	211	3,124	8,952	9.2%
Q2'07	101	1,934	363	1,784	1,855	101	6,137	2,863	258	225	3,346	9,483	8.7%
Q3'07	109	1,821	367	1,720	1,760	97	5,874	2,897	248	213	3,359	9,233	10.1%
Q4'07	119	1,942	382	1,891	1,891	104	6,327	3,070	269	229	3,567	9,894	9.6%
Q1'08	98	1,749	370	1,727	1,814	95	5,852	3,182	251	224	3,657	9,509	6.2%
Q2'08	103	1,846	376	1,798	1,858	101	6,082	3,298	264	229	3,791	9,872	4.1%
Q3'08	111	1,673	381	1,734	1,836	97	5,830	3,389	253	226	3,868	9,699	5.0%
Q4'08	121	1,645	396	1,906	1,749	104	5,920	3,065	274	216	3,555	9,475	-4.2%
Q1'09	97	1,311	355	1,609	1,534	93	4,999	2,867	227	221	3,315	8,313	-12.6%
Q2'09	102	1,286	360	1,675	1,505	99	5,027	3,080	238	217	3,535	8,562	-13.3%
Q3'09	110	1,235	365	1,615	1,446	95	4,866	3,659	228	208	4,095	8,961	-7.6%
Q4'09f	120	1,210	379	1,776	1,416	102	5,003	3,845	247	204	4,296	9,299	-1.9%
Q1'10f	100	1,323	369	1,637	1,458	94	4,982	3,739	234	208	4,181	9,162	10.2%
Q2'10f	104	1,400	376	1,705	1,555	101	5,240	3,852	245	222	4,319	9,559	11.6%
ANNUAL ('000t)													
2001	366	6,191	976	5,303	5,778	363	18,976	3,600	846	620	5,066	24,042	151.5%
% change 00-01	8.2%	-9.6%	2.6%	-4.4%	-4.8%	-7.6%	-5.8%	9.1%	4.7%	1.6%	7.4%		
2002	348	6,597	1,002	5,532	6,039	373	19,890	4,212	920	628	5,760	25,651	6.7%
% change 01-02	-5.0%	6.6%	2.6%	4.3%	4.5%	2.8%	4.8%	17.0%	8.8%	1.3%	13.7%		
2003	357	6,797	1,062	6,011	6,320	410	20,957	5,202	880	703	6,785	27,742	8.2%
% change 03-04	2.5%	3.0%	6.0%	8.7%	4.7%	10.1%	5.4%	23.5%	-4.4%	11.9%	17.8%		
2004	366	7,500	1,219	6,646	6,603	437	22,771	6,086	909	706	7,701	30,473	9.8%
% change 03-04	2.6%	10.3%	14.8%	10.6%	4.5%	6.5%	8.7%	17.0%	3.3%	0.5%	13.5%		
2005	380	7,567	1,276	6,780	6,717	451	23,171	7,091	964	783	8,839	32,009	5.0%
% change 04-05	3.8%	0.9%	4.6%	2.0%	1.7%	3.4%	1.8%	16.5%	6.1%	10.9%	14.8%		
2006	409	7,653	1,395	6,960	7,055	374	23,847	8,580	1,040	879	10,499	34,346	7.3%
% change 05-06	7.8%	1.1%	9.4%	2.7%	5.0%	-17.1%	2.9%	21.0%	7.9%	12.2%	18.8%		
2007	425	7,526	1,468	7,108	7,244	396	24,167	11,497	1,021	877	13,396	37,563	9.4%
% change 06-07	3.8%	-1.7%	5.2%	2.1%	2.7%	5.7%	1.3%	34.0%	-1.8%	-0.1%	27.6%		
2008	434	6,913	1,522	7,164	7,256	396	23,684	12,934	1,042	895	14,871	38,555	2.6%
% change 07-08	2.1%	-8.1%	3.7%	0.8%	0.2%	0.0%	-2.0%	12.5%	2.0%	2.0%	11.0%		
2009 f	429	5,043	1,459	6,675	5,900	388	19,894	13,451	940	850	15,241	35,135	-8.9%
% change 08-09	-1.1%	-27.1%	-4.1%	-6.8%	-18.7%	-2.0%	-16.0%	4.0%	-9.8%	-5.0%	2.5%		
2010 f	439	5,446	1,521	6,792	6,074	395	20,667	15,469	969	867	17,305	37,972	8.1%
% change 09-10	2.4%	8.0%	4.2%	1.7%	2.9%	2.0%	3.9%	15.0%	3.1%	2.0%	13.5%		

Source: Metal Bulletin Research, WBMS

Supply Analysis

- UC Rusal sells a sizeable portion of its future production to a Chinese firm..
- ...but the economic rationale may be boosted by a political one
- Century Aluminium could restart Ravenswood if the price is right

Market Outlook

We have revised our supply and demand balance for 2009 on a raft of new data from our recent visit to China. Mainly on new production forecasts for China, but including a few minor smelter restarts/closures elsewhere in the world. Our balance for 2009 is now 1.6m tonnes, from 1.9m tonnes. We have also made

minor adjustments to the 2010 – 2012 balances. During this period UC Rusal will be selling about 280,000 tonnes per year of aluminium to a Chinese manufacturer of weapons and other manufactured goods. Elsewhere, Century Aluminium has suggested it could restart the idled Ravenswood smelter in West Virginia.

On new information from our recent visit to China we have lowered our 2009 market balance.

UC Rusal agrees to sell 1.68m tonnes to a Chinese general industry group

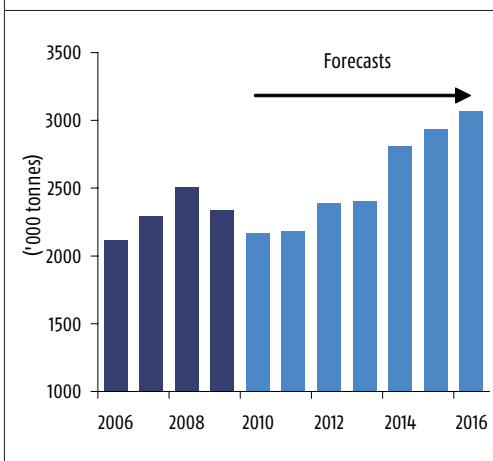
UC Rusal has recently signed a deal to provide 1.68m tonnes of aluminium between 2010 and 2016 to Norinco, a large Chinese industry group which manufactures vehicles and weapons. If the deal is a similar amount each year this will about 13% of UC Rusal's yearly production in 2010 and 9% in 2016. While this does fit into MBR's long term forecast of China being a net importer of aluminium, it is likely that there was political involvement in this deal given the importance of both companies in their respective countries political economies and both nation's involvement in the Shanghai Cooperation Organisation. The companies are still negotiating prices for the deal.

Century aluminium may restart Ravenswood, if price stays above \$2,000/tonne

Propping up the hopes of the Jackson County, WV economy, Century Aluminium suggested it could restart the shuttered Ravenswood, West Virginia smelter if aluminium prices stabilised above \$2,000/tonne. The smelter halted production in February. As the plants original capital expenditure has mostly be depreciated it would require a relatively small investment to restart operations and a relatively large return on that investment could be seen. However, there are several barriers to this happening. Firstly, given the vast amount of surplus stocks in the industry at present it is fairly uncertain that the aluminium will stay above \$2,000 for long enough to generate a return on that investment. Secondly, large scale projects will be coming online elsewhere in the world that will directly compete with this smelter in the next few years. Thirdly, the plant uses coal generated electricity and it may face ecopolitical challenges if it moves to restart. MBR has put the plant in its 'optimistic' supply scenario for a 2011 restart.

Aluminium production at UC Rusal's Siberian smelters, 2006 – 2016

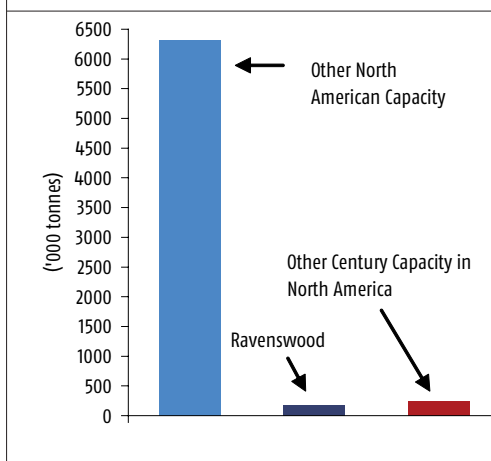
Production in Siberia will start growing again in 2012



Source: Metal Bulletin Research, IAI

2009 North American smelting capacity,

Even if Ravenswood were to restart, it would be insignificant to North American production



Source: Metal Bulletin Research, IAI

Global Primary Aluminium Production Estimates and Forecasts by Region

	Western World							Non-Western World					Global		
	Afr	N.Am	L.Am	Asia	W.Eur	Aus	Total	Daily	China	CIS	E.Eur	Daily	Total	Total	Daily
Monthly															
Mar 08	4.6	16.1	7.2	9.9	13.8	6.3	1797.8	58.0	33.7	12.8	1.4	48	1482.9	1,541	1845.6
Apr 08	4.5	16.1	7.3	10.2	14.0	6.4	1754.3	58.5	36.7	12.8	1.4	51	1525.5	1,584	1805.2
May 08	4.6	16.2	7.3	10.2	12.7	6.3	1774.8	57.3	37.6	12.7	1.4	52	1604.9	1,662	1826.6
Jun 08	4.6	16.0	7.3	10.3	13.1	6.3	1729.3	57.6	39.0	12.7	1.4	53	1594.5	1,652	1782.5
Jul 08	4.7	15.7	7.4	10.4	12.9	6.2	1776.8	57.3	37.7	12.8	1.4	52	1605.9	1,663	1828.6
Aug 08	4.7	15.7	7.4	10.3	13.1	6.3	1779.8	57.4	38.4	12.8	1.4	53	1630.6	1,688	1832.4
Sep 08	4.7	15.7	7.3	10.5	13.1	6.3	1726.6	57.55	38.5	12.9	1.4	53	1583.5	3,310	110.3
Oct 08	4.7	15.6	7.3	10.7	13.1	6.3	1790.0	57.74	35.7	12.9	1.4	50	1549.6	3,340	107.7
Nov 08	4.8	15.3	7.3	10.0	13.0	6.2	1697.5	56.58	33.0	12.9	1.0	47	1407.9	3,105	103.5
Dec 08	4.8	15.1	7.2	10.3	12.5	6.1	1732.7	55.89	30.5	12.9	1.4	45	1388.2	3,121	100.7
Jan 09	4.6	14.7	7.1	11.0	12.0	6.0	1715.2	55.33	28.9	12.3	1.1	42	1310.5	3,026	97.6
Feb 09	4.4	13.8	7.0	11.3	11.8	6.0	1519.4	54.26	31.0	12.0	1.2	44	1236.9	2,756	98.4
Mar 09	4.5	13.4	7.1	11.5	11.0	6.0	1657.1	53.46	28.5	11.8	1.1	41	1283.6	2,941	94.9
Apr 09	4.5	13.2	6.9	11.5	10.5	6.0	1578.6	52.62	29.7	11.4	1.1	42	1266.3	2,845	94.8
May 09	4.5	13.0	6.8	11.6	10.4	6.0	1622.1	52.33	31.7	11.3	1.1	44	1367.6	2,990	96.4
Jun 09	4.6	12.7	6.9	11.5	10.2	6.0	1560.6	52.02	34.3	11.3	1.1	47	1401.3	2,962	98.7
Jul 09	4.6	12.5	6.8	11.5	10.3	6.0	1608.1	51.87	35.1	11.3	1.1	47	1470.6	3,079	99.3
Aug 09	4.6	12.5	6.8	11.7	10.4	6.1	1614.6	52.08	37.2	11.3	1.1	50	1537.1	3,152	101.7
Sep 09	4.6	12.5	6.8	11.7	10.4	6.1	1563.1	52.10	40.3	11.4	1.1	53	1585.8	3,149	105.0
Quarterly															
Q3'07	455.0	1432.8	649.0	884.3	1181.3	582.0	5,184	56.35	3303.0	1152.9	125.3	49.8	4,581	9,765	106.1
Q4'07	456.0	1457.9	655.0	888.7	1211.3	584.0	5,253	57.10	3417.7	1176.2	125.0	51.3	4,719	9,972	108.4
Q1'08	428.0	1464.8	653.0	893.8	1248.5	575.0	5,263	58.48	3133.0	1163.3	125.5	48.1	4,422	9,685	106.5
Q2'08	416.0	1464.0	663.0	930.8	1209.6	575.0	5,258	57.78	3439.0	1160.7	125.2	51.4	4,725	9,983	109.1
Q3'08	432.0	1444.0	676.0	958.3	1196.9	576.0	5,283	57.43	3514.0	1179.5	126.5	52.4	4,820	10,103	109.8
Q4'08	439.0	1410.0	668.0	948.3	1184.8	570.0	5,220	56.74	3043.4	1187.5	114.8	47.2	4,346	9,566	104.0
Q1'09	404.0	1256.0	634.0	1012.3	1044.4	541.0	4,892	54.35	2647.0	1082.8	101.2	42.1	3,831	8,723	96.5
Q2'09	415.0	1179.0	624.0	1048.8	945.4	549.0	4,761	52.90	2905.0	1030.5	99.7	44.3	4,035	8,796	97.2
Q3'09f	426.0	1152.0	627.0	1070.3	953.5	557.0	4,786	53.18	3451.0	1042.5	100.0	50.5	4,593	9,379	103.7
Q4'09f	441.4	1154.5	668.7	1100.8	927.6	556.7	4,850	53.88	3828.3	1047.7	109.7	54.8	4,986	9,835	108.7
Q1'10f	464.5	1149.3	624.8	1107.4	914.4	553.2	4,814	53.49	3647.0	977.2	92.7	51.8	4,717	9,531	105.3
Q2'10f	469.7	1155.8	633.8	1174.0	906.5	551.1	4,891	54.34	3687.5	983.8	93.1	52.4	4,764	9,655	106.7
Q3'10f	474.9	1165.6	635.1	1258.3	921.8	551.1	5,007	55.63	3728.0	994.6	93.4	52.9	4,816	9,823	108.6
Q4'10f	474.9	1165.6	635.1	1309.5	923.7	551.1	5,060	56.22	3728.0	994.6	93.4	52.9	4,816	9,876	109.1
Annual															
2003	1,428	5,495	2,275	2,327	4,417	2,198	18,140	49.70	5,547	3,934	407	27.1	9,888	28,028	76.8
% change 02-03	4.1%	1.5%	2.1%	9.8%	4.2%	1.3%	3.4%		28.4%	4.4%	7.2%		16.8%	7.7%	
2004	1,711	5,109	2,356	2,585	4,667	2,246	18,674	51.02	6,589	4,105	464	30.5	11,158	29,832	81.5
% change 03-04	19.8%	-7.0%	3.6%	11.1%	5.7%	2.2%	2.9%		18.8%	4.3%	14.1%		12.8%	6.4%	
2005	1,752	5,375	2,391	2,944	4,741	2,252	19,454	53.30	7,743	4,168	475	33.9	12,386	31,841	87.2
% change 04-05	2.4%	5.2%	1.5%	13.9%	1.6%	0.3%	4.2%		17.5%	1.5%	2.4%		11.0%	6.7%	
2006	1,864	5,332	2,493	3,296	4,541	2,274	19,799	54.25	9,349	4,288	462	38.6	14,098	33,898	92.9
% change 05-06	6.4%	-0.8%	4.3%	12.0%	-4.2%	1.0%	1.8%		20.7%	2.9%	-2.8%		13.8%	6.5%	
2007	1,815	5,642	2,559	3,504	4,664	2,314	20,498	56.16	12,607	4,524	497	48.3	17,627	38,126	104.5
% change 06-07	-2.6%	5.8%	2.6%	6.3%	2.7%	1.8%	3.5%		34.8%	5.5%	7.6%		25.0%	12.5%	
2008	1,715	5,783	2,660	3,731	4,840	2,296	21,025	57.44	13,129	4,691	492	50	18,312	39,337	107
% change 07-08	-5.5%	2.5%	3.9%	6.5%	3.8%	-0.8%	2.6%		4.1%	3.7%	-1.0%		3.9%	3.2%	
2009 f	1,686	4,741	2,554	4,232	3,871	2,204	19,288	52.84	12,831	4,203	411	47.8	17,445	36,734	100.6
% change 08-09	-1.7%	-18.0%	-4.0%	13.4%	-20.0%	-4.0%	-8.3%		-2.3%	-10.4%	-16.5%		-4.7%	-6.6%	
2010 f	1,884	4,636	2,529	4,849	3,666	2,206	19,771	52.84	14,791	3,950	373	52.4	19,114	38,884	106.5
% change 09-10	11.7%	-2.2%	-1.0%	14.6%	-5.3%	0.1%	2.5%		15.3%	-6.0%	-9.3%		9.6%	5.9%	

Source: Metal Bulletin Research, IAI, WBMS

Notes: AFRICA: Cameroon, Egypt, Ghana, Mozambique, Nigeria, South Africa; N.AMERICA: Canada, USA; L.AMERICA: Argentina, Brazil, Suriname, Trinidad & Tobago, Mexico, Venezuela; ASIA: Bahrain, India, Indonesia, Iran, Japan, Oman, Qatar, Turkey, UAE (Dubai); WESTERN EUROPE: Bosnia & Herzegovina, France, Germany, Greece, Iceland, Italy, Montenegro, Netherlands, Norway, Slovenia, Spain, Sweden, Switzerland, UK; AUSTRALASIA: Australia, New Zealand; CIS: Azerbaijan, Russia, Tajikistan, Ukraine; EASTERN EUROPE: Hungary, Poland, Romania, Slovakia. (2) Individual region daily numbers are in '000mt/day, western world and non-western world monthly total, quarterly and annual figures are in '000mt

Alumina Analysis

- Nalco tender fetches just over US\$300/tonne
- Spot price drifts downwards on restarts
- Guinean bauxite exports tumble

Market Outlook

The signals coming from the market on alumina pricing remain positive, with Nalco's October tender fetching a price that was 6% higher than its previous one in August. The pricing of a longer-term contract also surpassed market expectations, but this deal may be something as a one off. More significantly, the current upward

momentum in pricing is being limited by alumina refiners restarting idled capacity. As such, free market spot prices edged downwards during the last week of October, with the Pacific market proving weaker than the Atlantic. Meanwhile, the bauxite prices may come under pressure as supplies tighten due to escalating political instability in Guinea.

Nalco tender breaks US\$300/tonne...

During late October, Nalco sold 30,000 tonnes of alumina at \$300.50/tonne FOB for November shipment. The material was purchased by Hong Kong's Hongfan International. Nalco's previous alumina tender fetched \$283.69/tonne in August.

...while 2010 contract beats market expectations...

Separately, Nalco finalised a longer-term contract with Alaska Metals for the sale of 270,000 tonnes of alumina during 2010 at 14.95% of the LME aluminium price FOB. The price will be calculated as a percentage of the average cash and three-month LME aluminium prices in the month before delivery. The deal equated to a price of US\$284/tonne on the day it was struck.

...but price do not reflect market fundamentals

Glencore made the second-highest bid (14.55%), while Trafigura offered 14.52%. In October 2008, NALCO sold 240,000 tonnes of alumina in a long term contract at 13.29% of the LME aluminium price. The market consensus had been for a deal at around 14.5%, leading some to conclude that the higher price reflected the winning party's greater need for the material.

Spot price range edges downwards as production ramps up

The spot price range on the free market narrowed from US\$290–325/tonne to US\$295–315/tonne during late October, on limited business. The previous range reflected a fractured market, with Atlantic alumina fetching a higher price than material of Pacific origin. Prices have eased as restart volume begins to hit the market, with two deals for November and December delivery being concluded at \$300/tonne.

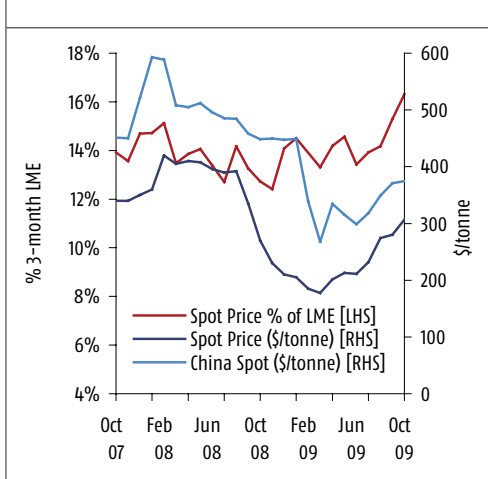
Guinean bauxite shipments to fall...

Exports from the Guinean port of Kamsar may fall below 10m tonnes in 2010, almost a third lower than the figure for 2008. Guinomar holds the right to ship up to 50% of all bauxite shipments from Compagnie des Bauxites de Guinee (CBG). This is the first time ever that exports of Bauxite from Kamsar have fallen.

...as industry foreign workers leave

Meanwhile, around half the 30 expatriate workers at the world's largest bauxite exporter, the UC Rusal-owned CBG, have left Guinea due to growing instability there, according to a source within the company. However, the same source was adamant that this will not affect production.

Australian spot job, China duty paid spot and Australian spot as % of LME 3-month,
Alumina hits a multi-year high as a % of LME spot



Source: Metal Bulletin Research

Global Metallurgical Grade Alumina (MGA) Production ('000 tonnes)

	Western World							Non-Western World					Global		
	Afr	N.Am	L.Am	Asia	W.Eur	Aus	Total	Daily	China	CIS	E.Eur	Total	Daily	Total	Daily
QUARTERLY ('000t)															
Q1'07	102	1,264	3,671	829	1,253	4,496	11,615	126.3	4,199	1,474	65	5,738	62.4	17,353	188.6
Q2'07	133	1,289	3,735	875	1,223	4,683	11,938	129.8	4,798	1,489	66	6,353	69.1	18,291	198.8
Q3'07	154	1,320	3,715	902	1,279	4,820	12,190	132.5	4,817	1,498	67	6,382	69.4	18,572	201.9
Q4'07	137	1,458	3,792	921	1,356	4,988	12,652	137.5	5,643	1,483	67	7,193	78.2	19,845	215.7
Q1'08	140	1,369	3,765	967	1,294	4,787	12,322	133.9	5,044	1,370	0	6,414	69.7	18,736	203.7
Q2'08	133	1,336	3,716	996	1,289	4,815	12,285	133.5	5,598	1,370	0	6,968	75.7	19,253	209.3
Q3'08	168	1,266	3,869	1,025	1,274	4,832	12,434	135.1	6,041	1,385	0	7,426	80.7	19,860	215.9
Q4'08	154	1,306	4,239	1,036	1,232	4,982	12,949	140.7	5,098	1,375	0	6,473	70.4	19,421	211.1
Q1'09	158	873	3,744	1,144	940	4,800	11,658	126.7	4,755	1,355	0	6,110	66.4	17,768	193.1
Q2'09	160	574	3,037	1,156	790	4,948	10,665	115.9	5,505	1,370	0	6,875	74.7	17,540	190.7
Q3'09f	124	1,055	3,022	1,169	830	4,929	11,130	121.0	6,997	1,385	0	8,382	91.1	19,511	212.1
Q4'09f	156	1,175	3,022	1,169	876	5,014	11,412	124.0	7,067	1,385	0	8,452	91.9	19,863	215.9
Q1'10f	156	857	2,755	1,394	966	4,871	10,998	119.5	6,664	1,425	109	8,198	89.1	19,196	208.7
Q2'10f	156	866	2,774	1,409	971	4,894	11,070	120.3	6,733	1,441	110	8,284	90.0	19,354	210.4
ANNUAL ('000t)															
2006	530	5,930	14,667	3,232	4,998	18,341	47,698	131	12,918	6,012	632	19,563	54	67,260	184
% change 05-06	-28.0%	-0.3%	146.7%	-1.7%	1.4%	3.7%	23.8%		71.8%	0.7%	-14.5%	37.5%		27.5%	
2007	526	5,331	14,913	3,527	5,111	18,987	48,395	133	19,457	5,944	265	25,666	70	74,061	203
% change 06-07	-0.8%	-10.1%	1.7%	9.2%	2.3%	3.5%	1.5%		50.6%	-1.1%	-58.1%	31.2%		10.1%	
2008	595	5,277	15,589	4,024	5,089	19,416	49,990	137	21,781	5,500	0	27,281	75	77,271	212
% change 07-08	13.1%	-1.0%	4.5%	14.1%	-0.4%	2.3%	3.3%		11.9%	-7.5%	-100.0%	6.3%		4.3%	
2009 f	552	3,677	12,826	4,638	3,436	19,691	44,819	123	24,323	5,495	0	29,818	82	74,637	204
% change 08-09	-7.2%	-30.3%	-17.7%	15.3%	-32.5%	1.4%	-10.3%		11.7%	-0.1%	0.0%	9.3%		-3.4%	
2010 f	634	3,475	11,115	5,652	3,687	19,600	44,163	121	27,001	5,780	441	33,222	91	77,385	212
% change 09-10	14.9%	-5.5%	-13.3%	21.9%	7.3%	-0.5%	-1.5%		11.0%	5.2%	0.0%	11.4%		3.7%	

Source: Metal Bulletin Research, IAI

Notes: AFRICA: Guinea; N.AMERICA: USA, Canada; L.AMERICA: Brazil, Jamaica, Suriname, US Virgin Isles, Venezuela; ASIA: India, Iran, Turkey

WESTERN EUROPE: Bosnia & Herzegovina, France, Germany, Greece, Italy, Slovenia, Spain, Montenegro; AUSTRALASIA: Australia;

CIS: Azerbaijan, Russia, Tajikistan, Ukraine; EASTERN EUROPE: Hungary, Poland, Romania, Slovakia.

Chinese, Western World and Global Alumina Balances ('000 tonnes)

	China			Western World					World			Spot Prices			
	MGA Prod	MGA Cons	Implied Import Req'ment	Actual Imports	Implied Chinese Stock Change	Spot (3) Rmb/t	MGA Prod	MGA Cons	Net Exp. To FCPE (2)	Market Balance	MGA Prod	MGA Cons	Market Balance	Required Oper. Rate (1)	as % of LME 3-m
QUARTERLY															
Q1'06	2,590	4,079	1,489	1,703	214		11,540	9,420	2,386	-265	15,764	15,816	-51	95.3%	615 25.2%
Q2'06	2,960	4,455	1,495	1,629	134		11,921	9,554	2,271	96	16,572	16,342	230	93.9%	575 22.3%
Q3'06	3,308	4,792	1,484	1,930	446		12,104	9,628	2,642	-166	17,070	16,790	280	93.2%	330 13.5%
Q4'06	4,060	5,186	1,126	1,649	524		12,132	9,780	2,372	-20	17,852	17,348	504	92.6%	228 8.5%
Q1'07	4,199	5,661	1,462	1,466	4	3,485	11,615	9,656	2,303	-344	17,353	17,693	-340	93.9%	356 12.9%
Q2'07	4,798	5,993	1,195	1,191	-4	3,880	11,938	9,848	2,094	-3	18,291	18,299	-8	94.8%	360 13.0%
Q3'07	4,817	6,540	1,723	1,293	-430	3,599	12,190	10,050	2,259	-118	18,572	19,121	-549	96.3%	347 13.3%
Q4'07	5,643	6,767	1,124	1,175	51	3,532	12,652	10,183	2,201	268	19,845	19,526	319	96.6%	320 13.7%
Q1'08	5,044	6,203	1,159	1,156	-3	4,043	12,322	10,203	2,338	-218	18,736	18,958	-222	91.0%	385 14.2%
Q2'08	5,598	6,809	1,211	1,236	25	3,515	12,285	10,194	2,412	-321	19,253	19,549	-296	92.2%	407 13.5%
Q3'08	6,041	6,958	917	1,123	206	3,263	12,434	10,242	2,324	-132	19,860	19,785	75	90.3%	384 13.1%
Q4'08	5,098	6,026	928	1,071	143	3,075	12,949	10,119	2,273	557	19,421	18,722	700	85.3%	261 12.5%
Q1'09	4,755	5,241	486	1,026	540	2,410	11,638	9,482	2,058	98	17,748	17,110	638	74.4%	189 13.6%
Q2'09	5,505	5,752	247	1,653	1,406	2,163	10,640	9,229	2,513	-1,102	17,515	17,211	304	74.4%	209 13.7%
Q3'09f	6,997	7,580	583	1,600	1,017	2,300	11,130	9,270	2,438	-578	19,511	19,073	438	80.5%	250 14.3%
Q4'09f	7,067	7,812	745	1,600	855	2,400	11,412	9,274	2,449	-311	19,863	19,319	544	80.5%	300 14.7%
ANNUAL															
2006	12,918	18,511	5,593	6,912	1,319		47,698	38,381	9,670	-354	67,260	66,296	964	93.9%	447 17.2%
% ch. 05-06	71.8%	20.7%					4.7%	1.8%	1.8%		12.5%	6.5%			
2007	19,457	24,961	5,504	5,125	-380	3,624	48,395	39,736	8,857	-198	74,061	74,639	-577	95.5%	352 13.2%
% ch. 06-07	50.6%	34.8%					1.5%	3.5%	-8.4%		10.1%	12.6%			
2008	21,781	25,996	4,215	4,586	371	3,474	49,990	40,757	9,347	-114	77,271	77,014	257	89.7%	352 13.4%
% ch. 07-08	11.9%	4.1%					3.3%	2.6%	5.5%		4.3%	3.2%			
2009f (4)	24,323	26,385	2,062	5,879	3,818	2,318	44,819	37,255	9,458	-1,894	74,637	72,713	1,924	77.2%	227 14.1%
% ch. 08-09	11.7%	1.5%					-10.3%	-8.6%	1.2%		-3.4%	-5.6%			

Source: Metal Bulletin Research, IAI

Notes: (1) The required operating rate is defined as the average utilisation rate required to balance global supply and demand. (2) Former Centrally Planned Economies

(3) Earliest data is from 2007

Demand Indicators

Selected Demand Indicators

	2007	2008	Q3 08	Q4 08	Q1 09	Q2 09	April	May	June	July	August
Asian Indicators											
Japanese industrial production ⁴	107.6	103.0	102.0	95.7	71.3	72.0	72.2	71.9	81.3	82.6	84.1
Japan passenger vehicle prod. (000s)	9,945	9,886	2,483	2,226	1,366	1,484	416.0	470.0	597.9	643.6	493.7
Japan commercial vehicle prod. (000s)	1,652	1,648	430	367	244	228	69.6	72.2	86.0	98.7	78.1
Japanese construction activity index	85.4	86.3	84.9	87.2	86.7	85.7	87.3	86.0	83.8	81.0	79.7
S.Korean total vehicle prod. (000s)	4,454	3,823	757	989	688	842	269.3	256.3	315.9	310.3	232.6
Indian vehicle production (000s)	10,878	11,119	3,078	2,471	2,777	3,070	989.1	1,044.1	1,036.7	1,130.2	1,133.8
Chinese vehicle production (000s)	-	-	-	-	2,696	3,533	1,181.2	1,147.6	1,204.3	1,136.9	1,133.8
Chinese construction sector loans (6-mma) ¹	13.9%	-3.0%	-8.7%	-3.1%	0.9%	4.3%	3.26%	4.19%	5.40%	5.82%	6.18%
Chinese construction survey ²	139.9	127.3	128.6	107	105.6	115.9	-	-	-	-	-
Chinese real estate index	103.9	102.2	101.8	98.2	95.2	95.8	94.8	95.9	96.6	98.0	100.1
American Indicators											
US Leading Economic Indicator Index			100.9	99.4	98.2	100.0	98.9	100.2	101.0	101.9	102.5
ISM manufacturing index ⁴	51.1	45.5	47.4	36.1	35.9	42.6	40.1	42.8	44.8	48.9	52.9
US industrial production	113.4	110.1	108.8	104.5	99.1	96.2	97.1	95.9	95.5	96.7	97.4
US car production (000's)	3,914	3,782	981	820	409	331	157.9	143.7	173.1	147.5	225.8
US truck production (000's)*	6,846	4,899	1,025	973	765	673	290.4	215.8	166.6	225.0	327.7
US residential house starts (000's) ¹	16,127	10,805	2,654	1,982	1,583	1,620	479.0	551.0	590.0	589.0	598.0
US non-residential spending (\$bls) ¹	4,185	4,920	1,260	1,244	1,197	1,199	401.5	400.0	397.9	384.6	372.6
US building permits issued (000's)	16,438	10,555	2,599	1,892	1,592	1,586	498.0	518.0	570.0	564.0	580.0
Canadian car production (000's)	1,318	1,187	295	282	158	138	72.8	56.0	65.2	51.1	79.4
Canadian truck production (000's)	1,254	865	192	154	129	127	56.0	35.2	35.8	49.0	62.3
Canadian house starts (000's) ¹	2,732	2,552	631	557	419	384	118.5	127.4	137.8	134.2	150.4
Mexican vehicle production (000's)	2,234	2,135		543	377	247	101.1	39.6	106.1	116.1	137.4
Brazilian industrial production	121.8	125.5	135.9	119.9	101.3	112.0	106.4	114.0	115.5	123.0	125.4
Brazilian vehicle production (000's)	2,974	3,220	930	591	664	807	253.7	268.9	284.4	282.0	295.0
European Indicators											
Euro-zone manufacturing PMI	54.2	46.5	46.7	36.9	40.0	34.0	36.8	40.7	42.6	45.7	49.9
EU27 industrial production ⁴	108.4	105.7	105.1	98.9	92.1	89.9	90.0	90.0	89.8	89.8	89.9
German industrial production ⁴	111.2	111.9	112.8	107.2	89.4	91.3	89.2	89.2	95.6	96.6	85.3
German total vehicle production (000's)	6,199	6,056	1,457	1,278	1,050	1,279	397.4	384.6	497.1	430.6	341.5
German construction orders index	69.6	73.0	70.6	78.4	76.5	84.9	83.2	85.0	86.7	87.0	-
French industrial production ⁴	102.4	100.1	93.8	98.3	89.1	85.5	84.2	79.3	92.9	89.2	66.2
French total vehicle production (000's)	3,150	2,509	549	581	555	506	168.3	140.0	197.7	-	-
French housing starts (000's)	432	333	25.4	26.8	-	-	-	-	-	-	-
UK industrial production ⁴	100.7	97.5	95.3	96.1	87.2	86.1	86.6	83.6	88.2	86.6	86.8
UK total vehicle production (000's)	1,616	1,654	408	301	205	205	75.9	72.4	100.3	116.1	61.6
Spanish industrial production	106.2	98.6	93.1	91	83	83	79.8	81.9	86.0	91.4	61.5
Spanish vehicle production (000's)	2,854	2,483	513.7	452.2	453.1	564.4	186.7	181.6	196.1	213.3	77.4
Spanish house starts (000's) ³	593.3	359.6	76.0	81.8	47.1	49.3	16.7	17.0	15.7	-	-
Italian industrial production	106.0	102.7	94.3	96.2	85.9	85.5	83.4	85.9	87.3	97.6	-
Italian vehicle production (000's)	1,415	1,023	217.6	172.6	187.6	233.8	78.0	80.7	75.1	85.4	26.3
Russian industrial production	115.5	117.9	120.1	116.8	99.7	100.2	100.1	98.0	102.4	107.2	104.0
Russian Passenger Car Production (000's)	-	1,470	402	362	123	166	60.0	47.3	58.7	60.4	19.0
African and Middle Eastern Indicators											
South African construction starts (000's)	81,437	76,784	20,265	16,313	13,734	17,642	6,321.5	6,496.4	4,824.3	4,047.7	-
South African vehicle sales (000's)	612.7	489.0	123.4	103.2	93.3	79.9	24.1	25.8	30.0	30.7	29.7
Turkish industrial production	115.2	114.3	115.5	104.9	89.7	103.2	97.4	102.3	109.9	110.3	104.2
Turkish vehicle production (000's)	1,133.0	1,171.9	261.9	181.6	136.4	254.5	76.5	88.1	30.0	88.2	50.4
Turkish construction permits issued	203,618	176,656	54,417	70,156	16,625	33,411	-	-	-	-	-
Lebanese construction permits issued (sq m)	9,044	11,020	3,214	2,721	2,264	77,124	972.0	1,006.0	2,028.0	557.0	863.0
Jordan construction permits	24,918	21,649	5,220	5,242	6,871	7,432	2,573.0	2,553.0	2,306.0	2,125.0	2,135.0
Bahrain construction permits	9,830	10,843	2,567	2,529	2,962	2,787	-	-	-	-	-
Israeli industrial production	119.0	127.3	129.3	122.1	120.7	115.7	102.5	116.7	127.8	117.6	-
Israeli house starts	9,883	10,524	2,703	2,501	2,895	2,636	586.0	763.0	990.0	970.0	-
Australasia Indicators											
Australia construction orders index	165.7	133.7	126.9	117.7	94.6	125.7	36.8	52.2	36.7	37.8	33.5
New Zealand building permits	25,590	18,456	4,398	3,468	2,962	3,320	1,009.0	1,212.0	1,099.0	1,148.0	1,168.0

Sources: Metal Bulletin Research & Official Trade Statistics, AA, Census Bureau, Wards, Appliance Magazine, JAMA, S. Korea NSO, China NBS, PBOC, METI, Eurostat, INSEE, Bundesbank, SMMT, Chinese Statistics Bureau & Various

Notes: * denotes total heavy and light truck production (1) 6-month moving average % change year-on-year (RMB bn.) (2) >100 indicates net positive sentiment, <100 indicates net negative sentiment (quarterly) (3) Spain's 2007 annual figure is only for the months April - December. (4) These indices have been discontinued from our normal source, so may differ from previous reports. If backdata is required please contact the editor.

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