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September 21, 2010

This report is priced as of market close September 20, 2010, EDT.

All values in U.S. dollars unless otherwise noted.

For Required Non-U.S. Analyst and Conflicts Disclosures, please see page 21.

	New	Old	% Chg.
2010E	\$3.15	\$3.10	2%
2011E	\$3.00	n/c	n/c
2012E	\$3.25	n/c	n/c
2013E	\$3.75	n/c	n/c
2014E	\$3.75	n/c	n/c
Long-term (2010\$)	\$2.00	n/c	n/c

Note: Price changes were originally published in our Sept 2, 2010, research comment "Q4/2010 Commodity Price Revisions & Outlook."

Metal Prospects

Copper Market Outlook — Fourth Quarter 2010

Demand

• While China remains the key driver of copper demand, demand outside of China has rebounded strongly in 2010, offsetting slower growth in China. The key question now is how much might Chinese demand growth slow in the second half of 2010, and will growth in the rest of the world be sufficient once restocking has run its course to offset any slowing and prevent the market from moving back into surplus. We forecast a rebound of 7.0% in 2010, 5.7% in 2011 and 5.6% in 2012, followed by trend growth of 3.8% in 2013 and 2014.

Supply

• Our analysis suggests that 2009 refinery capacity utilization rates fell to levels not seen since the early 1980s. Operating rates fell due to a shortage of feed including scrap, collapsing demand and an oversupplied sulphuric acid market. We expect the decline in utilization rates in 2009 to give way to a recovery beginning in 2010. However, we do not expect refinery capacity to return to full effective utilization rates due to a shortage of concentrate. Mine capacity remains the bottleneck. We forecast a rebound in global refined copper production of 4.7% in 2010, 6.5% in 2011 and 4.7% in 2012.

Market Balance and Inventories

Restricted mine supply and growing offtake have brought the market back into deficit in the
first eight months of 2010 following two years of surpluses. Our forecast rebound in
demand in 2010 through 2012 should result in a balanced to deficit market. Growing
deficits in 2013 and beyond are forecast to reduce inventories below the critical level and
result in record high annual average prices in the latter part of our forecast period.

Price Forecasts

• The copper market remains tighter than the other base metals. There is little excess mine capacity and utilization rates remain high, supporting strong pricing. However, inventories are elevated and the historical inventory price relationship and our cost analysis point to downside risk in the near term. We expect our forecast balanced to deficit markets to support strong pricing in 2010 through 2012. Growing deficits in 2013 and beyond are expected to push prices to historically high levels. We forecast an average price of \$3.15/lb in 2010, \$3.00/lb in 2011, \$3.25/lb in 2012 and \$3.75/lb in 2013 and 2014. Our long-term price forecast is \$2.00/lb in 2010 US\$.

Risks to Forecast

- **Investment Demand** Investment demand remains a key driver of commodity prices, leaving prices vulnerable to increased volatility. The emergence of physical ETF's could have a positive influence on prices.
- **Economic Growth** Our forecast 2010 rebound in demand is consistent with performance year-to-date. If sustained growth in the developed world is more muted the market could move into surplus in the second half of 2010.
- China A slowing in Chinese demand growth in response to government measures to cool economic growth in the absence of a sustained recovery in demand outside China could lead to renewed demand weakness.
- **Supply** A higher level of production disruptions and hence lower operating rates than we are currently assuming could limit supply to levels below our current forecasts.

Copper Market Outlook September 21, 2010

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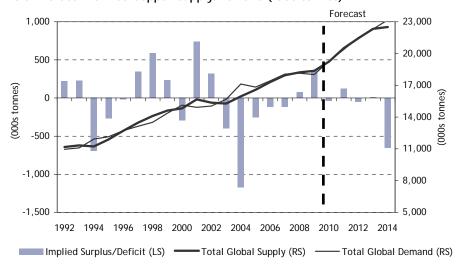
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Exhibit 1: Refined Copper Supply/Demand Balance

		2004	2005	2006	2007	2008	2009	2010E	2011E	2012E	2013E	2014E
Supply	'000 tonnes	15,948	16,582	17,306	17,945	18,222	18,377	19,244	20,499	21,459	22,329	22,518
Inventory Movements	'000 tonnes	-	-	-	-	-	-	-	-	-	-	-
Base Case Supply	'000 tonnes	15,948	16,582	17,306	17,945	18,222	18,377	19,244	20,499	21,459	22,329	22,518
% change		4.4%	4.0%	4.4%	3.7%	1.5%	0.9%	4.7%	6.5%	4.7%	4.1%	0.8%
Total Global Demand	'000 tonnes	17,121	16,834	17,421	18,062	18,147	18,016	19,283	20,373	21,510	22,319	23,172
% change		9.2%	-1.7%	3.5%	3.7%	0.5%	-0.7%	7.0%	5.7%	5.6%	3.8%	3.8%
Implied Surplus / (Deficit)	'000 tonnes	(1,173)	(253)	(115)	(116)	75	361	(39)	126	(51)	11	(654)
Total Reported Stocks	'000 tonnes	894	846	1,091	1,017	1,163	1,418	1,379	1,505	1,454	1,465	810
Weeks of Consumption (Western World)		3.7	3.7	4.6	4.4	5.1	7.2	6.4	6.8	6.4	6.3	3.4
Nominal LME Cash Price	US\$/lb	\$1.30	\$1.67	\$3.05	\$3.23	\$3.15	\$2.34	\$3.15	\$3.00	\$3.25	\$3.75	\$2.21
Long Term Price (2015 and beyond) 2010 US\$	US\$/lb											\$2.00

Source: RBC Capital Markets estimates, Brook Hunt, ICSG

Exhibit 2: Global Refined Copper Supply/Demand ('000 tonnes)

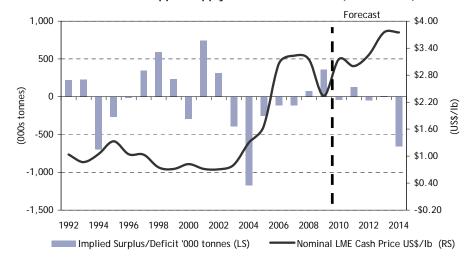


Source: RBC Capital Markets estimates, Bloomberg, Brook Hunt, ICSG

After a 0.7% decline in 2009, we forecast a rebound in global copper demand of 7.0% in 2010, 5.7% in 2011 and 5.6% in 2012.

While China remains the key driver of copper demand, demand outside of China has rebounded strongly in 2010, offsetting slower growth in China. In 2009, Western World demand fell by 13.0% while Chinese demand increased 33.7%. We forecast a rebound in Western World demand of 9.0% in 2010 and growth of only 4% in China. Our forecast is consistent with performance year-todate. The key risks to our forecast are the degree of slowing in Chinese demand in the second half of 2010 and the strength of demand growth outside of China once restocking comes to an end.

Exhibit 3: Global Refined Copper Supply/Demand and Prices ('000 tonnes)



Source: RBC Capital Markets estimates, Bloomberg, Brook Hunt, ICSG

Restricted mine supply and growing offtake have brought the market back into deficit in the first eight months of 2010 following two years of surpluses.

We expect refined production to remain constrained by mine supply and inventories to decline on trend throughout our forecast period, supporting historically strong pricing. Our forecast rebound in demand in 2010 through 2012 should result in a balanced to deficit market. Growing deficits in 2013 and beyond are forecast to reduce inventories below the critical level and result in record high annual average prices in the latter part of our forecast period.



Exhibit 4: Summary of Production Changes (Compared to 2009A; '000 tonnes)

Change	Туре	2010E	2011E	2012E	2013E	2014E
Increases	Concentrate	791	1,462	2,082	2,564	3,081
	SX/EW	394	679	787	893	906
	Sub-Total	1,185	2,141	2,870	3,457	3,987
New Projects	Concentrate - total	35	82	208	442	601
	SX/EW - total	-	45	145	245	260
	Sub-Total	35	127	353	687	861
	25% of Projects	9	32	88	172	215
Reductions	Concentrate	(330)	(678)	(681)	(931)	(1,156)
	SX/EW	(156)	(163)	(211)	(325)	(543)
	Sub-Total	(486)	(841)	(892)	(1,256)	(1,699)
Net Change	Concentrate	470	804	1,453	1,744	2,075
	SX/EW	237	528	613	629	428
	TOTAL	707	1,332	2,066	2,372	2,503

We forecast a net increase in supply – after taking into account cutbacks and closures at existing operations – of 2.5 million tonnes by 2014.

The majority of new supply is expected to come from existing operations and projects that have already been approved.

Source: RBC Capital Markets estimates, Brook Hunt, ICSG

Exhibit 5: Production Increases at Existing Operations/Approved Projects (Compared to 2009A; '000 tonnes)

Chile Andacollo 92 99 80 7 Chile Caserones - - - - 15 Chile Collahuasi - - 100 10 Chile El Teniente 20 30 65 7 Chile Escondida 3 - - 18 Chile Esperanza - 202 202 202 Chile Los Bronces - - 256 25 Chile Los Pelambres 86 86 86 86 86 Mongolia Oyu Tolgoi -	ountry	Mine	2010E	2011E	2012E	2013E	2014E
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Chile Collahuasi - - 100 10 Chile El Teniente 20 30 65 7 Chile Escondida 3 - - 18 Chile Esperanza - 202 202 202 Chile Los Bronces - - 256 25 Chile Los Pelambres 86<	ile	Andacollo	92	99	80	75	70
Chile El Teniente 20 30 65 7 Chile Escondida 3 - - 18 Chile Esperanza - 202 202 202 Chile Los Bronces - - 256 25 Chile Los Pelambres 86 86 86 86 86 Mongolia Oyu Tolgoi - - - - 6 Peru Antamina - - 94 59 Peru Antapaccay - - - - - Peru Las Bambas - - - - - - Other < 50ktpa	ile	Caserones	-	-	-	150	150
Chile Escondida 3 - - 18 Chile Esperanza - 202 202 202 Chile Los Bronces - - - 256 25 Chile Los Pelambres 86 86 86 86 86 86 Mongolia Oyu Tolgoi - - - - 6 6 Peru Antamina - - 94 5 9 98 10	ile	Collahuasi	-	-	100	100	100
Chile Esperanza - 202 202 202 Chile Los Bronces - - - 256 25 Chile Los Pelambres 86 86 86 86 86 Mongolia Oyu Tolgoi - - - - - 6 Peru Antamina - - - 94 5 9 Peru Antapaccay -	ile	El Teniente	20	30	65	75	75
Chile Los Bronces - - 256 25 Chile Los Pelambres 86 <td< td=""><td>ile</td><td>Escondida</td><td>3</td><td>-</td><td>-</td><td>183</td><td>143</td></td<>	ile	Escondida	3	-	-	183	143
Chile Los Pelambres 86 80	ile	Esperanza	-	202	202	202	202
Mongolia Oyu Tolgoi -	ile	Los Bronces	-	-	256	256	256
Peru Antamina - - 94 92 Peru Antapaccay - - - 10 10 Peru Las Bambas -	ile	Los Pelambres	86	86	86	86	86
Peru Antapaccay - - 10 10 Peru Las Bambas -<	ongolia	Oyu Tolgoi	-	-	-	60	150
Peru Las Bambas - <	ru	Antamina	-	-	94	94	94
Other < 50ktpa 590 981 1,062 1,052 Concentrate Sub-Total 791 1,462 2,082 2,562 Chile Regalito 70 80 80 80 Congo DR Tenke Fungurume 18 37 52 9 USA Morenci - - 138 13	ru	Antapaccay	-	-	10	100	160
Concentrate Sub-Total 791 1,462 2,082 2,56 Chile Regalito 70 80 80 8 Congo DR Tenke Fungurume 18 37 52 9 USA Morenci - - 138 13	ru	Las Bambas	-	-	-	-	210
Chile Regalito 70 80 80 8 Congo DR Tenke Fungurume 18 37 52 9 USA Morenci - - 138 13	her	< 50ktpa	590	981	1,062	1,056	1,131
Congo DR Tenke Fungurume 18 37 52 52 USA Morenci - - - 138 13	ncentrate Su	b-Total	791	1,462	2,082	2,564	3,081
USA Morenci 138 13	ile	Regalito	70	80	80	80	80
USA Morenci 138 13	ngo DR	Tenke Fungurume	18	37	52	96	96
Zambia Baluba 30 60 60 6	A		-	-	138	138	138
	mbia	Baluba	30	60	60	60	60
Other < 75ktpa 276 503 457 51	her	< 75ktpa	276	503	457	519	532
SX Sub-Total 394 679 787 89	Sub-Total		394	679	787	893	906

Our analysis points to continued increases in capacity throughout our forecast period.

By 2014, we expect that production increases at existing operations and previously approved new projects should contribute 4.0 million tonnes of new supply relative to 2009.

While the number of very large projects is limited, there are a large number of smaller projects.

Source: RBC Capital Markets estimates, Brook Hunt, ICSG

Exhibit 6: Production Increases from Potential New Projects (Compared to 2009A; '000 tonnes)

Country	Mine	2010E	2011E	2012E	2013E	2014E
Australia	Cadia East Extension	-	38	48	58	60
Peru	Toromocho	-	-	-	100	210
Australia	Kanmantoo	8	14	16	19	16
Concentrate Sub-	Total	35	82	208	442	601
Chile	Collahuasi 130-170kt/d Exp	-	10	20	50	60
Congo DR	Kinsevere-Nambulwa	-	35	55	60	60
Mexico	Boleo	-	-	25	50	50
Zambia	Muliashi	-	-	10	50	55
Brazil	One One Eight	-	-	-	-	-
SX-EW Sub-Total			45	145	245	260
Total Potential Pr	rojects	35	127	353	687	861
Base Case Supply	- Demand = 25% of Potential	9	32	88	172	215

Source: RBC Capital Markets estimates, Brook Hunt, ICSG

Our forecast makes provision for new supply from some projects that have yet to be approved. In

aggregate, these projects could contribute at most 0.9 million tonnes of new supply by 2014.

Our base case supply/demand balance assumes that only 25% of this potential – or 215,000 tonnes – should ultimately come on stream within this timeframe.

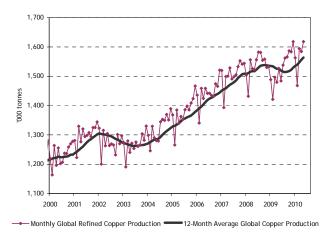
Exhibit 7: Production Reductions at Existing Operations (Compared to 2009A; '000 tonnes)

Country	Mine	2010E	2011E	2012E	2013E	2014E
Australia	Ernest Henry	=	-	-	(65)	(65)
Chile	Escondida	-	(77)	(2)	-	-
Indonesia	PT Freeport Indonesia	-	(98)	(98)	(49)	(49)
Peru	Tintaya	-	-	-	(80)	(80)
Other	< 50 ktpa	(330)	(503)	(581)	(737)	(962)
Concentrate	Sub-Total	(330)	(678)	(681)	(931)	(1,156)
0.11					(E)	(05)
Chile	Codelco Hiro Sur	-	-	-	(5)	(85)
Chile	Radomiro Tomic	(12)	(29)	(46)	(61)	(92)
Other	< 50 ktpa	(144)	(134)	(165)	(259)	(366)
SX-EW Sub-T	otal	(156)	(163)	(211)	(325)	(543)

Source: RBC Capital Markets estimates, Brook Hunt, ICSG

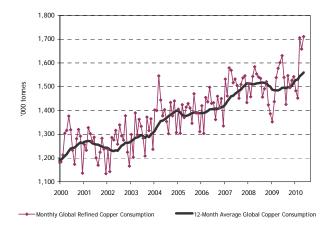
Production reductions mainly reflect the impact of declining grades on mature operations with very few closures. September 21, 2010 Copper Market Outlook

Exhibit 8: Refined Copper Production (Monthly & 12-Month Moving Average)



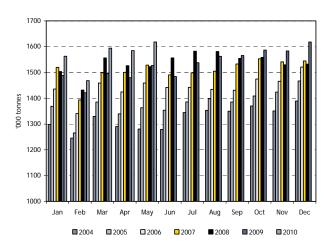
Source: RBC Capital Markets, ICSG

Exhibit 10: Refined Copper Consumption (Monthly & 12-Month Moving Average)



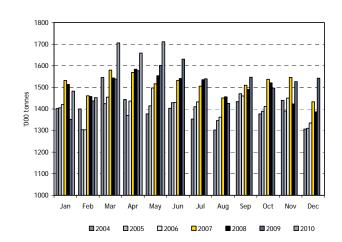
Source: RBC Capital Markets, ICSG

Exhibit 9: Refined Copper Production (Monthly)



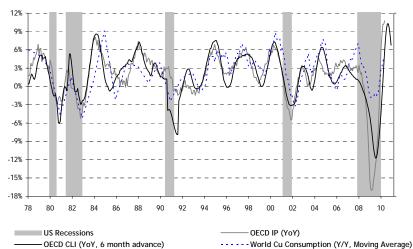
Source: RBC Capital Markets, ICSG

Exhibit 11: Refined Copper Consumption (Monthly)



Source: RBC Capital Markets, ICSG

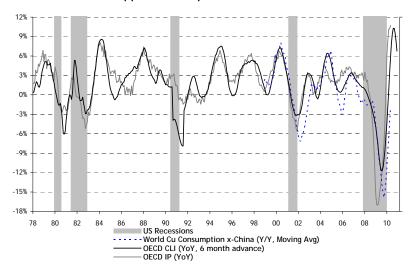
Exhibit 12: World Copper Consumption and Economic Growth



After rebounding strongly, global economic leading indicators have begun to decline pointing to the possibility of a slowing in economic and demand growth during the next six to 12 months.

Source: RBC Capital Markets estimates, OECD, Brook Hunt

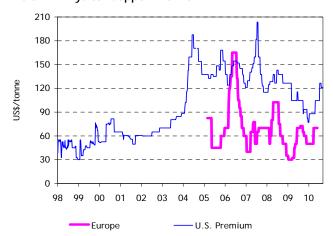
Exhibit 13: World Copper Consumption ex-China and Economic Growth



China has so far been the main driver of the rebound in copper demand, although demand outside of China has begun to pick up also.

Source: RBC Capital Markets estimates, OECD, Brook Hunt

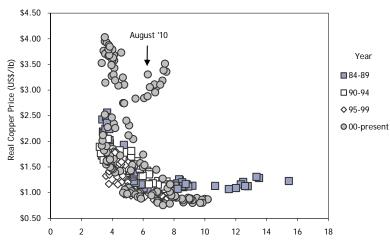
Exhibit 14: Physical Copper Premia



After increasing in the first half of 2010, physical premiums have stabilized and declined slightly in the U.S., pointing to the possibility of a softening of demand.

Source: Bloomberg

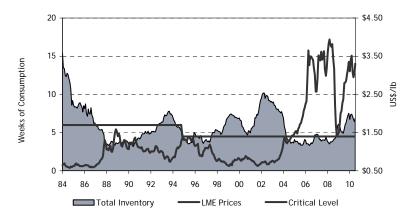
Exhibit 15: Total Refined Copper Inventories versus Real Prices



Total Inventories - Weeks of Consumption

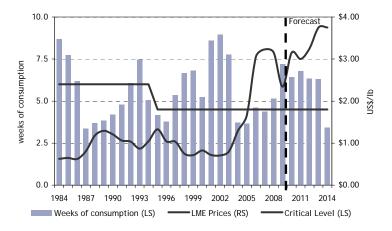
Source: RBC Capital Markets estimates, Brook Hunt, ICSG

Exhibit 16: Total Refined Copper Inventory, Prices and Critical Level



Source: RBC Capital Markets estimates, Brook Hunt, ICSG

Exhibit 17: Forecast Total Refined Copper Inventories and Prices



Source: RBC Capital Markets estimates, Bloomberg, Brook Hunt, ICSG

The copper price remains significantly above the level one would expect based on the historical inventory price relationship.

With inventories at elevated levels, the marginal cost of production would normally be expected to be a key determinant of prices. Our cost analysis suggests that marginal cost at the 90th percentile of the mine cash cost curve is roughly \$1.30/lb. But more importantly, we believe the marginal cost of scrap is likely approximately \$2.00/lb and that this would be the level of fundamental cost support for prices if it were required. However, with mining capacity utilization rates close to full effective levels, we do not believe that prices will drop to marginal costs in any correction.

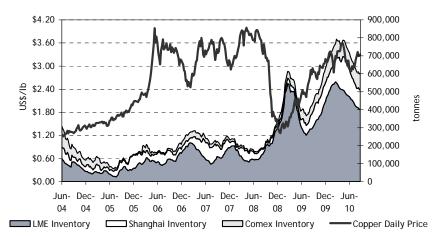
Total inventories are currently 6.3 weeks of consumption, up from 5.2 weeks at the beginning of 2009 but below the peak of 7.5 weeks at the end of January, 2010. This is above the critical level of 4.5 weeks of consumption but well below the historical highs and even the highs of the immediate past cycle. On this basis, the copper market is in a much better fundamental position than the other metals.

The critical level has declined from 6 weeks of consumption in the early 1980s to the current level of 4.5 weeks.

We expect inventories to decline on trend throughout our forecast period, supporting historically strong pricing. Our forecast rebound in demand in 2010 through 2012 should result in a balanced to deficit market, drawing down inventories and supporting strong prices. Growing deficits in 2013 and beyond are forecast to reduce inventories below the critical level and result in record high annual average prices in the latter part of our forecast period.



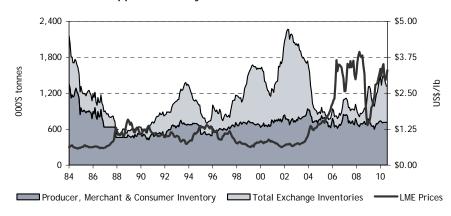
Exhibit 18: Copper Exchange Inventories and Prices



The copper market moved back into deficit in the first half of 2010. From a high of over 794,000 tonnes in February, 2010 exchange inventories have declined by approximately 200,000 tonnes to 595,934 tonnes at the end of August, 2010.

Source: RBC Capital Markets estimates, Brook Hunt, ICSG

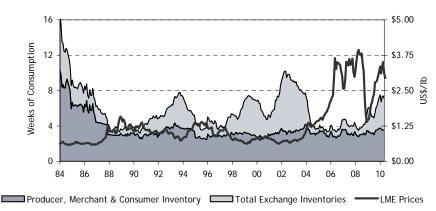
Exhibit 19: Total Copper Inventory and LME Prices



Total reported inventories increased by 255,400 tonnes in 2009, to 1,418,400 tonnes. Total reported inventories declined to 1,310,200 tonnes at the end of August 2010, suggesting the market has been in a 108,000 tonne deficit in the first eight months of the year, roughly in line with our full year deficit forecast of 39,000 tonnes.

Source: RBC Capital Markets estimates, Brook Hunt, ICSG

Exhibit 20: Total Copper Inventory in Weeks of Consumption and Prices



Source: RBC Capital Markets estimates, Bloomberg, Brook Hunt, ICSG

Total copper inventories remain well below the peaks of 2002 and the early 1980s in absolute terms and in terms of weeks of consumption.



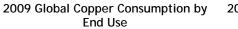
September 21, 2010 Copper Market Outlook

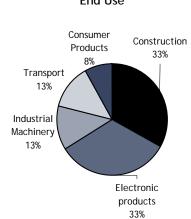
Exhibit 21: Primary Copper Consumption

Western World Consumption		2004	2005	2006	2007	2008	2009	2010E	2011E	2012E	2013E	2014E
	Trend Grow	vth										
	1994-200											
Africa	'000 tonne: 8.4%	206	234	243	278	310	318	330	336	343	348	354
Canada	'000 tonnes -0.2%	297	290	301	206	197	142	147	150	153	156	158
USA	'000 tonnes -2.7%	2,415	2,274	2,130	2,137	2,020	1,629	1,719	1,764	1,809	1,838	1,868
North America Total	'000 tonnes -2.5%	2,712	2,564	2,431	2,343	2,217	1,771	1,866	1,915	1,962	1,994	2,026
Latin America Total	'000 tonnes 2.7%	954	979	924	887	917	791	820	836	853	867	881
Japan	'000 tonnes -1.8%	1,279	1,229	1,282	1,252	1,185	876	1,087	1,122	1,155	1,174	1,193
South Korea	'000 tonnes 3.6%	937	864	812	821	780	901	1,030	1,099	1,167	1,185	1,204
Taiwan	'000 tonnes 0.3%	690	638	640	603	582	494	563	592	633	643	653
India	'000 tonnes 9.8%	350	415	450	540	570	610	673	711	750	762	774
Other Asia	'000 tonnes 5.8%	1,321	1,401	1,518	1,569	1,584	1,555	1,613	1,645	1,678	1,705	1,733
Asia Total	'000 tonne: 2.5%	4,576	4,547	4,702	4,785	4,701	4,436	4,966	5,168	5,383	5,470	5,558
Germany	'000 tonnes 1.7%	1,121	1,180	1,398	1,392	1,398	1,134	1,314	1,372	1,410	1,433	1,456
France	'000 tonnes -2.1%	550	505	540	440	410	310	340	352	358	363	369
Spain	'000 tonnes 5.1%	331	321	319	330	385	338	341	347	362	368	374
Italy	'000 tonnes 2.1%	719	681	801	764	635	523	542	553	564	573	583
United Kingdom	'000 tonnes -12.6%	242	200	180	55	54	49	51	52	53	54	55
Other Western Europe	'000 tonnes -2.9%	869	625	639	686	590	442	459	468	477	485	493
Western Europe Total	'000 tonnes -0.3%	3,832	3,512	3,877	3,667	3,472	2,796	3,047	3,144	3,225	3,277	3,330
Oceania Total	'000 tonne: -2.2%	167	155	143	148	151	130	134	137	140	142	144
Western World Total	'000 tonne: 0.5%	12,447	11,991	12,320	12,108	11,768	10,240	11,162	11,537	11,906	12,098	12,293
	-	12,447	11,771	12,320	12,100	11,700	10,240	11,102	11,557	11,700	12,070	12,273
Western World YoY Change		F 00/	F 00/		0.00/	F F0/	10.40	F F0/	0.70	0.5%	1 (0)	1 (0)
USA	%	5.2%	-5.8%	-6.3%	0.3%	-5.5%	-19.4%	5.5%	2.7%	2.5%	1.6%	1.6%
Japan South Konne	%	6.3%	-3.9%	4.3%	-2.4%	-5.4%	-26.1%	24.1%	3.2%	3.0%	1.6%	1.6%
South Korea	%	3.4%	-7.8%	-6.0%	1.1%	-5.0%	15.5%	14.3%	6.6%	6.2%	1.6%	1.6%
Taiwan	%	11.4%	-7.5%	0.3%	-5.8%	-3.4%	-15.2%	14.0%	5.2%	6.9%	1.6%	1.6%
India	%	12.5%	18.6%	8.4%	20.0%	5.6%	7.0%	10.3%	5.6%	5.5%	1.6%	1.6%
Germany	%	10.8%	5.3%	18.5%	-0.4%	0.4%	-18.9%	15.9%	4.4%	2.8%	1.6%	1.6%
France	%	1.9%	-8.2%	7.0%	-18.5%	-6.8%	-24.4%	9.5%	3.7%	1.6%	1.6%	1.6%
Spain	%	6.4%	-3.0%	-0.6%	3.4%	16.7%	-12.2%	0.9%	1.8%	4.3%	1.6%	1.6%
Other WW Western World Total	% -	7.2% 6.8%	-4.4% -3.7%	4.0% 2.7%	-3.3% -1.7%	-3.4% -2.8%	-11.0% -13.0%	3.7% 9.0%	2.0% 3.4%	2.0% 3.2%	1.6%	1.6%
	76	0.0%	-3.7%	2.1%	-1.7%	-2.0%	-13.0%	9.0%	3.4%	3.2%	1.0%	1.0%
Former Eastern Bloc Copper Consumption												
China	'000 tonnes 13.4%	3,631	3,762	3,894	4,707	5,202	6,954	7,232	7,910	8,639	9,244	9,891
Other Former Eastern Bloc	'000 tonnes 6.3%	1,043	1,081	1,206	1,247	1,177	822	889	927	965	977	988
Total Eastern Bloc	'000 tonnes 11.7%	4,673	4,843	5,100	5,954	6,379	7,776	8,121	8,836	9,604	10,221	10,880
Former Eastern Bloc YoY Change												
China	%	15.7%	3.6%	3.5%	20.9%	10.5%	33.7%	4.0%	9.4%	9.2%	7.0%	7.0%
Other EB	%	17.5%	3.7%	11.6%	3.4%	-5.6%	-30.2%	8.2%	4.3%	4.1%	1.2%	1.2%
Former Eastern Bloc Total	%	16.1%	3.6%	5.3%	16.7%	7.1%	21.9%	4.4%	8.8%	8.7%	6.4%	6.4%
Global Total Copper Consumption												
Total Consumption	'000 tonnes 3.0%	17,121	16,834	17,421	18,062	18,147	18,016	19,283	20,373	21,510	22,319	23,172
Total YoY Change	%	9.2%	-1.7%	3.5%	3.7%	0.5%	-0.7%	7.0%	5.7%	5.6%	3.8%	3.8%
Source: RBC Capital Markets estimate	s. Brook Hunt. ICSG											

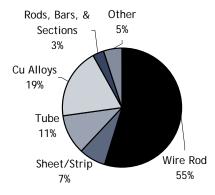
Source: RBC Capital Markets estimates, Brook Hunt, ICSG

Exhibit 22: Copper Consumption Patterns

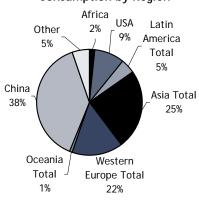




2009 Global Copper Consumption by First Use



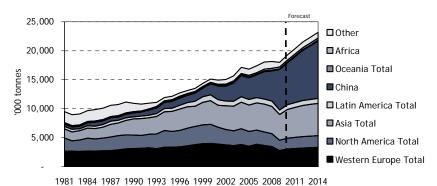
2009 Global Refined Copper Consumption by Region



Source: RBC Capital Markets estimates, Brook Hunt, ICSG



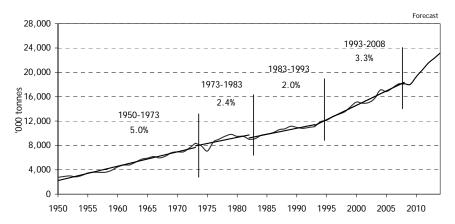
Exhibit 23: Global Refined Copper Consumption by Region



Global copper demand declined by 0.7% in 2009. After growth of 3.7% in 2007, global copper demand grew by only 0.5% in 2008, with a decline of 2.8% in the Western World offset by 10.5% growth in China. In 2009, Western World demand fell by 12.9% while Chinese demand increased 33.7%. Our forecast rebound in Western World demand of 9.0% in 2010 is consistent with performance year-to-date.

Source: RBC Capital Markets estimates, Brook Hunt, ICSG

Exhibit 24: Global Refined Copper Consumption



We forecast a rebound in global demand of 7.0% in 2010 driven by continued growth in China and our forecast rebound in the developed world. We forecast further growth of 5.7% in 2011, 5.6% in 2012, and trend growth of 3.8% in 2013 and 2014.

The key risks to our forecast are the degree of slowing in Chinese demand in the second half of 2010 and the strength of demand growth outside of China once restocking comes to an end.

China was for all intents and

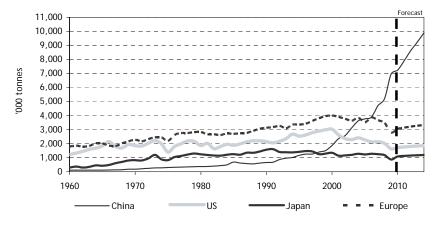
growth of 20.9% in 2007, Chinese

consumption grew by 10.5% in 2008

purposes the only source of increased demand in 2009. After

Source: RBC Capital Markets estimates, Brook Hunt, ICSG

Exhibit 25: Refined Copper Consumption



and then accelerated to 33.7% in 2009, driven by dramatic pipeline restocking (we have adjusted this demand to exclude SRB restocking). We forecast growth of 4.0% in 2010, 9.4% in 2011 and 9.2% in 2012, followed by trend growth of 7.0% in

Source: RBC Capital Markets estimates, Bloomberg, Brook Hunt, ICSG

2013 and 2014.

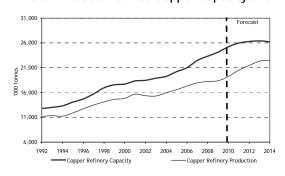
September 21, 2010 Copper Market Outlook

Exhibit 26: Refined Copper Capacity

Electro-Refined Concentrates Capacity		2004	2005	2006	2007	2008	2009	2010E	2011E	2012E	2013E	2014E
Africa	'000 tonnes	850	850	855	923	969	1,100	1,049	1,049	1,049	1,049	1,049
North America	'000 tonnes	2,101	2,101	1,932	1,937	1,937	1,832	1,760	1,688	1,688	1,688	1,688
Latin America	'000 tonnes	2,454	2,480	2,495	2,642	2,649	2,676	2,711	2,711	2,711	2,711	2,711
Asia	'000 tonnes	3,365	3,891	4,117	4,347	4,128	4,233	4,233	4,233	4,233	4,233	4,233
Western Europe	'000 tonnes	2,095	2,081	2,093	2,124	2,187	2,187	2,217	2,217	2,217	2,217	2,217
Oceania	'000 tonnes	505	505	508	528	538	538	538	538	538	538	538
Western World Total Capacity	'000 tonnes	11,369	11,907	11,999	12,500	12,407	12,565	12,507	12,435	12,435	12,435	12,435
China	'000 tonnes	2,501	2,911	3,387	4,102	4,806	5,081	5,896	6,401	6,636	6,681	6,681
Russia	'000 tonnes	975	992	1,028	1,065	1,125	1,125	1,130	1,135	1,135	1,135	1,135
Other Eastern Bloc	'000 tonnes	1,421	1,433	1,443	1,446	1,516	1,577	1,647	1,647	1,647	1,647	1,647
Eastern Bloc Total	'000 tonnes	4,897	5,336	5,858	6,613	7,447	7,783	8,673	9,183	9,418	9,463	9,463
Probable Projects	'000 tonnes	-	-	-	-	-	-	25	38	46	89	116
Global Total Refinery Capacity	'000 tonnes	16,266	17,243	17,857	19,113	19,854	20,348	21,205	21,656	21,900	21,987	22,015
YoY Change - Global		2.4%	6.0%	3.6%	7.0%	3.9%	2.5%	4.2%	2.1%	1.1%	0.4%	0.1%
SX-EW Capacity		2004	2005	2006	2006	2008	2009	2010E	2011E	2012E	2013E	2014E
Africa	'000 tonnes	115	157	182	217	207	294	411	480	491	546	479
North America	'000 tonnes	578	554	584	566	597	473	410	605	684	695	692
Latin America	'000 tonnes	2,196	2,130	2,228	2,429	2,497	2,816	2,937	2,934	2,894	2,809	2,676
Asia	'000 tonnes	47	84	96	95	91	85	104	108	108	108	108
Western Europe	'000 tonnes	1	-		-	-	37	72	72	73	72	73
Oceania	'000 tonnes	38	27	32	27	38	28	19	17	15	15	11
Western World Total Capacity	'000 tonnes	2,976	2,952	3,122	3,334	3,430	3,734	3,954	4,216	4,264	4,244	4,039
YoY Change - WW		-0.7%	-0.8%	5.8%	6.8%	2.9%	8.9%	5.9%	6.6%	1.1%	-0.5%	-4.8%
Eastern Bloc Total	'000 tonnes	12	15	27	31	38	49	66	83	95	106	106
YoY Change - Former EB		7.1%	28.1%	72.5%	17.1%	20.8%	29.6%	36.2%	25.4%	14.5%	11.6%	0.0%
Probable Projects	'000 tonnes	-	-	-	-	-	-	-	11	36	61	65
Global Total SxEw Capacity	'000 tonnes	2.988	2,967	3,148	3.365	3.467	3.783	4.020	4,299	4,359	4.350	4,145
YoY Change - Global		-0.7%	-0.7%	6.1%	6.9%	3.0%	9.1%	6.3%	6.9%	1.4%	-0.2%	-4.7%
Total Capacity		2004	2005	2006	2007	2008	2009	2010E	2011E	2012E	2013E	2014E
WW Concentrates	'000 tonnes	11,369	11,907	11,999	12,500	12,407	12,565	12,507	12,435	12,435	12,435	12,435
WW SX-EW	'000 tonnes	2,976	2.952	3,122	3,334	3,430	3,734	3,954	4,216	4,264	4,244	4,039
WW Total	'000 tonnes	14,345	14.859	15,121	15,834	15,837	16,299	16,461	16,652	16,700	16,679	16,475
YoY Change - WW	ood tornics	0.1%	3.6%	1.8%	4.7%	0.0%	2.9%	1.0%	1.2%	0.3%	-0.1%	-1.2%
Former Eastern Bloc Concentrates	'000 tonnes	4,897	5,336	5,858	6,613	7,447	7,783	8,673	9,183	9,418	9,463	9,463
Former Eastern Bloc SX-EW	'000 tonnes	12	15	27	31	38	49	66	83	95	106	106
Former Eastern Bloc total	'000 tonnes	4,909	5,351	5,885	6,644	7,485	7,832	8,739	9,266	9,513	9,569	9,569
YoY Change - Former EB		7.7%	9.0%	10.0%	12.9%	12.6%	4.6%	11.6%	6.0%	2.7%	0.6%	0.0%
New Projects - Concentrates	'000 tonnes	-	-	-	-	-	-	25	38	46	89	116
New Projects - SX-EW	'000 tonnes	-	-	-	-	-	-	-	11	36	61	65
New Projects Total	'000 tonnes	-	-	-	-	-	-	25	49	83	150	181
Global Total	'000 tonnes	19,254	20,211	21,005	22,478	23,322	24,131	25,225	25,966	26,295	26,398	26,225

Source: RBC Capital Markets estimates, Brook Hunt, ICSG

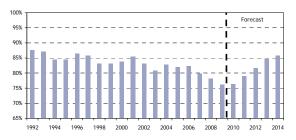
Exhibit 27: Global Refined Copper Capacity and Production



We estimate global refining capacity increased by 3.5% in 2009, and forecast growth of 4.5% in 2010, 2.9% in 2011, 1.3% in 2012, and 0.4% in 2013, followed by a decline of 0.7% in 2014. Most of the increase is made up of increased smelting and refining capacity in China and increased SX-EW capacity in Africa and Latin America.

Source: RBC Capital Markets estimates, Brook Hunt, ICSG

Exhibit 28: Global Refined Copper Capacity Utilization



Source: RBC Capital Markets estimates, Brook Hunt, ICSG

Our analysis suggests that 2009 refinery capacity utilization rates fell to levels not seen since the early 1980s. Operating rates fell due to a shortage of feed including scrap, collapsing demand and an oversupplied sulphuric acid market. We expect the decline in utilization rates in 2009 to give way to a recovery beginning in 2010. However, we do not expect refinery capacity to return to full effective utilization rates due to a shortage of concentrate. Mine capacity remains the bottleneck.

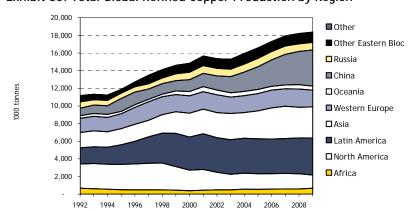


Exhibit 29: Refined Copper Production

Production of Electro-Refined Copper		2004	2005	2006	2007	2008	2009	2010E	2011E	2012E	2013E	2014E
Africa	'000 tonnes	404	377	376	373	366	381	766	791	823	855	873
North America	'000 tonnes	1,249	1,217	1,221	1,259	1,213	1,021	1,285	1,274	1,324	1,376	1,404
Latin America	'000 tonnes	2,068	2,132	1,982	1,841	1,861	1,848	1,979	2,045	2,127	2,210	2,255
Asia	'000 tonnes	2,885	3,080	3,449	3,581	3,412	3,450	3,090	3,194	3,321	3,451	3,521
Western Europe	'000 tonnes	1,895	1,957	2,015	1,967	2,053	1,887	1,618	1,673	1,739	1,807	1,844
Oceania	'000 tonnes	432	418	377	400	449	422	392	406	422	438	447
Western World Total Production	'000 tonnes	8,933	9,180	9,418	9,420	9,353	9,009	9,130	9,383	9,755	10,138	10,345
YoY Change - WW		1.8%	2.8%	2.6%	0.0%	-0.7%	-3.7%	1.3%	2.8%	4.0%	3.9%	2.0%
China	'000 tonnes	2,187	2,585	2,987	3,481	3,778	4,101	4,304	4,830	5,206	5,447	5,558
Russia	'000 tonnes	919	933	947	939	852	864	825	856	890	925	944
Other Eastern Bloc	'000 tonnes	1,184	1,179	1,119	1,112	1,148	1,141	1,202	1,243	1,292	1,343	1,370
Eastern Bloc	'000 tonnes	4,290	4,698	5,053	5,532	5,778	6,107	6,331	6,929	7,388	7,715	7,872
YoY Change - Former EB		13.6%	9.5%	7.6%	9.5%	4.4%	5.7%	3.7%	9.4%	6.6%	4.4%	2.0%
Probable Projects	'000 tonnes		-	-	-	-	-	19	30	38	75	100
Total Global Electro-Refinery Production	'000 tonnes	13,222	13,878	14,470	14,952	15,131	15,116	15,481	16,341	17,181	17,928	18,317
Global YoY Change		5.4%	5.0%	4.3%	3.3%	1.2%	-0.1%	2.4%	5.6%	5.1%	4.3%	2.2%
· ·												
Production from SX-EW	1000 1		4/0	400	04/	04.6	004	005	4/0	470	F.4.	470
Africa	'000 tonnes	144	162	188	216	216	291	385	463	478	546	479
North America	'000 tonnes	584	554	530	506	510	476	384	584	667	695	692
Latin America	'000 tonnes	1,881	1,843	1,952	2,112	2,208	2,350	2,750	2,833	2,820	2,809	2,676
Asia	'000 tonnes	43	75	89	84	71	79	97	104	105	108	108
Western Europe	'000 tonnes	1	-	1	3	3	8	68	69	71	72	73
Oceania	'000 tonnes	58	51	52	42	53	23	18	16	15	15	11
Western World Total Production	'000 tonnes	2,712	2,684	2,812	2,963	3,061	3,228	3,701	4,070	4,156	4,244	4,039
YoY Change - WW		-0.3%	-1.0%	4.8%	5.3%	3.3%	5.5%	14.7%	10.0%	2.1%	2.1%	-4.8%
Eastern Bloc	'000 tonnes	14	19	23	31	29	33	62	80	93	106	106
YoY Change - Former EB		23.3%	35.7%	20.1%	31.3%	-4.6%	11.3%	90.7%	29.3%	15.6%	14.5%	0.0%
Probable Projects	'000 tonnes	-	-	-	-	-	-	-	9	30	52	56
Total Global SX-EW Production	'000 tonnes	2,726	2,704	2,836	2,993	3,090	3,261	3,763	4,159	4,278	4,402	4,201
Global YoY Change		-0.2%	-0.8%	4.9%	5.6%	3.2%	5.5%	15.4%	10.5%	2.9%	2.9%	-4.6%
Total Production												
WW Electo-Refined	'000 tonnes	8,933	9,180	9,418	9,420	9,353	9,009	9,130	9,383	9,755	10,138	10,345
WW SX-EW	'000 tonnes	2,712	2,684	2,812	2,963	3,061	3,228	3,701	4,070	4,156	4,244	4,039
WW Total	'000 tonnes	11,644	11,865	12,230	12,383	12,414	12,238	12,832	13,452	13,911	14,382	14,384
YoY Change - WW		1.3%	1.9%	3.1%	1.2%	0.3%	-1.4%	4.9%	4.8%	3.4%	3.4%	0.0%
Former Eastern Bloc Electro-Refined	'000 tonnes	4,290	4,698	5,053	5,532	5,778	6,107	6,331	6,929	7,388	7,715	7,872
Former Eastern Bloc SX-EW	'000 tonnes	14	19	23	31	29	33	62	80	93	106	106
Former Eastern Bloc Total	'000 tonnes	4,304	4,717	5,076	5,563	5,807	6,139	6,393	7,009	7,481	7,821	7,978
YoY Change - Former Eastern Bloc		13.6%	9.6%	7.6%	9.6%	4.4%	5.7%	4.1%	9.6%	6.7%	4.5%	2.0%
Probable Projects	'000 tonnes						-	19	38	67	127	156
Total Global Production	'000 tonnes	15,948	16,582	17,306	17,945	18,222	18,377	19,244	20,499	21,459	22,329	22,518
YoY Change - Global	000 10111103	4.4%	4.0%	4.4%	3.7%	1.5%	0.9%	4.7%	6.5%	4.7%	4.1%	0.8%
•												
Capacity Utilization		2004	2005	2006	2006	2008	2009	2010E	2011E	2012E	2013E	2014E
WW Electo-Refined		78.6%	77.1%	78.5%	75.4%	75.4%	71.7%	73.0%	75.5%	78.4%	81.5%	83.2%
WW SX-EW		91.1%	90.9%	90.1%	88.9%	89.2%	86.5%	93.6%	96.5%	97.5%	100.0%	100.0%
WW Total		81.2%	79.8%	80.9%	78.2%	78.4%	75.1%	78.0%	80.8%	83.3%	86.2%	87.3%
Former Eastern Bloc Electro-Refined		87.6%	88.0%	86.2%	83.7%	77.6%	78.5%	73.0%	75.5%	78.4%	81.5%	83.29
Former Eastern Bloc SX-EW		119.2%	126.3%	87.9%	98.6%	77.9%	66.9%	93.6%	96.5%	97.5%	100.0%	100.09
Former Eastern Bloc total		87.7%	88.1%	86.3%	83.7%	77.6%	78.4%	73.2%	75.6%	78.6%	81.7%	83.4%
Global Total Capacity Utilization		82.8%	82.0%	82.4%	79.8%	78.1%	76.2%	76.3%	78.9%	81.6%	84.6%	85.9%

Source: RBC Capital Markets estimates, Brook Hunt, ICSG

Exhibit 30: Total Global Refined Copper Production by Region



Source: RBC Capital Markets estimates, Brook Hunt, ICSG

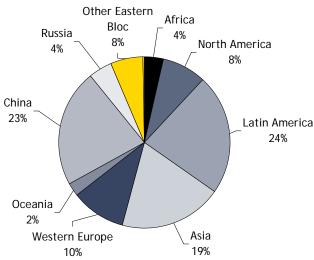
Restricted mine and scrap supply constrained refined production in 2009.

Global refined production growth slowed to only 1.5% in 2008, as temporary disruptions continued to plague the industry. In 2009, production grew by only 0.9%. We forecast a return to growth of 4.7% in 2010, 6.5% in 2011, 4.7% in 2012, 4.1% in 2013 and 0.8% in 2014.



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Exhibit 31: 2009 Global Refined Copper Production by Region

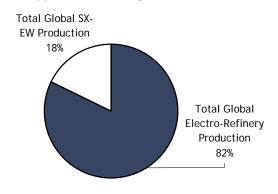


Africa, and in particular Zambia and the DRC, has very strong supply growth potential. In 1969, Zambia and Zaire (now the Democratic Republic of the Congo) together produced approximately 20% of total global production. The subsequent decline was primarily a function of political factors and not the depletion of resources. Investment in the Copper Belt by Western mining companies, as well as the Chinese, is accelerating. However, recent tax uncertainty in Zambia and ongoing title uncertainty in the DRC have restricted investment by Western mining companies, at least in the near term.

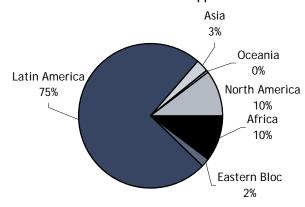
Source: RBC Capital Markets estimates, Brook Hunt, ICSG

Exhibit 32: Copper SX-EW Production

2009 Copper Production by SX-EW/Electro Refined

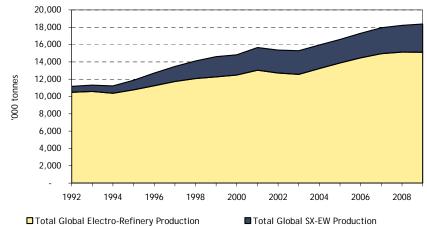


2009 Total Global SX-EW Copper Production



Source: RBC Capital Markets estimates, Brook Hunt, ICSG

Exhibit 33: Copper SX-EW/Electro Refinery Production



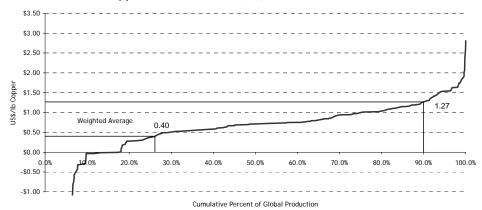
Source: RBC Capital Markets estimates, Brook Hunt, ICSG

After rapid growth in the 1980s and early 1990s, output from SX-EW has leveled off at approximately 20% of the total. We expect this percentage to remain constant as technological advancement (leaching of secondary and primary sulphides) offsets the depletion of conventional oxide deposits.

It should be noted that, by nature, oxide deposits are close to the surface and relatively easy to discover (and, therefore, generally already known). We consequently do not expect significant new discoveries to replace depleted deposits.



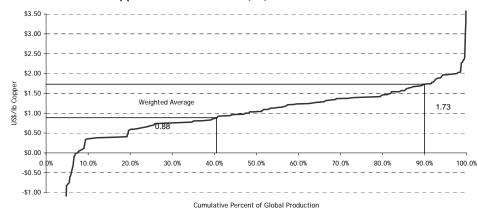
Exhibit 34: 2010E Copper Cash Cost Curve (C1) *



We estimate that weighted average cash costs (C1) have decreased from \$0.48/lb in 2005 to \$0.14/lb in 2008 with the decrease in TC/RCs and increase in by-product credits. In 2009, we estimate that weighted average cash costs increased to \$0.72/lb given the decline in by-product credits. In 2010, we expect weighted average cash costs to decrease to \$0.40/lb. At current prices, all producers have positive cash margins.

Source: RBC Capital Markets estimates, Brook Hunt

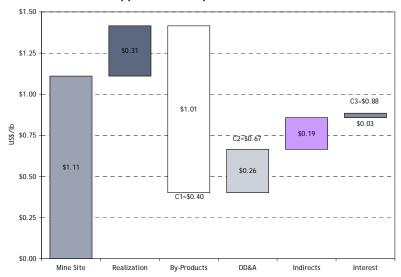
Exhibit 35: 2010E Copper Total Cost Curve (C3) **



We estimate that weighted average total costs (C3) decreased from \$0.77/lb in 2005 to \$0.55/lb in 2008. In 2009, we estimate that weighted average total costs increased to \$1.20/lb. In 2010, we expect weighted average total costs to decrease to \$0.88/lb. At current prices, all producers are making money on a full cost basis.

Source: RBC Capital Markets estimates, Brook Hunt

Exhibit 36: 2010E Copper Cost Components



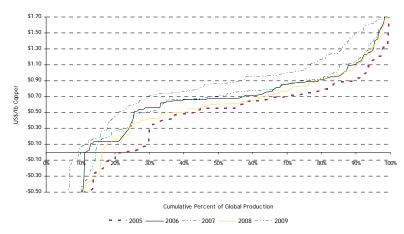
Rising input costs and a falling U.S. dollar, offset in part by falling TC/RCs, put upward pressure on operating costs over the past four years. Falling input costs reduced the cost pressures in the first half of 2009. However, rising costs of some inputs have again put upward pressure on costs.

Source: RBC Capital Markets estimates, Brook Hunt

^{*} Cash costs (C1) include all direct operating expenditures incurred at site, including mining processing as well as selling, general and administration expenses (SG&A). Cash costs also include realization costs, including treatment and refining charges, and transportation of saleable products to customers. Total cash expenditures are divided by the saleable pounds of copper to arrive at gross unit cash costs. Revenues generated by by-products are subtracted from gross costs to yield net cash costs; ** Total costs (C3) include all direct cash costs (C1), indirect cash costs (such as corporate SG&A and interest charges) and non-cash charges for depreciation.

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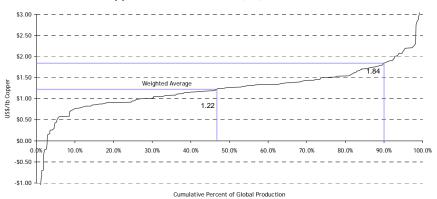
Exhibit 37: Copper Cash Cost Increases (2005 - 2009)



Operating costs increased sharply in 2006 from 2005 levels. However, in 2007 and 2008, further increases in input costs were offset by falling TC/RCs and rising by-product credits, limiting the overall increase in operating costs. In 2009, sharp increases in operating costs from 2008 levels occurred as a result of lower by-product credits.

Source: RBC Capital Markets estimates, Brook Hunt

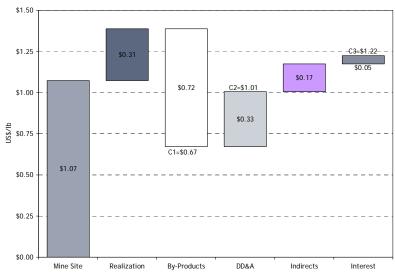
Exhibit 38: 2015E Copper Total Cost Curve (C3) **



In the longer term, we forecast that 90% of production should have total costs (C3) of \$1.84/lb or less. Our long-term price estimate is \$2.00/lb in 2010 US\$ terms.

Source: RBC Capital Markets estimates, Brook Hunt

Exhibit 39: 2015E Copper Cost Components



We expect the weighted average cash cost (C1) to increase from current levels of \$0.40/lb to \$0.67/lb in the long term.

Source: RBC Capital Markets estimates, Brook Hunt

^{**} Total costs (C3) include all direct cash costs (C1), indirect cash costs (such as corporate SG&A and interest charges) and non-cash charges for depreciation.



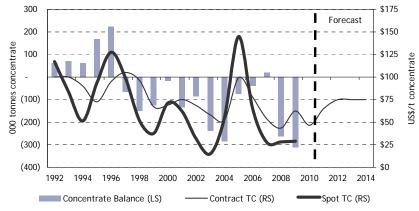
^{*} Cash costs (C1) include all direct operating expenditures incurred at site, including mining processing as well as selling, general and administration expenses (SG&A). Cash costs also include realization costs, including treatment and refining charges, and transportation of saleable products to customers. Total cash expenditures are divided by the saleable pounds of copper to arrive at gross unit cash costs. Revenues generated by by-products are subtracted from gross costs to yield net cash costs.

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Exhibit 40: Copper Mine Output Supply/Demand Balance

Supply / Demand Balance - Concentrates		2004	2005	2006	2007	2008	2009	2010E	2011E	2012E	2013E	2014E
	1000	44.000		10.100					40.505			
Mine Supply	'000s tonnes	11,888	12,230	12,166	12,481	12,437	12,494	12,871	13,587	14,338	15,023	15,354
less direct use	'000s tonnes	10	16	18	19	16	21	10	11	11	12	12
plus inventory changes	'000s tonnes	(581)	(165)	136	26	18	(33)	-	-	-	-	-
Copper Concentrate to Smelters	'000s tonnes	11,296	12,050	12,283	12,489	12,438	12,439	12,861	13,576	14,327	15,011	15,342
Smelter Production	'000s tonnes	12,893	13,504	13,964	14,239	14,593	14,511	14,510	15,289	16,111	16,821	17,180
plus smelting losses	'000s tonnes	322	338	349	356	365	363	363	382	403	421	429
less secondary feed (scrap & resmelted blister)	'000s tonnes	1,634	1,718	1,990	2,125	2,255	2,123	2,012	2,095	2,187	2,231	2,267
Total Demand for Copper Concentrates	'000s tonnes	11,582	12,124	12,323	12,470	12,702	12,751	12,861	13,576	14,327	15,011	15,342
Mine Supply Surplus / (Shortfall)	'000s tonnes	(285)	(75)	(40)	19	(264)	(312)		-	-	(0)	-
Supply / Demand Balance - SXEW		2004	2005	2006	2007	2008	2009	2010E	2011E	2012E	2013E	2014E
Mine Supply	'000s tonnes	2,706	2,694	2,825	2,993	3,090	3,261	3,763	4,159	4,278	4,411	4,210
Total Demand for SXEW ore	'000s tonnes	2,726	2,704	2,836	2,993	3,090	3,261	3,763	4,159	4,278	4,402	4,201
Mine Supply Surplus / (Shortfall)	'000s tonnes	(20)	(10)	(10)	(1)	(0)	-	-	0	0	9	9
Concentrate Treatment Charges		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Contract TCs	US\$/tonne	\$53	\$99	\$78	\$54	\$44	\$63	\$47	\$65	\$75	\$75	\$75
Spot TCs	US\$/tonne	\$56	\$145	\$64	\$28	\$28	\$29					
Long Term Contract TCs (2015+) 2010 US\$	US\$/tonne											\$80
Source: RBC Capital Markets estimates,	Brook Hunt											

Exhibit 41: Copper Concentrate Balance and TCs



Source: RBC Capital Markets estimates, CRU, Brook Hunt

We estimate that the copper concentrate market experienced a deficit for the second year in a row in 2009. We expect the market to remain in deficit throughout our forecast period. Growth in mine production has not been able to keep up with the growth of smelting and refining capacity or the growth in refined copper demand, both led by China.

With supply constrained by a lack of mine production, and concentrate inventories depleted, TC/RC terms settled in favour of the miners in 2006, 2007 and 2008. In Q4/08, spot TCs increased significantly, reflecting an easing of concentrate supply due to production cuts and disruptions at smelters, and falling demand for refined copper. As a result, 2009 settlements moved in favour of the smelters, settling at \$75/tonne. However, mid-year TCs settled at \$50/tonne and spot TCs subsequently fell to a low of \$5.50/tonne as the market again tightened.

2010 annual terms again settled in favour of the miners at \$46.50/tonne and mid-year TC's fell further to \$39/tonne. At present spot TCs are approximately \$15/tonne, up from lows of almost \$0/tonne in H1/2010.

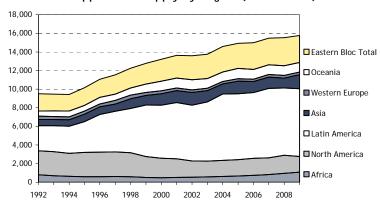
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Exhibit 42: Copper Mine Production

Concentrate Producers		2004	2005	2006	2007	2008	2009	2010E	2011E	2012E	2013E	2014E
Africa	'000 tonnes	487	518	561	608	736	784	954	1,158	1,208	1,213	1,214
North America	'000 tonnes	1,153	1,199	1,295	1,285	1,432	1,218	1,295	1,354	1,312	1,275	1,291
Latin America	'000 tonnes	5,249	5,237	5,117	5,360	5,014	4,924	5,021	5,427	6,099	6,618	6,994
Asia	'000 tonnes	1,042	1,281	1,096	1,122	1,007	1,435	1,320	1,222	1,227	1,300	1,300
Western Europe	'000 tonnes	256	269	250	278	277	270	241	287	297	307	315
Oceania	'000 tonnes	969	1,058	1,001	998	990	997	1,189	1,142	1,124	1,036	847
Western World Total Production	'000 tonnes	9,157	9,562	9,320	9,651	9,457	9,630	10,021	10,590	11,266	11,749	11,961
YoY Change - WW		8.7%	4.4%	-2.5%	3.6%	-2.0%	1.8%	4.1%	5.7%	6.4%	4.3%	1.8%
China	'000 tonnes	742	762	873	928	1,076	1,009	966	1,012	1,021	1,047	1,043
Russia	'000 tonnes	630	638	670	680	695	666	668	710	726	750	750
Other Eastern Bloc	'000 tonnes	1,359	1,268	1,303	1,223	1,209	1,189	1,208	1,256	1,274	1,366	1,450
Eastern Bloc Total	'000 tonnes	2,731	2,668	2,846	2,831	2,980	2,864	2,842	2,978	3,021	3,163	3,243
YoY Change - Former Eastern Bloc		4.5%	-2.3%	6.7%	-0.5%	5.3%	-3.9%	-0.8%	4.8%	1.5%	4.7%	2.5%
Probable Projects	'000 tonnes	-	-	-	-	-	-	8	20	51	110	150
Total Global Concentrate Production	'000 tonnes	11,888	12,230	12,166	12,481	12,437	12,494	12,871	13,587	14,338	15,023	15,354
YoY Change - Global		7.7%	2.9%	-0.5%	2.6%	-0.4%	0.5%	3.0%	5.6%	5.5%	4.8%	2.2%
SX EW		2004	2005	2006	2007	2008	2009	2010E	2011E	2012E	2013E	2014E
Africa	'000 tonnes	124	152	177	215	216	291	385	463	478	546	479
North America	'000 tonnes	584	554	530	506	510	476	384	583	666	695	692
Latin America	'000 tonnes	1,881	1,843	1,952	2,112	2,208	2,350	2,750	2,831	2,816	2,809	2,676
Asia	'000 tonnes	43	75	89	84	71	79	97	104	105	108	108
Western Europe	'000 tonnes	1	-	1	3	3	8	68	69	71	72	73
Oceania	'000 tonnes	58	51	52	42	53	23	18	16	15	15	11
Western World Total Production	'000 tonnes	2,692	2,674	2,802	2,962	3,061	3,228	3,701	4,068	4,151	4,244	4,039
YoY Change - WW		-0.7%	-0.6%	4.8%	5.7%	3.3%	5.5%	14.7%	9.9%	2.0%	2.3%	-4.8%
China	'000 tonnes	12	15	16	18	17	20	50	68	80	93	93
Russia	'000 tonnes	-	2	5	10	10	10	9	10	10	10	10
Other Eastern Bloc	'000 tonnes	2	2	2	2	3	3	3	3	3	3	3
Eastern Bloc Total	'000 tonnes	14	19	23	31	29	33	62	80	92	106	106
YoY Change - Former Eastern Bloc		23.3%	35.7%	20.1%	31.3%	-4.6%	11.3%	90.7%	29.2%	15.5%	14.6%	0.0%
Probable Projects	'000 tonnes	-	-	-	-	-	-	-	11	35	61	65
Total Global SXEW Production	'000 tonnes	2,706	2,694	2,825	2,993	3,090	3,261	3,763	4,159	4,278	4,411	4,210
YoY Change - Global		-0.6%	-0.5%	4.9%	5.9%	3.2%	5.5%	15.4%	10.5%	2.9%	3.1%	-4.6%
Total Mine Production		2004	2005	2006	2007	2008	2009	2010E	2011E	2012E	2013E	2014E
Africa	'000 tonnes	612	671	739	823	952	1,076	1,339	1,621	1,686	1,759	1,693
North America	'000 tonnes	1,737	1,752	1,825	1,791	1,942	1,695	1,679	1,937	1,978	1,969	1,983
Latin America	'000 tonnes	7,131	7,080	7,069	7,472	7,222	7,275	7,771	8,258	8,915	9,427	9,671
Asia	'000 tonnes	1,085	1,356	1,185	1,206	1,078	1,514	1,418	1,326	1,332	1,408	1,408
Western Europe	'000 tonnes	258	269	251	281	280	278	309	357	368	379	388
Oceania	'000 tonnes	1,028	1,109	1,053	1,040	1,043	1,021	1,206	1,158	1,139	1,051	858
Western World Total Production	'000 tonnes	11,849	12,237	12,122	12,613	12,517	12,858	13,723	14,657	15,417	15,993	16,000
YoY Change - WW		6.4%	3.3%	-0.9%	4.1%	-0.8%	2.7%	6.7%	6.8%	5.2%	3.7%	0.0%
China	'000 tonnes	754	777	889	946	1,093	1,029	1,016	1,080	1,101	1,140	1,136
Russia	'000 tonnes	630	640	675	690	705	676	677	719	736	760	760
Other Eastern Bloc	'000 tonnes	1,361	1,271	1,305	1,225	1,212	1,192	1,210	1,259	1,277	1,369	1,453
Eastern Bloc Total	'000 tonnes	2,745	2,687	2,869	2,861	3,009	2,896	2,904	3,058	3,114	3,269	3,349
YoY Change - Former Eastern Bloc		4.6%	-2.1%	6.8%	-0.3%	5.2%	-3.8%	0.3%	5.3%	1.8%	5.0%	2.4%
Probable Projects	'000 tonnes	-	-	-	-	-	-	8	31	86	172	215
Total Global Production	'000 tonnes	14,594	14,924	14,991	15,474	15,526	15,754	16,634	17,746	18,617	19,434	19,565
YoY Change - Global		6.1%	2.3%	0.4%	3.2%	0.3%	1.5%	5.6%	6.7%	4.9%	4.4%	0.7%

Source: RBC Capital Markets estimates, Brook Hunt, ICSG

Exhibit 43: Copper Mine Supply by Region ('000 tonnes)



Source: RBC Capital Markets estimates, Brook Hunt, ICSG

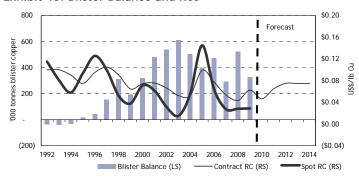
There were very few copper mine closures announced in the first half of 2009 as the majority of the industry remained profitable on a cash basis, and essentially all of the operations that were □ Eastern Bloc Total curtailed have been restarted. There was no growth in global mine production in 2008 as temporary disruptions continued to plague the industry and growth of only 1.5% in 2009. We forecast global growth of 5.6% in 2010, 6.7% in 2011, 4.9% in 2012, and 4.4% in 2013, dropping to just 0.7% in 2014. Most of the increase comes from Latin America and Africa. We expect that Latin America should remain the largest source of mine production, though we expect a resurgence of African production over the longer term.

Exhibit 44: Blister Copper Supply/Demand Balance

Market Balance		2004	2005	2006	2007	2008	2009	2010E	2011E	2012E	2013E	2014E
Smelter Production	'000 tonnes	12,893	13,504	13,964	14,239	14,593	14,511	14,510	15,289	16,111	16,821	17,180
less resmelted blister	'000 tonnes	241	263	289	370	399	378	395	389	421	421	421
less direct use of blister	'000 tonnes	16	15	7	30	56	-	16	17	18	19	19
plus blister inventory change	'000 tonnes	(3)	(48)	(68)	(44)	25	(21)	-	-	-	-	-
Total Supply to Refineries	'000 tonnes	12,632	13,178	13,599	13,796	14,163	14,112	14,099	14,883	15,672	16,381	16,739
Electro-Refinery Production	'000 tonnes	13,222	13,878	14,470	14,952	15,131	15,116	15,481	16,341	17,181	17,928	18,317
less scrap feed	'000 tonnes	1,094	1,102	1,343	1,447	1,491	1,330	1,382	1,458	1,509	1,547	1,578
Blister Required By Refineries	'000 tonnes	12,128	12,776	13,127	13,505	13,641	13,786	14,099	14,883	15,672	16,381	16,739
Implied Surplus / Deficit	'000 tonnes	505	402	472	291	522	326	0	-	-	-	-
Contract Refining Charges	US\$/Ib	\$0.053	\$0.099	\$0.078	\$0.054	\$0.044	\$0.063	\$0.047	\$0.065	\$0.075	\$0.075	\$0.075
Spot Refining Charges	US\$/Ib	\$0.056	\$0.145	\$0.064	\$0.028	\$0.028	\$0.029					
Long Term Contract RCs (2015+) 2010 US\$	US\$/Ib											\$0.082

Source: RBC Capital Markets estimates, Brook Hunt, ICSG

Exhibit 45: Blister Balance and RCs

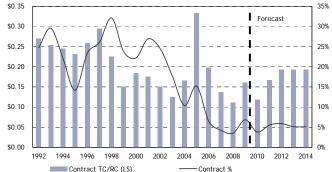


Source: RBC Capital Markets estimates, Brook Hunt, ICSG

The major supply constraint that emerged in the copper market in 2009 was a shortage of scrap. Secondary smelter feed (scrap & re-smelted blister; see Exhibit 40, p.17) and refinery scrap feed (Exhibit 44 above) accounted for 20% of global refined copper supply in 2008. As prices dropped below \$2.00/lb, scrap supply dropped precipitously. With the recovery in prices to over \$2.00/lb scrap supply rebounded, though it remains well below the levels of 2008. Fundamental cost-based support for copper prices likely lies in the range of \$2.00/lb. Total scrap supply declined by 7.8% in 2009. We forecast a further 1.7% decline in 2010 followed by

a rebound of 4.7% in 2011.

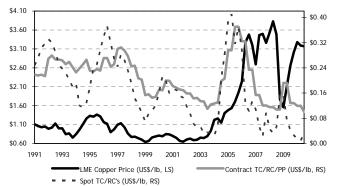
Exhibit 46: Combined TC/RC (29% grade concentrate)



Source: RBC Capital Markets estimates, Brook Hunt, ICSG

A shortage of mine production over the past four years resulted in a shortage of blister feed for refineries. 2008 RC settlements declined to \$0.045/lb as a result. As with TCs, spot RCs also increased significantly in Q4/08, setting the stage for 2009 settlements to move in favour of the refiners. However, mid-year RCs settled at \$0.05/lb and spot RCs subsequently fell to a low of \$0.006/lb as the market again tightened. 2010 annual terms settled at \$0.0465/lb and mid-year terms at \$0.039/lb. Spot terms are currently running at \$0.015/lb up from lows of almost \$0.0/lb in H1/2010.

Exhibit 47: LME Copper Prices versus TC/RC (30% grade concentrate)



Source: RBC Capital Markets estimates, Brook Hunt, ICSG

Our long-term forecast for combined TC/RCs for a 29% concentrate is \$0.20/lb in 2010 US\$ terms. This represents 10% of our forecast long-term copper price of \$2.00/lb (2010 US\$), below the average of 19% for the period from 1991 to the present.



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Appendix I: Projections for Copper Consumption

We have generated bottom-up forecasts for copper consumption using the following three methods:

Correlation with IP: This method of prediction was used to generate medium-term forecasts for the large, mature Western World economies. In Exhibit 48, we show that the eight nations for which we have used this method for predicting demand represent 35% of current global consumption. Data from 1970 to 2009 were used to develop the regression equations, and the average coefficient of correlation for these countries is 63%. Forecasts for changes in IP were taken from consensus forecasts developed by Consensus Economics Inc. We have adjusted our base case 2010 forecasts to reflect reported consumption growth in the first half of 2010.

Exhibit 48: Consumption Regressed with IP

		Demand ('000 tonnes)	Change in IP				Base Forecas	t	Adjusted Forecast		
	R ²	2009A	2010E	2011E	2012E	2010E	2011E	2012E	2010E	2011E	2012E
USA	35%	1,629	5.3%	4.6%	4.3%	3.0%	2.7%	2.5%	5.5%	2.7%	2.5%
Japan	55%	876	18.8%	4.4%	4.0%	13.1%	3.2%	3.0%	24.1%	3.2%	3.0%
South Korea	76%	901	8.1%	6.9%	6.4%	7.8%	6.6%	6.2%	14.3%	6.6%	6.2%
Taiwan	52%	494	6.6%	4.6%	6.1%	7.6%	5.2%	6.9%	14.0%	5.2%	6.9%
India	98%	610	5.0%	5.0%	5.0%	5.6%	5.6%	5.5%	10.3%	5.6%	5.5%
Germany	93%	1,134	8.0%	4.1%	2.6%	8.6%	4.4%	2.8%	15.9%	4.4%	2.8%
France	19%	310	4.6%	3.3%	1.4%	5.2%	3.7%	1.6%	9.5%	3.7%	1.6%
Spain	78%	338	0.3%	1.1%	2.7%	0.5%	1.8%	4.3%	0.9%	1.8%	4.3%
Total / Average	63%	6,291				•					
Clabal Tatal		10.01/									

 Global Total
 18,016

 % of total
 35%

Source: RBC Capital Markets estimates, Consensus Economics Inc.

Correlation with Time: For the remaining 65% of global consumption, our forecast is some combination of historical year-over-year change and/or the prediction generated by a regression of consumption over time. For example, since 1985, Chinese consumption has accelerated smoothly (see the graph in Exhibit 25). If this trend continues, we could expect growth in demand of 8.9% in 2010, 8.6% in 2011 and 8.4% in 2012. During the same period, the CAGR for Chinese consumption has been 10.1%. The equal weighting of these two methods of prediction yields a forecast of 9.5% for 2010, 9.4% for 2011 and 9.2% for 2012. We have adjusted our base case 2010 forecasts to reflect H1/2010 performance as noted above.

Exhibit 49: Consumption Regressed Against Time

	Demand Change	Trend Change in Consum		n Consumptio	Consumption Average		Base Forecast			Adjusted Forecast		
	2009A	R ²	2010E	2011E	2012E	YoY	2010E	2011E	2012E	2010E	2011E	2012E
Rest of WW	-11.0%	94%	1.8%	1.7%	1.7%	2.0%	2.0%	2.0%	2.0%	3.7%	2.0%	2.0%
China	-30.2%	97%	8.9%	8.6%	8.4%	10.1%	9.5%	9.4%	9.2%	4.0%	9.4%	9.2%
Rest of Eastern Bloc	21.9%	73%	6.4%	6.0%	5.8%	2.5%	4.4%	4.3%	4.1%	8.2%	4.3%	4.1%

Source: Brook Hunt, ICSG, RBC Capital Markets estimates

Average Year-over-Year Growth: For the longer term (post-2012), we have based our forecasts of demand on the historical CAGR for demand. Exhibit 50 illustrates our assumptions for key regions, representing 74% of global demand in 2009. For China, we have estimated long-term growth in demand to be 75% of the historical CAGR, or 7.0% per annum.

Exhibit 50: Long-Term Growth Rates for Consumption ('000 tonnes)

	2009 Demand	Start Date	CAGR
USA	1,629	1985	-0.6%
Japan	876	1985	-1.5%
South Korea	901	1999	1.3%
Taiwan	494	1999	-2.8%
India	610	1985	8.7%
Germany	1,134	1985	1.7%
France	310	1985	-0.8%
Spain	338	1985	4.6%
China	6,954	1985	10.1%
Total	13,245		
Global Total	18,016		
% of total	74%		

Source: Brook Hunt, ICSG, RBC Capital Markets estimates



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