#### Market analysis

**President & CEO Jan Johansson** 



Mines



**Smelters** 



Zinc

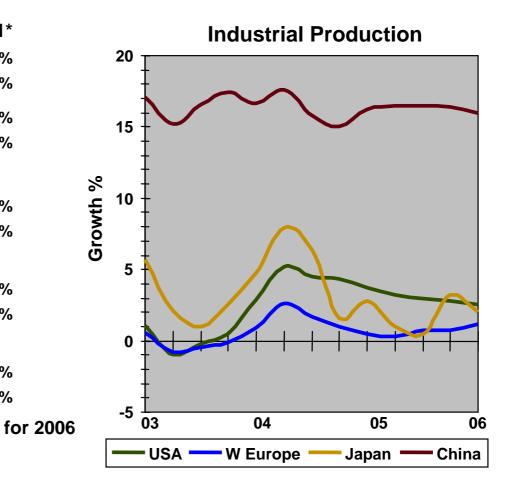


Copper



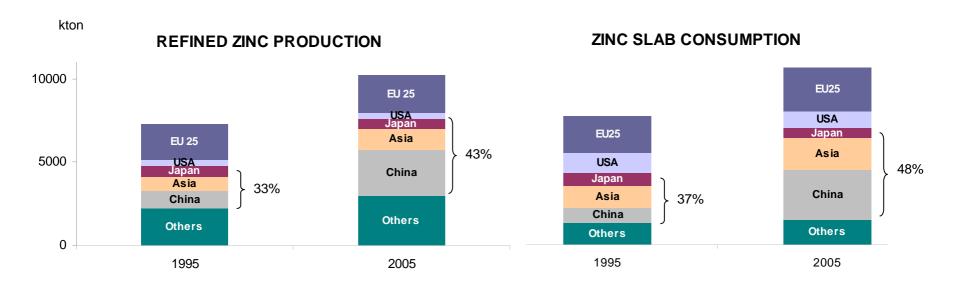
## Continued strong growth in China – lower growth rate in the rest of the world

■ Global 2	006 Q1*
- Cu-consumption	5.5 %
- Cu-production	7.3 %
- Zn-consumption	3.4 %
- Zn-production	1.1 %
■ USA	
- Cu-consumption	9.9 %
- Zn-consumption	0.0 %
<ul><li>Europe</li></ul>	
- Cu-consumption	2.6 %
- Zn-consumption	0.0 %
■ China	
- Cu-consumption	10.6 %
- Zn-consumption	9.5 %
<ul> <li>Continued good forecas</li> </ul>	t for 20



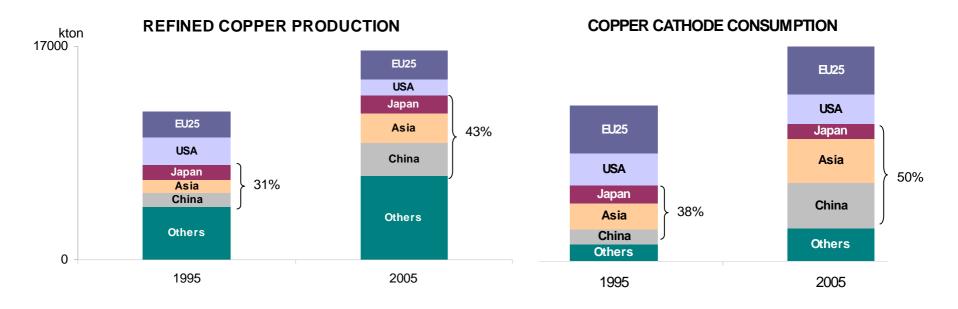


### Zinc production and consumption 1995 vs 2005



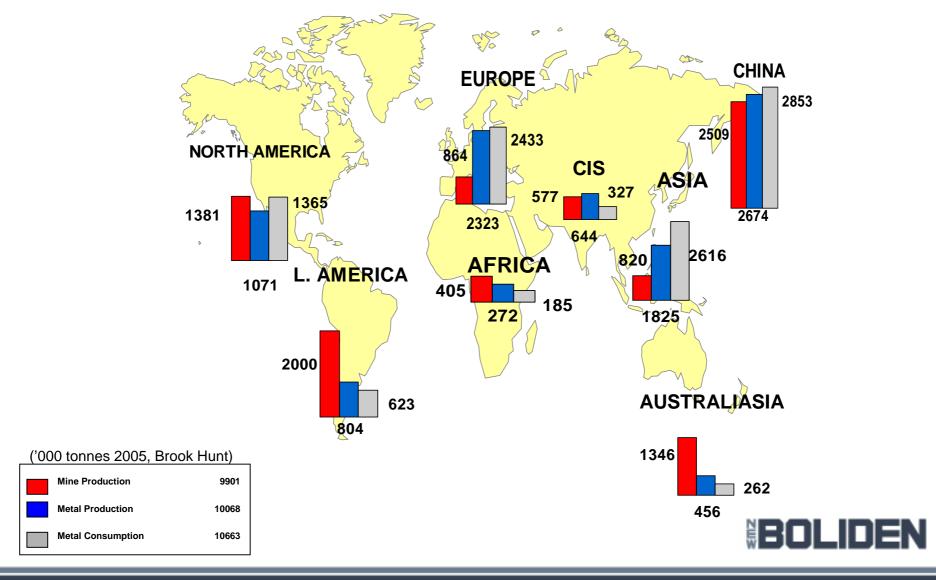


### Copper production and consumption 1995 vs 2005

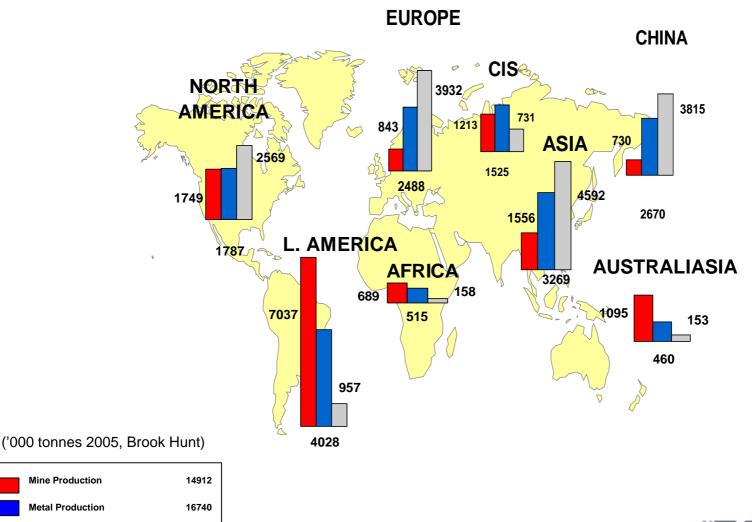




## China and the rest of Asia together represent 43% of global zinc metal production and 48% of consumption



#### China and the rest of Asia together represent 43% of global copper metal production but 50% of consumption

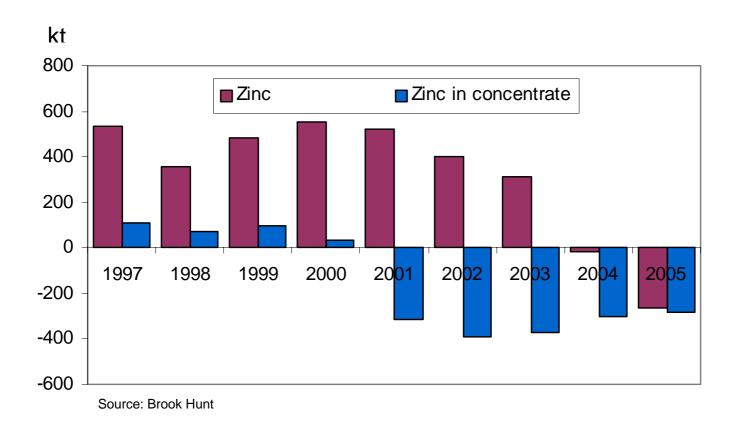


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Mine Production

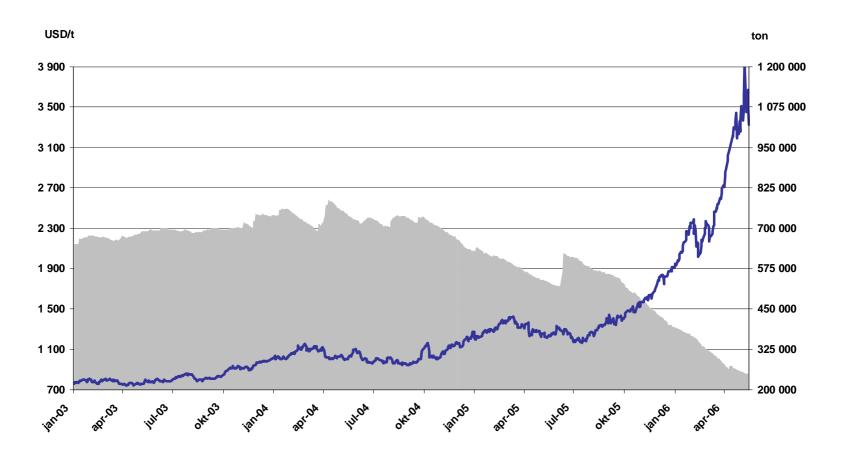
**Metal Consumption** 

#### China refined zinc and concentrate trade



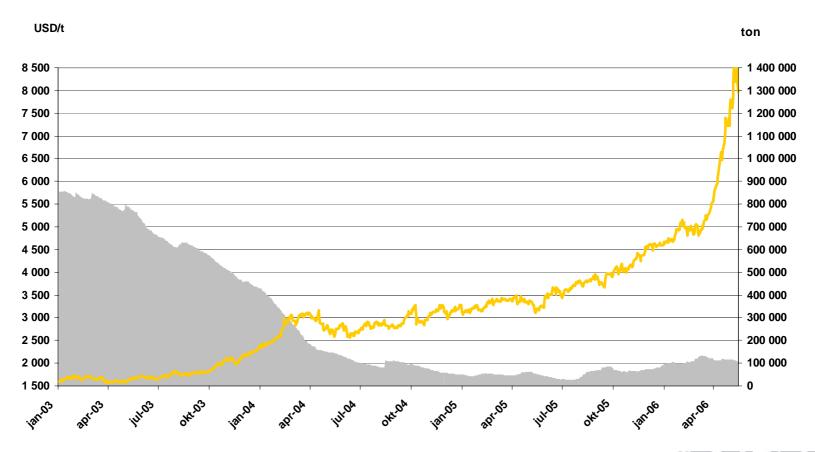


#### **LME Zinc Price and Stocks**





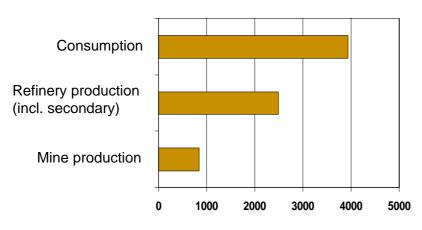
### **LME Copper Price and Stocks**



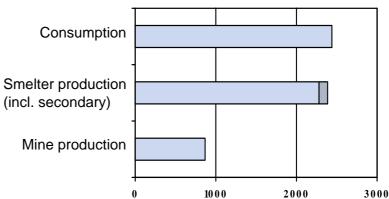


#### **Europe copper and zinc balance 2005**

#### **Europe copper balance (kt Cu)**



#### **Europe zinc balance (kt Zn)**



#### Copper balance and market in Europe

- Depending of import of copper concentrate and copper cathodes.
- Consumption of copper is far beyond production capability.

#### Zinc balance and market in Europe

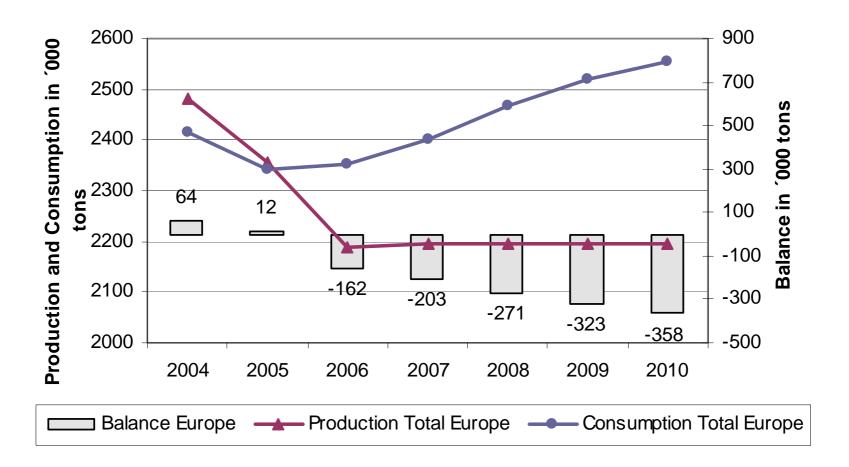
- Depending of import of zinc concentrate.
- Consumption and production of zinc, balanced by imports mainly from Namibia (Skorpion material)



Expected effects from 2005 closures

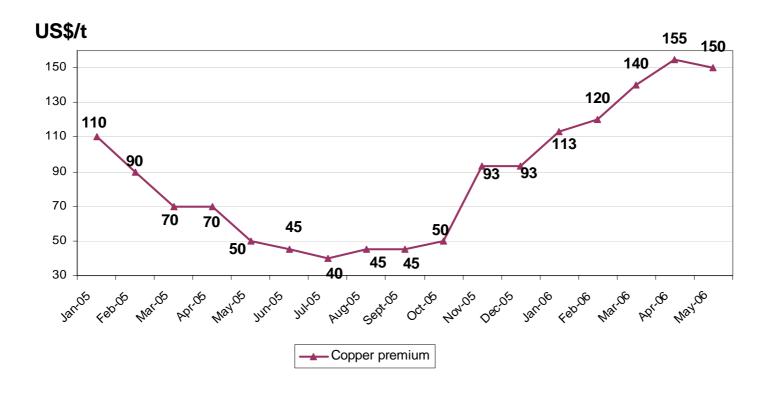


#### Increased demand for zinc import in Europe





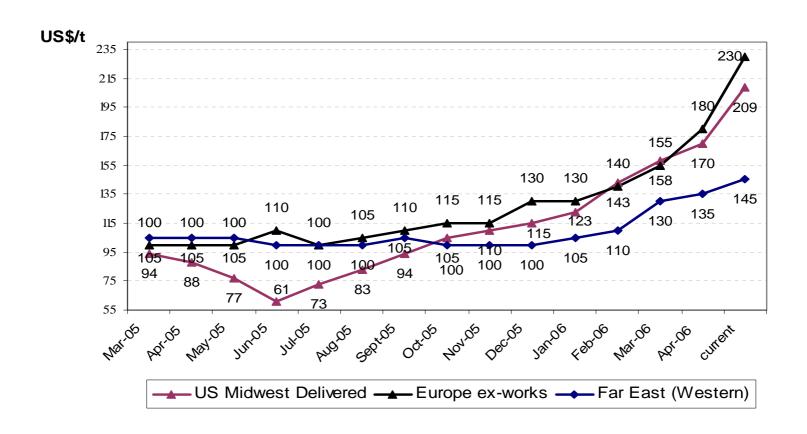
#### Increased copper metal premium





Source: Brook hunt

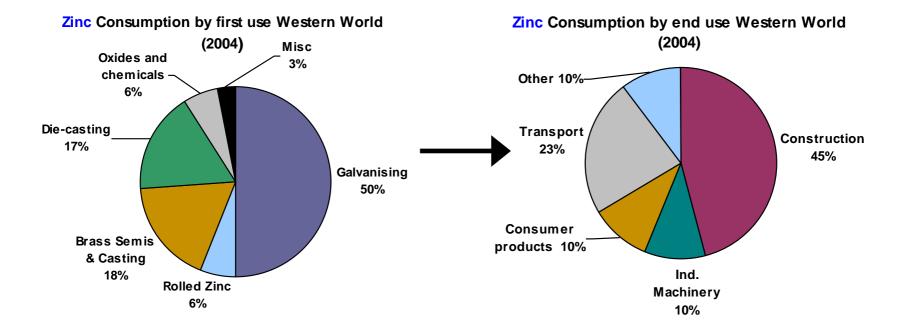
#### Increased zinc metal premium



Source: CRU Monitor Zinc



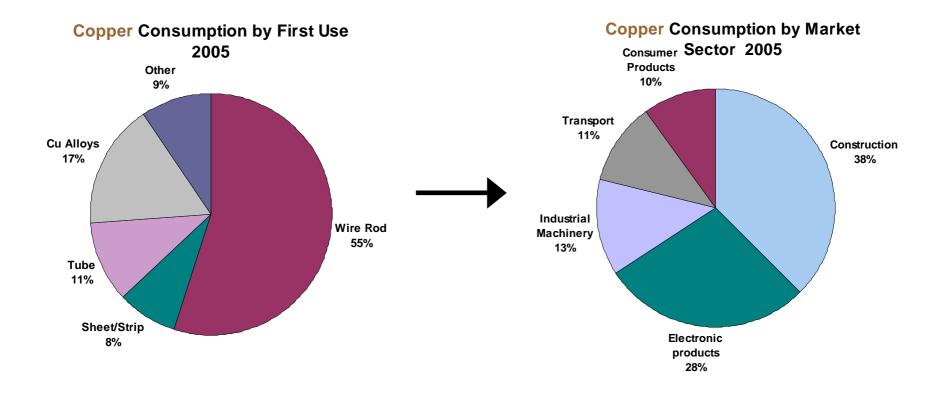
## The galvanizing industry is the biggest customer of zinc metal



Source: Brook Hunt



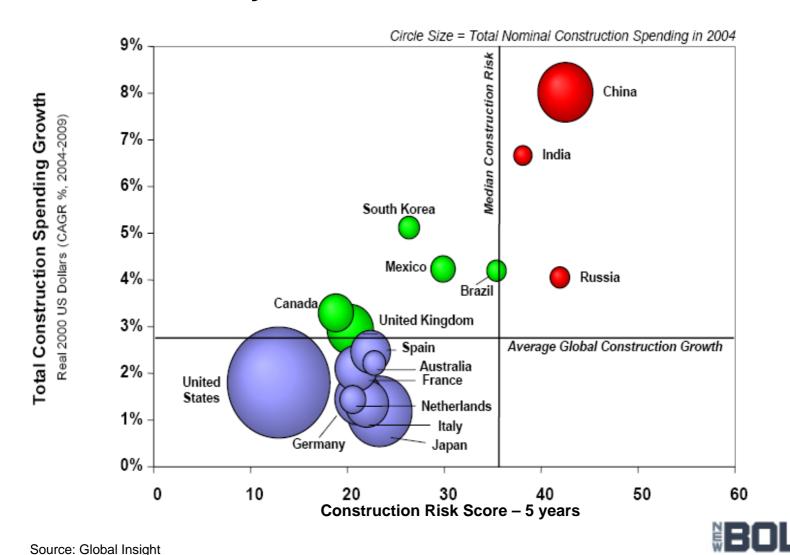
## Boliden's major copper customers are found in the wire rod sector, where a premium is paid for quality.



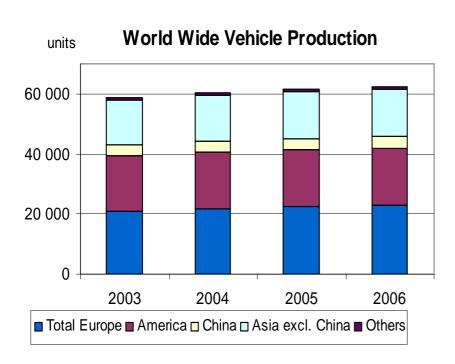


Source: Brook Hunt

# Boliden's customers are located in north-western Europe (Nordic Countries, UK, Germany, France) – markets with big volumes in construction activity – now and in the future

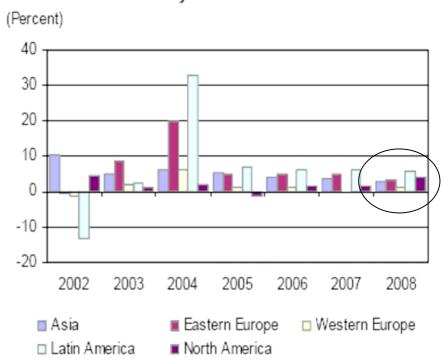


#### Europe has been and will stay an important player in the automotive industry – an important factor for Boliden's customers



Vehicles: passenger + utility cars

#### Motor Vehicle Industry Growth



source: GI, Metal Bulletin's 10th International Galvanizing & Coil Coating Conference, Oct 2005

## Despite many different replacement products, zinc is still very competitive

- Aluminum, e.g.. in car bodies gives weight reduction (energy savings) and corrosion resistance. But automotive industry can't change fast and demands heavy investments.
- Minimal risk of substitution in European galvanizing market.
   Painting could be used instead of galvanizing and is short term financial beneficial.
- Plastics, e.g. pipes, handles etc.
- Wood in construction details.
- No immediate risk of substitution for zinc die-casting, but there is a risk of move to low cost countries.



# Threats to the copper market exist, but there are few real replacement products for Boliden high-grade copper in the coming years

- Reduced use of copper by the power cable industry in favour of aluminium.
- Reduced use of copper for tubes in favour of plastic materials.
- Outsourcing of brass production from EU to Far East will give less raw material supply regarding supply of copper/zinc bearing ashes.
- Production of wire rod cable outsourced to Far East due to lower labour cost leads to higher freight cost for EU cathode producers.



- Risk for substitutes in vehicle heat exchanger.
- To expensive to use as roofing sheets or aesthetic use.
- According to CRU, less than 1% of copper could be substituted in the next year.



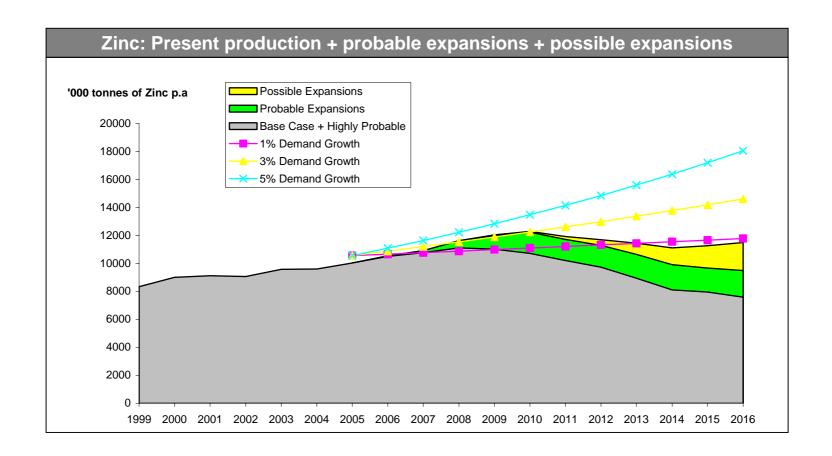
#### Price effects on end products are limited



Value of zinc and copper content < 1% of price of a new car</li>



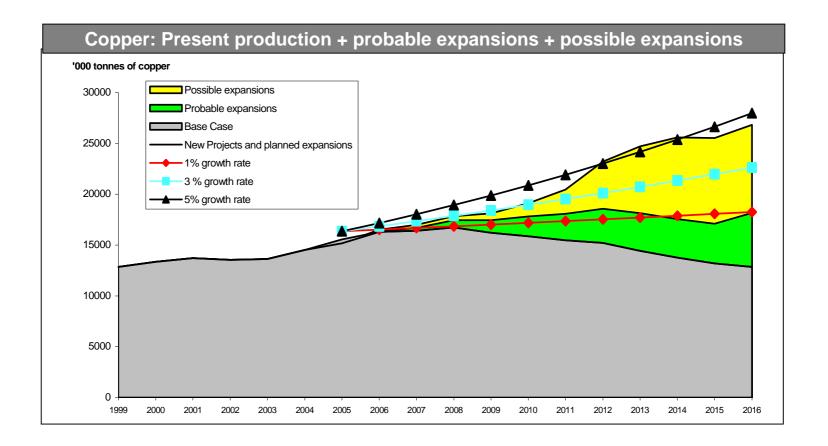
### Shortage of zinc concentrate?



Source: CSFB, Brook hunt



### Shortage of copper concentrate?



Source: CSFB, Brook hunt

