Base Metal Complex

- Also known as Non-Ferrous complex.

- Includes COPPER, ALUMINIUM, LEAD, NICKEL & ZINC.

- Extensive industrial applications and usage.

- Availability is region specific while the usage is worldwide. Hence, price discovery is global.

- This complex has attracted the attention of the investment community giving different dimension to their importance.
About Copper

- Wide application primarily due to its good conductivity and corrosion free nature.

- Industrial consumption pattern -

- From Mines in form of Concentrates to Smelters, who refine and create usable metal form. Typically, Miners and Smelters and different entity.
About Aluminum

- The third most abundant element in the Earth's crust – 7.3% by mass
- 2-3 Tons Bauxite = 1 Ton of Alumina = 0.5 Ton Aluminium metal
- World Aluminium production : 31 Million Tonnes. Typically integrated plants
- Usage –
  - In Building & Construction
  - Electrical (overhead) cables
  - Transportation
  - Packaging, Paints and Household applications.
About Zinc

- Zinc’s largest single use is in corrosion protection.
- Galvanizing is the main method of protection against corrosion of steel.
- Brasses are alloys of copper and zinc, and they have good mechanical properties and good corrosion resistance.
- Die castings are precision castings that can be mass produced.
- Zinc oxide has its main use in tyres and rubber products.
About Nickel

- Stainless Steel sector is biggest consumer of Nickel, as combining Nickel with steel significantly increases the durability and strength.
- Industrial consumption pattern -
  - Manufacturing of stainless steels
  - Other steel and non-ferous alloys & super alloys
  - Electro-plating
  - Coins & Nickel Chemical
About Lead

- Highly malleable, highly dense, soft & ductile
- Corrosion resistant but poor conductor of electricity
- Lead’s uses include
  - Prime use in Batteries
  - Piping: Plumbing, hence the word Plumber
  - Petroleum Products
- Substitution by Plastics in construction, cable wrap
- Toxicity has reduced uses in piping, petroleum products
Why are MCX contracts most suitable!!

Depth and Correlations
MCX Copper VOLUME-OI-PRICE

MCX Copper Volume & Open Interest

- Price in Rs/kg
- OI & Vol in MTs

Volume (MTs)  Open Interest (MTs)  Price

Graph showing the volume and open interest of MCX Copper alongside the price from April 2008 to August 2011.
MCX Nickel VOLUME-OI-PRICE

MCX Nickel Volume & Open Interest

Price in Rs/kg

Volume (MTs), Open Interest (MTs), Price

Selected Business
Superbrand
Industry Validated

www.mcxindia.com
MCX Lead VOLUME-OI-PRICE

MCX Lead Volume & Open Interest

Price in Rs/kg

Volume (MTs)  Open Interest (MTs)  Price

Apr-08  Jun-08  Aug-08  Oct-08  Dec-08  Feb-09  Apr-09  Jun-09  Aug-09  Oct-09  Dec-09  Feb-10  Apr-10  Jun-10  Aug-10  Oct-10  Dec-10  Feb-11  Apr-11  Jun-11  Aug-11

-30000  0  20000  40000  60000  80000  100000  120000  140000  160000  180000  200000  220000  240000  260000  280000  300000  320000

www.mcxindia.com
<table>
<thead>
<tr>
<th>PRICE</th>
<th>VOLUME</th>
<th>OI</th>
<th>TREND</th>
</tr>
</thead>
<tbody>
<tr>
<td>🔼</td>
<td>🔼</td>
<td>🔼</td>
<td>STRONG BULLISH</td>
</tr>
<tr>
<td>▼</td>
<td>🔼</td>
<td>🔼</td>
<td>STRONG BEARISH</td>
</tr>
<tr>
<td>▼</td>
<td>▼</td>
<td>▼</td>
<td>LONG DILUTION</td>
</tr>
<tr>
<td>🔼</td>
<td>▼</td>
<td>▼</td>
<td>SHORT COVERING</td>
</tr>
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</table>
We can’t delete VOLATILITY..

<table>
<thead>
<tr>
<th>Metal</th>
<th>2006 *</th>
<th>2007 *</th>
<th>2008 *</th>
<th>2009 *</th>
<th>2010*</th>
<th>Range during 5 yrs ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper</td>
<td>33.60</td>
<td>33.00</td>
<td>46.10</td>
<td>39.30</td>
<td>23.24</td>
<td>2770 – 9739</td>
</tr>
<tr>
<td>Lead</td>
<td>41.60</td>
<td>44.10</td>
<td>59.60</td>
<td>50.60</td>
<td>32.51</td>
<td>823 – 3980</td>
</tr>
<tr>
<td>Nickel</td>
<td>44.60</td>
<td>43.50</td>
<td>57.20</td>
<td>51.50</td>
<td>30.32</td>
<td>8810 – 54200</td>
</tr>
<tr>
<td>Zinc</td>
<td>43.50</td>
<td>39.30</td>
<td>46.70</td>
<td>41.90</td>
<td>30.43</td>
<td>1042 – 4620</td>
</tr>
<tr>
<td>Aluminium</td>
<td>28.30</td>
<td>21.00</td>
<td>30.90</td>
<td>33.40</td>
<td>22.42</td>
<td>1254 - 3292</td>
</tr>
</tbody>
</table>
Copper MCX & LME Correlation

Copper MCX Near Month & LME Cash
Correlation 99.79%
Correlation

Aluminum MCX Near Month & LME Cash
Correlation 99.43%

Nickel MCX Near Month & LME Cash
Correlation : 99.82%

Lead MCX Near Month vs LME Cash
Correlation 99.66%

Zinc MCX Near Month & LME Cash
Correlation 99.74%
Price Influencing Factors

- Demand & Supply – Producer & End user.
- Global growth and demand in major consuming countries.
- Economic factor – Slowdown / Recession.
- Geographical/Political factor – Flood, Earthquake, Strikes, Govt Policy.
- Market news.
- Movements in LME.
- Prices of alternative metals.
- New Mines discovery.
Aluminum Monthly Price Movements

Aluminium Monthly Price Movement

Monthly QMANc1

Price

INR

130

120

110

100

90

80

70

30/11/2005 - 31/07/2011 (DOM)

2006 Q1 Q2 Q3 Q4 2007 Q1 Q2 Q3 Q4

2008 Q1 Q2 Q3 Q4 2009 Q1 Q2 Q3 Q4

2010 Q1 Q2 Q3 2011
Copper Monthly Price Movements
Lead Monthly Price Movements

Lead Monthly Price Movement

Monthly QMLDc1

30/04/2006 - 30/06/2011 (BOM)

Price
INR

130
120
110
100
90
80
70
60
50
40
30
20
10
0

2006 | 2007 | 2008 | 2009 | 2010 | 2011

Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2
Nickel  Monthly Price Movements
Current Concerns

- Inflation in China
- European Debt Crisis.
- Currency War
- Situation in Middle East Countries
- Auto, Aviation & Housing Sector
- Quantitative easing
- Tight Supply of Commodities – especially copper
- Base metals Inventories
Copper Inventory
Aluminium Inventory
Lead Inventory
Nickel Inventory
## Base Metals: Key Trading Specifications at a Glance

<table>
<thead>
<tr>
<th></th>
<th>Copper</th>
<th>Zinc/ Zinc Mini</th>
<th>Aluminum / Alumini</th>
<th>Nickel</th>
<th>Lead/ Lead Mini</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trading unit</strong></td>
<td>1 MT</td>
<td>5 MT/1MT</td>
<td>5 MT/1MT</td>
<td>250 KG</td>
<td>5 MT/1MT</td>
</tr>
<tr>
<td><strong>Quotation base</strong></td>
<td></td>
<td></td>
<td><code> / kg</code></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Contract Month</strong></td>
<td>Bi-Monthly</td>
<td></td>
<td>Monthly</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Expiry date</strong></td>
<td></td>
<td></td>
<td>Last day of month</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tick Size</strong></td>
<td>5 paisa per kg</td>
<td>5 paisa per kg</td>
<td>5 paisa per kg</td>
<td>10 paisa per kg</td>
<td>5 paisa per kg</td>
</tr>
<tr>
<td><strong>Profit/loss on 1 ` movement</strong></td>
<td>1000</td>
<td>5000 /1000</td>
<td>5000 /1000</td>
<td>250</td>
<td>5000 /1000</td>
</tr>
<tr>
<td><strong>Initial margin</strong></td>
<td></td>
<td></td>
<td>Minimum 5 % or based on SPAN whichever is higher</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Max OI for client</strong></td>
<td>5000 MT</td>
<td>3600 MT</td>
<td>15000 MT</td>
<td>600 MT</td>
<td>1800 MT</td>
</tr>
<tr>
<td><strong>Max OI member</strong></td>
<td>25000 MT or 15% of market OI whichever is higher</td>
<td>18000 MT or 15% of market OI whichever is higher</td>
<td>75000 MT or 15% of the market OI position whichever is higher</td>
<td>3000 MT or 15% of the market OI position whichever is higher</td>
<td>9000 MT or 15% of the market OI position whichever is higher</td>
</tr>
</tbody>
</table>
# Base Metals: Key Trading Specifications at a Glance

<table>
<thead>
<tr>
<th>Max order size</th>
<th>Copper</th>
<th>Zinc/ Zinc Mini</th>
<th>Aluminum / Alumini</th>
<th>Nickel</th>
<th>Lead/ Lead Mini</th>
</tr>
</thead>
<tbody>
<tr>
<td>70</td>
<td>100</td>
<td>150</td>
<td>24</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

| Daily Price limit | 4% |

| Delivery Logic | Both Options |

## Due Date Rate
- **Copper**: Due Date Rate is calculated on the Last Day of the Contract expiry, by taking the international spot price of Copper and it would be multiplied by Rupee-US$ rate as notified by the Reserve Bank Of India.
- **Zinc/Zinc Mini**: Due Date Rate is calculated on the Last Day of the Contract expiry, by taking the international spot price of Zinc and it would be multiplied by Rupee-US$ rate as notified by the Reserve Bank Of India.
- **Aluminum/Aluminum**: Due Date Rate is calculated on the Last Day of the Contract expiry, by taking the international spot price of Aluminum and it would be multiplied by Rupee-US$ rate as notified by the Reserve Bank Of India.
- **Nickel**: Due Date Rate is calculated on the Last Day of the Contract expiry, by taking the international spot price of Nickel and it would be multiplied by Rupee-US$ rate as notified by the Reserve Bank Of India.
- **Lead/Lead Mini**: Due Date Rate is calculated on the Last Day of the Contract expiry, by taking the international spot price of Lead and it would be multiplied by Rupee-US$ rate as notified by the Reserve Bank Of India.
IMPORTANT WEBSITES

- www.icsg.org
- www.copper.org
- www.metalbulletin.com
- www.basemetals.com
- www.ilzsg.org
- www.ilzro.org
- www.gfms-metalsconsulting.com
- http://metalprices.com
- www.forexfactory.com
THANK YOU

Multi Commodity Exchange of India Limited is proposing, subject to market conditions and other considerations, a public offer of equity shares by way of an offer for sale and has filed a Draft Red Herring Prospectus ("DRHP") with the SEBI. The DRHP is available on the websites of SEBI at www.sebi.gov.in and the book running lead managers at www.edelcap.com, http://www.online.citibank.co.in/rhtm/citigroupglobalscreen1.htm and www.morganstanley.com/indiaofferdocuments. Investors should note that investment in equity shares involves a high degree of risk and for details in relation to risk factors, please see the section titled "Risk Factors" in the DRHP.

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