



Price Risk Management Tools for the Steel Industry

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Paper Presented In : 7th Asian Steel Conference, 2007

Agenda

- Introduction to Futures
- Need for hedging mechanism
- Benefits of futures trading for steel value chain participants
- Potential for Futures Trade on MS Ingots
- MS Ingots Contract Specifications
- MS Ingots trading highlights

Introduction to Futures

Futures Contracts are :

- agreement between two parties to buy and sell goods/materials of fixed quantity ; at a fixed rate;
- of a pre-designated quality;
- for delivery on a future fixed date at a fixed location;
- through the medium of an exchange
- Futures are exchange traded version of forward contracts
- Futures contract are standardised as per
 - Quantity
 - Settlement
 - Quality (Grade)
- Futures contracts are based on standard grade
- The Futures price are as of a base centre
- Futures can be traded by paying margin
- The settlement price in a futures contract can vary
 - As per variations in grades
 - As per multiple delivery centres
- The commodities being delivered by sellers are subject to assaying/quality check
- Delivery costs related to assaying, logistics are also characteristics of futures trading
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Important Points for Physical Delivery in a Futures Contract vis-à-vis Cash Settlement

- Pay upfront the entire amount to the exchange after expiry date
- Take delivery from the designated warehouse
- Associated delivery costs plus inter state levies
- Only standard/specified grade available

Three Types of Players on Commodity Futures Exchanges

- Hedgers
- Arbitrageurs
- Investors

Steel - Need for Hedging Mechanism

- Characterized by high volatility during the last 4 years
- Steel market expected to remain volatile
- Participants need a mechanism to reduce price risk
- No hedging mechanisms available
- Steel futures can help mitigate price risk
- Steel futures will give an indication of trend in steel prices

Steel Contracts on NCDEX

- Mild Steel (MS) Ingots Futures Contracts

Why Hedge on MS Ingots ?

- BASIC raw material for all long products
- High price co-relation with long product prices
- Large number of participants viz.; manufacturers, traders, re-rollers etc
- Fragmented market
- Annual production estimated at 8 MMT in India
- Annual Market size around Rs. 15,000 crores in India

Co-relation of MS Ingot Prices with Long Products Prices



Benefits of Futures Trading to Steel Value Chain Participants

- Price risk mitigation
- Leverage of working capital
- Indication of future trend in steel prices
- Elimination of counter party risk
- Spot Price dissemination
- Protection of margins

Benefits of Futures Trading to Steel Value Chain Participants Hedging Example

- ABC Steels is a manufacturer of Ingots in Mumbai
- Current rate of Ingots is Rs.21,900/MT @ Mumbai
- Current rate of sponge iron @ Rs.15,000/MT
- Dec 2007 futures is Rs. 22,350 at NCDEX
- ABC to sell one month MS Ingot futures on NCDEX
- Sponge iron reaches factory of ABC from Raipur after 8 days
- Ingot prices falls thereafter
- ABC to buy back Dec 2007 futures on NCDEX and square off its position
- ABC has effectively been able to hedge the sale value of Ingots by using NCDEX MS Ingot futures.

Benefits of Futures Trading

| Hedging Example # 1 | |
|---|---|
| Cash Market (Mumbai) | Futures Market (NCDEX) |
| Today : Ingot rate is Rs. 21,900/MT (Basic Rate) Sponge iron @ Rs.15,000/MT | Sell Dec 2007 MS Ingot futures contract at Rs.22,100/MT (basic rate) |
| On Dec 12, 2007: Sponge Iron Arrives at Factory Ingot rate falls to Rs. 21,600/MT | Buy back Dec 2007 MS Ingot futures @ Rs. 21,800/MT |
| Result | Gain on futures Rs. 300/MT Loss in Spot Ingot Rs. 300/MT Net gain/loss zero |

Benefits of Futures Trading to Steel Value Chain Participants

Hedging example:

- ABC Steels is a Rolling mill at Mumbai
- ABC produces 200 MT of TMT bars per day
- Steel market shows signs of bearishness
- The TMT bars prices expected to fall
- No booking of TMT by traders/consumers
- ABC to sell Dec 2007 MS Ingot futures on NCDEX
- The demand for TMT bars really goes down for a week
- TMT bars get stocked up at ABC as unsold inventory
- ABC to buy back Dec 2007 MS Ingot futures after a week
- ABC has effectively been able to hedge the value of TMT bars not being sold

Benefits of Futures Trading

| Hedging Example # 2 | |
|--|---|
| Cash Market (Mumbai) | Futures Market (NCDEX) |
| Today : TMT Bar Selling Rate ⊙ Rs. 25,000/MT (Basic Rate) Market expected to fall for a week | Sell MS Ingot Futures Contract at Rs. 22,100/MT (Basic Rate) |
| One Week Later : TMT Bar Selling Rate Falls to Rs. 24,700/MT Due to Weak Demand | Buy back Ingot Futures @ Rs. 21,800/MT |
| Result | Gain on Futures Rs. 300/MT Loss in Spot TMT Rs. 300/MT Net gain/loss zero |

Benefits of Futures : Summary

- Furnaces can hedge in respect of the raw material purchases viz.; sponge iron/scrap
- Furnaces can also hedge against fall in the value of Ingot prices
- Re-rolling Mills can hedge against rising prices of Ingots/Billets
- Re-rolling mills can also hedge against fall in finished steel prices
- Traders/Comm Agents can hedge against stock of finished steel/semis

Potential for Value Chain Participants on NCDEX

- MS Ingot market in India estimated at Rs.15,000 crores annually
 - There are six types of participants in the value chain
 - Raw Material Manufacturers
 - Semi finished/finished steel makers
 - Re Rolling Mills
 - Traders
 - Consumer Industry
 - Investors
- Potential trade in the futures segment can be six times present market i.e. Rs. 90,000 crores

Design of Contracts on NCDEX

The process involves :

- Forming a Product Committee which involves participation from the entire value chain
- Identification of the most suitable grade for trading purpose by the Product Committee
- Identifying locations for additional delivery centers

Contract Specifications – MS Ingots

- Basis : Ex-Warehouse at Ghaziabad (exclusive of all taxes and duties)
- Unit of trading : 10 MT
- Delivery unit : 10 MT
- Quotation/base value: Rs. per MT

Contract Specifications – MS Ingots

- Quality specification :
- Size : 3 1/2" * 4 1/2"
- Carbon content : upto 0.3%
- Manganese : min of 0.40%
- Sulphur : 0.06% max
- Phosphorus : 0.07% max
- Ingots without hollowness, piping, refractories and rising
- Heat no. to be mentioned on each ingot

Contract Specifications – MS Ingots

- Tick size: Re. 1/- per Ton
- Quantity variation : +/- 3% or 5 Tons, whichever is lower
- Additional Delivery centers at Mandi Gobindgarh, Mumbai, Kolkata, Raipur and Bhiwadi
- Duration : One to Five months

Contract specifications – MS Ingots

- Delivery specification : Sellers option
- Premium/Discount on Location

NCDEX MS Ingots Trading Highlights

- Date of launch : March 11, 2005
- Avg. trading daily : 7,000 MT Volumes
- Highest daily traded : 67,000 MT on March 30, 2006
- Open Interest : 20,000 MT as on date
- Wide participation from steel trading areas
- Ideal platform for steel industry participants to hedge their price risk



What NCDEX Steel Ingot Contract Offers

- Efficient platform to manage steel price risk
- Reliable benchmark for spot contracts
- Ideal proxy for different grades / products of steel
- Correlation coefficient for HR coil & MS ingot over five years is 0.9459
- Delivery based contract settlement
- Efficient price discovery mechanism