Managing Risk

Ram Kumar Kakani

Hedging

- Firms have risk: Business Risk, Financial Risk
- Goal is to eliminate them
- How?
- One way is … Hedging & Forward/ Futures contracts
- Hedging involves taking one risk to offset another risk
- Example – Levers (Tea), Hindalco (Aluminium), Arvind Mills (Cotton), Ahmed Oil Mills (Refined Oil)
- Forecasted income & sales volume is set by using a fixed selling price
- Changes in cost can impact these forecasts

Hedging - Commodity Futures

- If Dhruva is HLL’s tea procurement manager and he likes today’s ‘unblended tea’ prices
- To fix HLL’s ‘unblended tea’ costs, he would ideally like to purchase all the raw tea requirement today. But, he cannot.
- He can, however, sign a contract to purchase tea at various points in the future for a price negotiated today
- This contract is called a ‘Forward Contract’
- Technique is called ‘Hedging’

Hedging

- Spot Contract – is a contract for an immediate sale and delivery of an asset
- Forward Contract – is a contract between two parties for the delivery of an asset at a negotiated price on a set date in the future
- Futures Contract – is a 'Forward Contract' *plus* there is an 'intermediary' that creates a standardized contract. Thus, the two parties do not have to negotiate the terms of the contract
- So, think of Hindalco making a deal in London Metal Exchange. LME guarantees all trades and provides a secondary market.

Instrument Type	Underlying
FUTSTK	RENUKA

Price Information

Open Price	176.25
High Price	188.15
Low Price	176.25
Last Price	**186.1**
Prev Close	175.65
Close Price	186.1
Change from prev close	10.45
% Change from prev close	5.95
VWAP	183.28
Underlying Value	185.5
Number of contracts traded	6429
Turnover in Rs. Lakhs	29457.68
Open Interest	20440000
Change in Open Interest	695000
% Change	3.52

Order Book

Buy Qty	Buy Price	Sell Price	Sell Qty
2500	186.1	186.3	7500
2500	186.05	186.4	17500
15000	186	186.45	10000
5000	185.9	186.5	42500
30000	185.8	186.55	12500
795000	Total Buy Qty	Total Sell Qty	**1025000**

Cost of Carry

	Best Buy	Best Sell	Last Price
Price	186.1	186.3	186.1
Cost Of Carry	10.72	14.28	10.72

Expiry Date	Option Type	Strike Price	Market Lot
25-Feb-10	-	-	2500

Other Information

Settlement Price	Daily Volatility
186.1	3.03

Annualised Volatility	Client Wise	Market
57.88	2076980	41539614

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Types of Futures

- Commodity Futures – Crude Oil (Dubai), for most farm products (Chicago), Palm Oil (Malaysia), Soya (Indore), Castor Oil (Mumbai), Cotton (Ahmedabad), for most metals (London) …
- Rice, Wheat, Sugar, etc. … also happened in MCX, NCDEX, and other commodity exchanges
- Financial Futures – Treasury Bills (on Interest Rate), Foreign Currency (on Exchange Rate), Common Equity Shares (of Blue Chips),
- Index Futures – NASDAQ Futures, S & P 500, Value Line Index, Nifty Futures, Sensex Futures

Futures Contract Concepts

- Not an actual sale
- Always a winner & a loser
- Futures are settled ‘every day’ (marked to market)
- Hedge – You use it to eliminate risk by locking in prices
- Speculation – You use it for gambling
- Tip: In Futures market, small change in price can cause a big loss
- On the supplier side who can hedge in the futures market?

Futures Contract Concepts

- As in options, same jargons are used (long and short)
- Margin – post a partial amount
- The amount (percentage) of a Futures contract value that must be on deposit with a broker
- In June, farmer Zalmon expects to harvest 10000 bags of groundnut during the month of August. In June, the September groundnut futures are selling for \$2.94 per bag (1 bag = 10 kgs). Zalmon wants to lock in this price.
- Show the transactions if the September spot price drops to \$2.80

Swaps

- Official Birth '1981'
- An agreement between two firms
- In which each firm agrees to exchange
- the Interest Rate Characteristics
- of two different financial instruments of identical principal
- Rarely done direct, banks are middlemen, bank profit is part of the swap 'gain'
- Factors – Spread inefficiencies, same notation principal, only interest exchanged