Commodity Futures Market – a physical or electronic marketplace where traders buy and sell commodity futures contracts.

Commodity Futures Contracts – purchase and sales agreements having standardized terms, including quantities, grades, delivery periods, price basis, and delivery methods of a particular commodity.

Example of Commodity Futures Contract: The terms of Matif milling wheat futures contract

<table>
<thead>
<tr>
<th>Quantity:</th>
<th>50 MT EU origin wheat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade:</td>
<td>Sound, Fair, Merchantable Quality</td>
</tr>
<tr>
<td>Deliverable months:</td>
<td>Jan, March, May, August, November</td>
</tr>
<tr>
<td>Price basis</td>
<td>Euros per tonne</td>
</tr>
<tr>
<td>minimum price movement</td>
<td>25 euro cents (€12.50 per contract)</td>
</tr>
<tr>
<td>Delivery method:</td>
<td>Warehouse receipts in store silo Rouen</td>
</tr>
</tbody>
</table>

Long Position - a buyer of futures contracts. A long *position* is the number of purchase contracts held by the buyer.

Short Position - a seller of futures contracts. A short *position* is the number of sales contracts held by the seller.

Trade Volume – the number of transactions executed for a particular time period. The purchase by the buyer and sale by the seller of one futures contract equals a volume of ONE (Purchases and sales are not double counted.)

Open Interest – the number of futures contracts that exist on the book of the Clearinghouse. One purchase and sale, involving two transacting parties – constitutes an open interest of ONE. The number of purchase and sale contracts is always equal.

Closing Price – the fair value price trading near the end of the trading session, as determined by the exchange.

Futures Delivery – the transfer of commodity ownership from the short (the seller) to the long (the buyer) during the delivery period. Ownership is transferred by the surrender of warehouse receipts or some other negotiable instrument specified by the contract.

Futures Expiration – the last trading day of futures contract.

Volatility – the variability of prices over time (historical) or projected (Implied) as determined by a formula.

Historical and Implied Volatility - Historical Volatility is a measure of price variability showing the variation or “dispersion” of prices from the mean over a chosen time period. Is calculated using a standard deviation
Implied Volatility is based on an option pricing model (such as Black Scholes) using premiums paid for at-the-money options on futures, that is – the option with a strike price closest to the futures price. For example, if maize is trading at $6.03/bushel, then IV is derived from the premiums paid for $6.00 strike. Historical Volatility is backward looking whereas Implied Volatility – often called the fear index – is forward looking.

Clearinghouse – the entity of a futures exchange that acts as counterparty to every transaction. The clearinghouse “clears” every transaction by becoming the buyer to the seller and the seller to the buyer. The clearinghouse always holds an equal number of buy and sell contracts. The purpose of the clearinghouse is to guard against default.

Default – the failure of a long or short to deposit sufficient margin with the clearinghouse. Also – the failure of a seller to make delivery or the failure of a buyer to take delivery of the commodity during the delivery period.

Position Limit – the maximum number of buy or sell contracts that a speculator can hold at one time in a futures contract. Normally, exchanges require position limits to be reduced as the delivery period approaches.

Hedging – buying or selling futures contracts against opposite cash positions. Producers that sell futures against anticipated harvest are called short hedgers. End-users, such as wheat millers that buy futures against anticipated inventory needs, are called long hedgers.

Example of milling wheat hedge - expected harvest of 200MT

<table>
<thead>
<tr>
<th>Month</th>
<th>Cash harvest price (€/MT)</th>
<th>Aug Futures price (€/MT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>March</td>
<td>Harvest bid is €220</td>
<td>Sell 4 contracts (200 MT) of Aug wheat @€230</td>
</tr>
<tr>
<td>July</td>
<td>Sell 200 MT to warehouse @€200/MT</td>
<td>Buy 4 contracts of Aug wheat @ €210/MT</td>
</tr>
</tbody>
</table>

Difference

-€20 (loss) +€20 (gain)

The cash sale of wheat @ €200 is improved by futures gain of €20

Net price of wheat realized = €220

Order Types

- Market order – an order to buy or sell at the market
- Limit order – an order to buy at a specific price (or lower) or to sell at a specific price (or higher)
- Stop order – an order to liquidate an existing position. A buy stop is entered against a short position at a price higher than current trading price; a sell stop is entered against a long position at a price lower than current trading price. Stop orders are intended to limit losses.

Option – the right to buy or sell a futures contract at a particular price. The right to buy a futures contract is called a Call Option. The right to sell a futures contract is called a Put Option. The price chosen for which to buy or sell is called the Strike Price. The price paid for the right is called the Option Premium.

Example of Call option order: Buy one contract November wheat call - €250 strike at €15 premium.

Forward Curves – the price structure of the nearby and successive months of a futures contract. Forward curves may exhibit backwardation, contango or both.
**Backwardation** - the condition in a futures market in which futures contracts are trading at successively lower prices over a particular time span – e.g. July corn = $6.70, Sept corn = $6.30, Dec corn = $6.10. Also called an inverted market, backwardated markets indicate low supply relative to demand.

**Contango** - the condition in a futures market in which futures contracts are trading at successively higher prices over a particular time span (the opposite from backwardation) - e.g. Sept wheat = $6.34, Dec wheat = $6.74, March wheat = $7.00. Also called a carry market, contango markets indicate adequate or ample supply relative to demand.

**CFTC Terminology**

**OTC Markets** – Over the Counter markets involving bi-lateral trades. OTC markets are largely unregulated – OTC trades are not cleared and may not be marked to market.

**Marked to Market** – a process whereby long and short positions are revalued to reflect their settlement price.

**Commitment of Traders Report**

Commodity Futures Trading Commission’s Commitment of Traders Report – a weekly report revealing the changes in the ownership composition for each commodity by the 3 largest trader categories – hedgers, swaps dealers, and managed money. These changes are expressed on the charts as a net length percentage of Open Interest. Because Open Interest contains an equal number of buy and sell contracts (referred to as long and short positions), the charts divide along a zero horizontal axis: lines above zero reflect net long positions and lines below reflect net short positions. A downward sloping line by one trader category reflects net selling and an upward sloping line reflects net buying. The 5 year history of the charts show that swaps dealers (green line), which are the main providers of index investment products, maintain relatively stable long positions, although this past year has witnessed a decline in their participation. Hedgers (blue line), such as producers, warehouse operators, refiners and exporters, tend to maintain short positions with high variability. Managed money (red line), the most active trading group, tends to trade in opposition to hedgers as evidenced by the near mirror image exhibited by the red and blue lines.

- **Producer/merchant/processors/end user** – generally called hedgers or commercials;
- **Swap dealers** – primarily banks that use futures to manage OTC risks associated with their swaps book or index fund offerings;
- **Managed money** – registered commodity trading advisors or commodity pool operators that actively trade on behalf of clients - frequently hedge funds;
- **Other reportables** – traders that do not fit in any of the other categories – large speculators.