

Technical Analysis

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Information

- Technical Analysis, NCR #217, Fact Sheet #20
- Agricultural Prices and Commodity Market Analysis by Ferris
- Agricultural Futures and Options by Purcell
- CRB Guide to Chart Analysis by Murphy, 800-621-5271
- How to get the most from Commodity Price Charts, 800-635-3931

Technical Analysis

- History repeats itself
- Let the market tell you
- Bar Charts common
- Use technical tools in combination with fundamental tools to determine direction of trend.
- Use technical tools to spot (even predict) changes in direction of price trends.
- Use technical tools in entry and exit decisions -- of key importance in timing of actions.

Technical Tools

- Charts
- Support and resistance
- Trendlines and channels
- Reversal patterns
- Continuation patterns
- Gaps
- Percentage retracements
- Volume and open interest
- Moving averages and oscillators

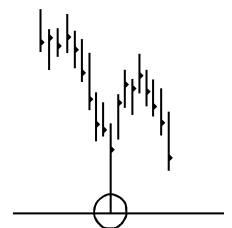
Charting

- The use of graphs and charts to analyze past price behavior with the hope of forecasting future price movement.

Technical Analysis: Support Planes

The support plane is drawn across past lows. The most important support plane is the plane across the life-of-contract lows. In a selective hedging program, the producer will consider lifting the short hedge on an approach to the plane. Unless the fundamental supply-demand balance has changed, the market is not expected to drop down through the support plane.

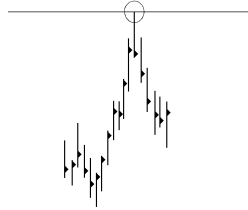
- SUPPORT PLANE DRAWN ACROSS PAST LOWS
- LIFT SHORT HEDGES ON DIP TOWARD THE PLANE
- MOST SUPPORT AT LIFE-OF-CONTRACT LOW



Technical Analysis: Resistance Planes

The futures market has a tough time going where it has not been or has not been recently. The "resistance plane" takes advantage of this. A horizontal plane is drawn across a past high, and the expectation is that the market will falter, **unless the fundamental supply-demand balance changes**, as it again approaches the plane. Short hedges are placed on a rally **toward** the plane. The most important resistance plane is the horizontal plane across the life-of-contract high.

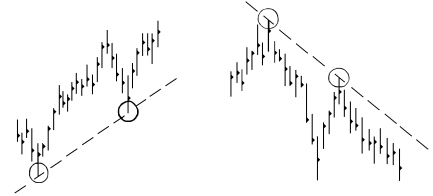
- RESISTANCE PLANE DRAWN ACROSS PAST HIGHS
- PLACE SHORT HEDGES ON RALLY TOWARD THE PLANE
- MOST RESISTANCE AT LIFE-OF-CONTRACT HIGH



Trend Line Mechanics

The uptrend line is drawn across two lows that are several trading days (preferably 10 or more) apart. The line should not be significantly steeper than the trends that appear via inspection of the price patterns on the chart. The downtrend line is drawn across two highs. The chart below demonstrates both.

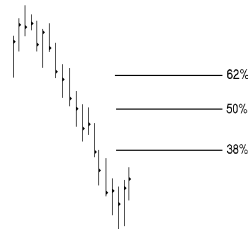
- UPTREND LINE DRAWN ACROSS TWO LOWS
- DOWNTREND LINE DRAWN ACROSS TWO HIGHS



Technical Analysis: Corrections

The futures market tends to move in "cycles." Generally, the market reacts -- and perhaps over-reacts -- and then "corrects" over at least part of the preceding price move. The tendency for the market to correct is reliable, and the markets tend to approach 38%, 50% or 62% corrections. Which level might be approximated will depend on the strength of the major move that is developing.

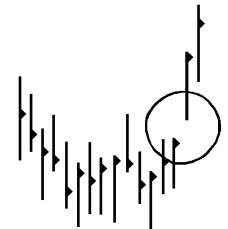
- MARKET MOVES IN CYCLES
- MARKET TENDS TO "CORRECT" THE PRECEDING MOVE IN PRICE
- CORRECTIONS TEND TO BE 38%, 50%, OR 62%



Technical Analysis: Chart Gaps

A gap occurs when the market dips or rallies so fast there is no trade within a price range. Generally, such events occur when a new piece of unexpected information shocks the market. The market typically comes back and tries to "fill" the gap in the following days. If the gap is not "filled" within 5-10 days after the gap is created, the gap can take on a special significance.

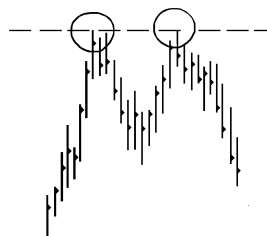
- CHART GAPS OCCUR IN FAST-MOVING MARKET
- MARKET TRIES TO "FILL" CHART GAPS
- IF THE GAP IS NOT FILLED, CAN TAKE, ON A SPECIAL SIGNIFICANCE



Technical Analysis: Double Tops, Bottoms

The top or bottom will occur along resistance and support planes respectively. When the market fails on a rally to a previous life-of-contract high, as we expect unless supply-demand fundamentals have changed, a "double top" is developed. A double bottom occurs along the plane at the old life-of-contract low, of course.

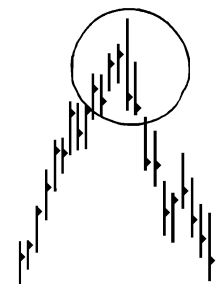
- DOUBLE TOP ALONG MAJOR RESISTANCE PLANE
- DOUBLE BOTTOM ALONG MAJOR SUPPORT PLANE
- RELIABLE FORMATIONS



Technical Analysis: Key Reversals

The reversal requires a new life of contract high (or low), an outside day (trading range exceeds top and bottom of the range for the previous day), and a lower close for a top. A very reliable (70-80%) formation.

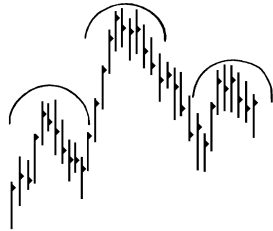
- NEW CONTRACT HIGH OR LOW
- AN OUTSIDE DAY
- A LOWER CLOSE (FOR A TOP)
- VERY RELIABLE FORMATION



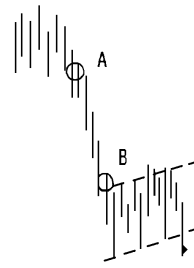
Technical Analysis: Head and Shoulder Formations

A widely observed formation, we often see head and shoulder tops and bottoms in the grains, oilseeds, and livestock markets. Once completed, the formations give relatively accurate measures of how far the market will move.

- WIDELY OBSERVED
- PROVIDES A PROJECTION OF HOW FAR THE MARKET WILL MOVE
- VERY RELIABLE FORMATION



Bear Flag

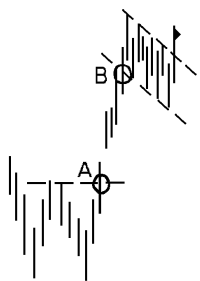


Ascending wedge or channel -- close below flag projects down the length of the flagpole, a distance AB

Projects to here.

Bull Flag

Projects to here



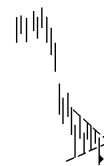
- Flags are:**
1. 70 to 80% or reliable
 2. Easy to see.
 3. Frequent in occurrence.
 4. Confirmed by low volume while flag is being formed.
 5. Formed usually from 5 to 15 days.

Descending wedge or channel -- close above flag projects up the length of the flagpole -- a distance AB.

Pennants



Bull Pennant



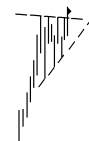
Bear Pennant

- Pennants are:**
1. 60 to 70% reliable.
 2. Without basis for projection -- tend to move out the way the market was moving coming into the pennant.
 3. Frequently seen in grains, livestock.

Triangles



Descending Triangle. Break out tends to be to downside.



Ascending triangle. Break out tends to be to the upside.



Symmetrical triangle. Break out tends to be in the direction when entered the triangle.

- Triangles are:**
1. Frequent.
 2. Longer in time, typically, than flags or pennants.
 3. 60 to 70% reliable.
 4. Breakout 2/3 across.

OPEN INTEREST & VOLUME IMPACT ON MARKET ACTION

OI	VOL	P	Implications
U		U	New buying - strong mkt
U		D	New selling - bear mkt
D		U	Short covering - weak mkt, downtrend ending
D		D	Long liquidation - weak mkt, uptrend ending
	U		Strong move in mkt, up or down, if price action occurs on high volume.
	D		Weak move in mkt, up or down, if price action is accompanied by low volume.

$$RSI = 100 \times \frac{U}{U + D}$$

U = Up average

D = Down average

Values above 75-80 indicate overbought zone

Values below 20-25 indicate oversold zone

$$\text{Stochastics Value} = 100 \times \frac{\text{last close} - 20 \text{ day low}}{20 \text{ day high} - 20 \text{ day low}}$$

%K = 3 day moving average of S.V.

%D = 3 day moving average of %K

Values above 75-80 indicate overbought zone

Values below 20-25 indicate oversold zone

Buy/Sell when %K crosses %D (both in zones)

ADX = Average Directional Movement Index

Move above 40 followed by downturn
indicates change in trend



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