ROLE OF TECHNICAL TOOLS

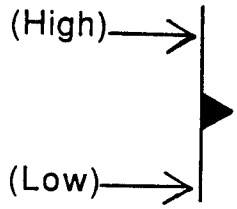
Use technical tools in combination with fundamental tools to determine direction of trend.

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 ANALYSIS

Bar Chart



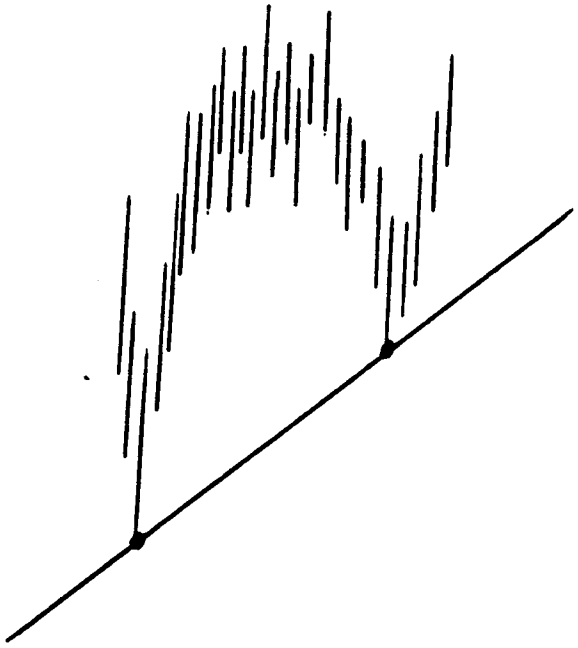
Closing or Settlement Price

Strong Close

Neutral Close

Weak Close

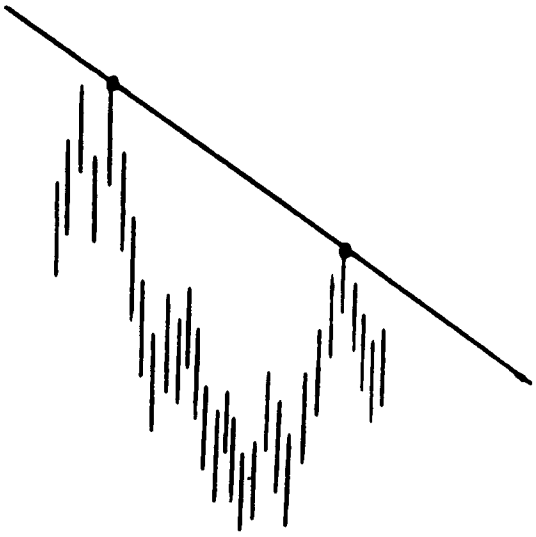
Trend Lines



Up Trend

1. Not steeper than 45°
2. Two lows at least 15 trading days apart

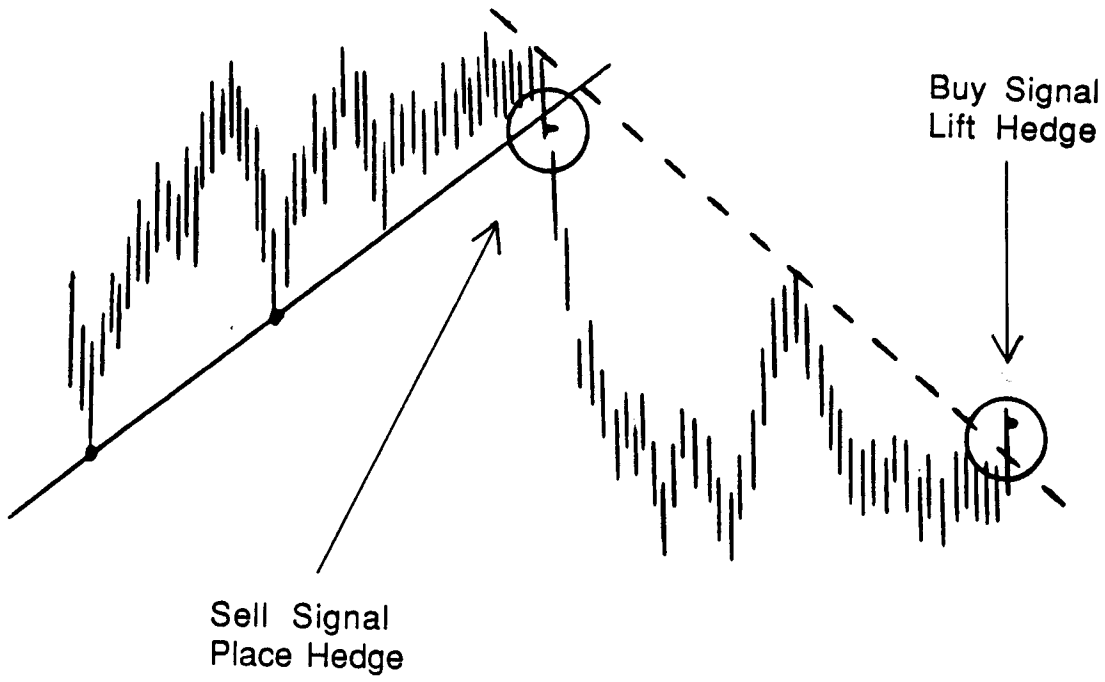
These rules keep you working with long term trends.



Down Trend

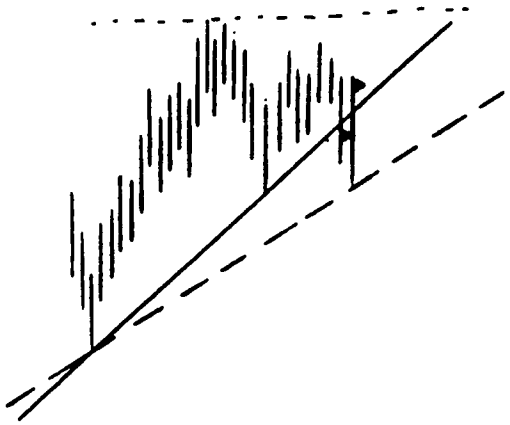
Same rules apply, but using 2 highs

Trend Line: Sell and Buy Signals

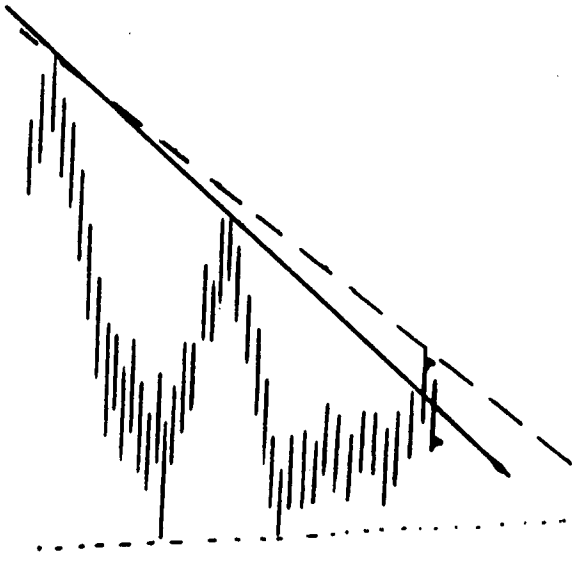


Can use trend lines to give sell and buy signals in a selective hedging program. If using a "conservative" hedging program, use sell signal to place the hedge but do not lift on the buy signal. If action is to be taken in the cash market, these same signals are relevant.

But it takes discipline and the markets will test your discipline!

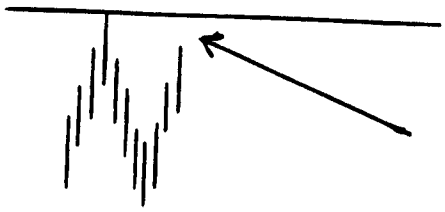


Close below trend line gives a sell signal -- but on close back above trend line, lift the hedge and redraw the trend line (dashed line). Alternatively, leave hedge on but buy back to lift the hedge on closes above the highs of 2 weeks earlier.

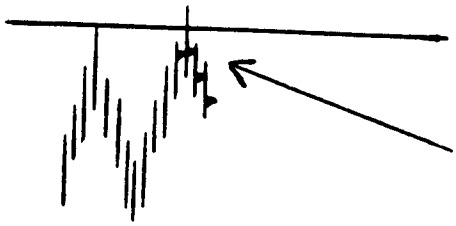


If the hedge was lifted, on a close below the trend line, replace the hedge and redraw the trend line.

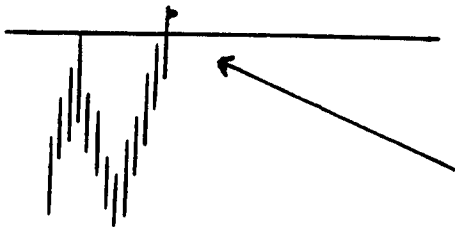
Resistance Planes



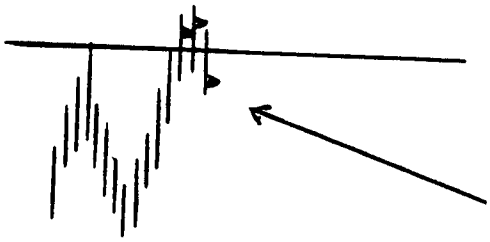
Place sell signal just below plane or wait until market "fails" and then sell -- a more conservative approach.



No close(s) above plane. Sell or place hedge signal was correct.

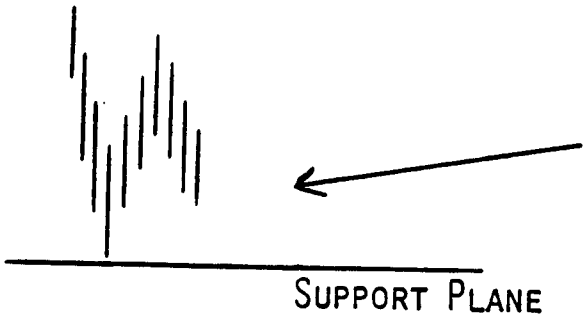


On close above plane, hedge should be bought back. If plane it at life of contract high, lift on second consecutive close above plane. Conservative hedger will answer margin call if market moves higher.

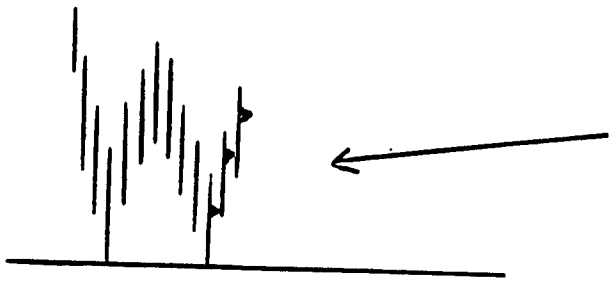


If market drops back and closes below resistance plane after even 2 consecutive closes above old contract high, replace the hedge -- the "up move" has failed.

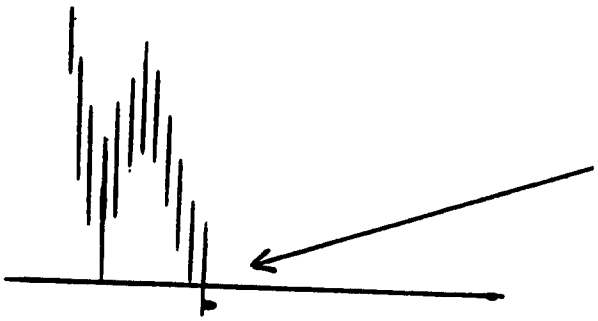
Support Planes



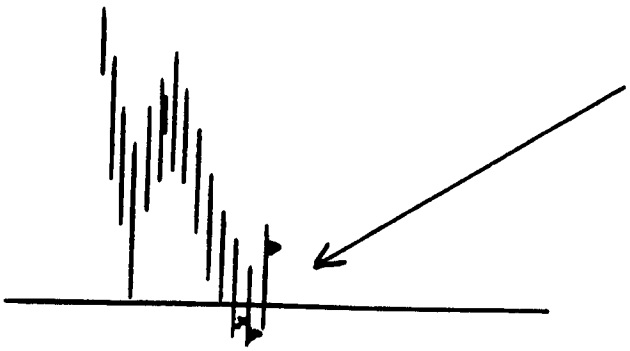
Lift hedges on dip toward support plane or place long hedge.



No close below plane. Decision to lift short hedge or place long hedge was correct.



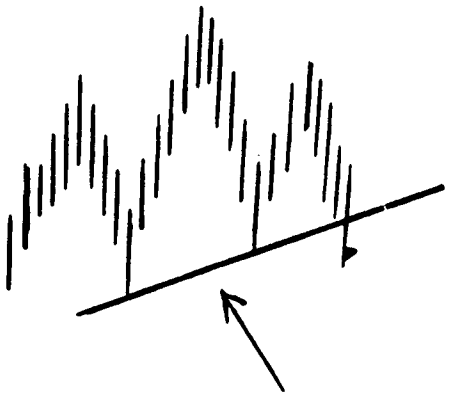
Close below plane, put hedge back on (or put on failsafe hedge) or lift long hedge. If plane is at contract low, need 2 consecutive closes to act.



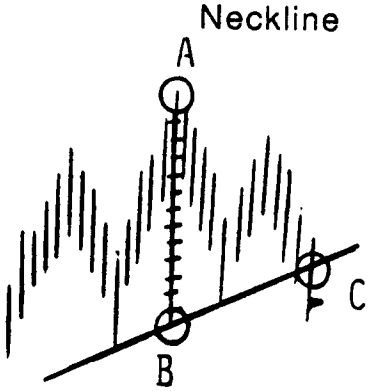
Lift hedge again or replace long hedge if get a close back above the support plane.

Head and Shoulders Tops

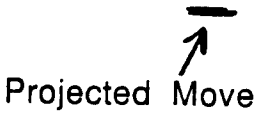
See possibility of a top.



Head and shoulders top completed.



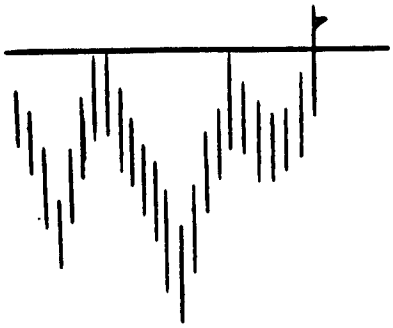
To project move down, measure vertical distance from top of head to neckline and project this distance down from the "break" point. Deduct a distance AB from the break point at C.



Head and Shoulders Bottom

Projected Move

Neckline



On Head and Shoulders Foundations:

1. 70 - 80% reliable in terms of a significant move after neckline is broken.

2. Time required to complete days or up to several weeks.

3. Frequently seen in grains, livestock commodities.

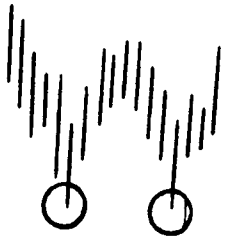
4. Easy to recognize.

5. Low trading volume on each side of the "head" confirms the formation.

Double Tops, Bottoms

Market rallies back toward a resistance plane -- if fails, have a double top.

Fails at resistance plane, forming double top.

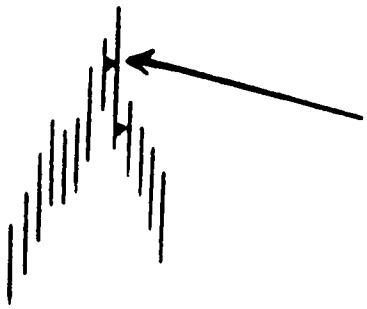


Double <u>bottom</u> occurs along a support plane.

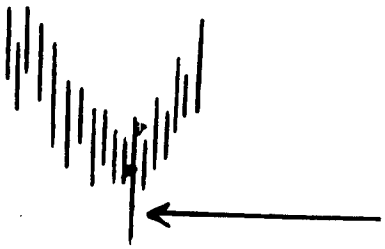
<u>On Double Tops, Bottoms</u>

1. 60 - 70 % reliable.
2. Frequently seen.
3. On 2 consecutive days or across several weeks.

Key Reversal Tops, Bottoms



Key reversal top. A new contract High, an "outside day", and a lower close.

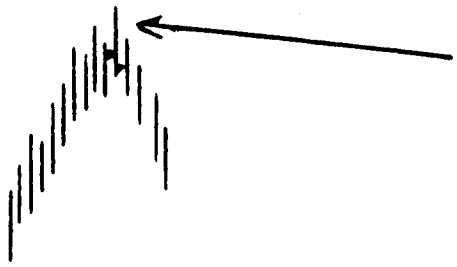


Key reversal bottom.

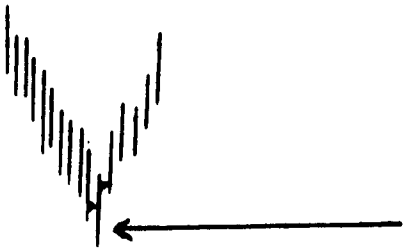
On Key Reversal Tops, Bottoms

1. 70 - 80% reliable.
2. Fairly frequently seen.
3. Can occur in the "head" of head-shoulder top or bottom.
4. Needs to be on high volume day to confirm.

Hook Reversal Tops, Bottoms



New contract high, but not an outside day, lower close.



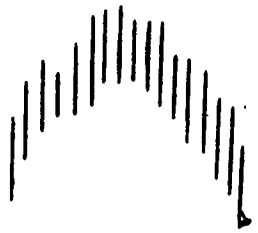
New contract low, higher close, not an outside day.

On Hook Reversal Tops, Bottoms

1. 60 - 70% reliable.
2. Frequently seen, common at intermediate (not contract high or low) turning points.
3. Needs high volume to confirm.

"Saucer" or rounded Tops, Bottoms

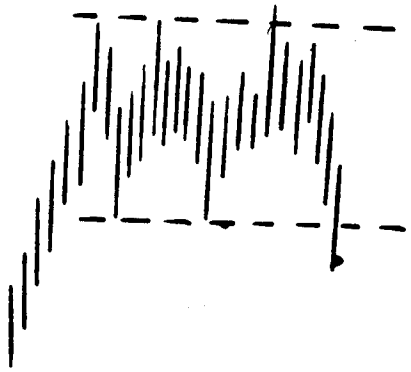
Top

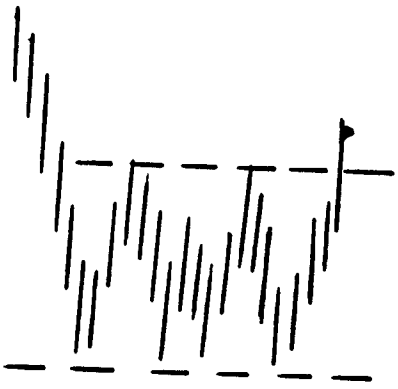


Bottom

Rectangle or Congestion Area as Tops, Bottoms

Top



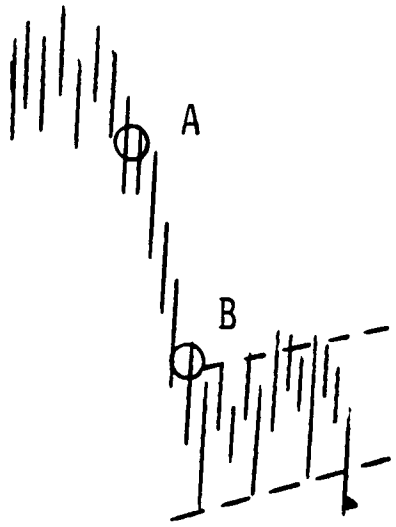


Bottom

Consolidation Patterns:

"Resting places" in a major move. Confirms the major price move which has developed and gives a second chance to sell or buy.

Bear Flag

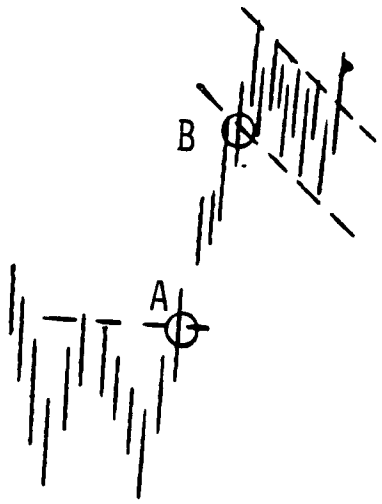


Ascending wedge or channel -- close below flag projects down the length of the flagpole, a distance AB.

Projects to here.

Bull Flag

Projects to here ⟶



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

Flags are:

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

Pennants

Bull Pennant

Bear Pennant

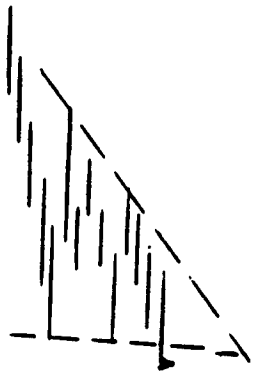
Pennants are:

1. 60 - 70% reliable.

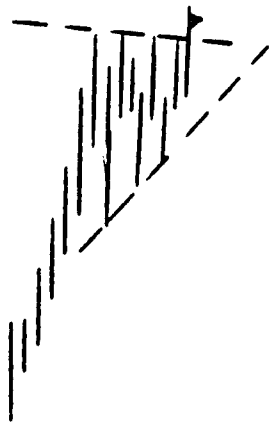
2. Without basis for projection -- tend to move out the way the market was moving coming into the pennant.

3. Frequently seen in grains, livestock.

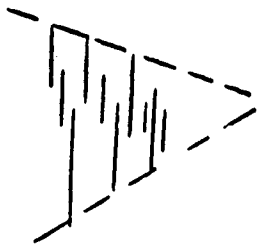
Triangles



Descending triangle. Break out tends to be to downside.



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

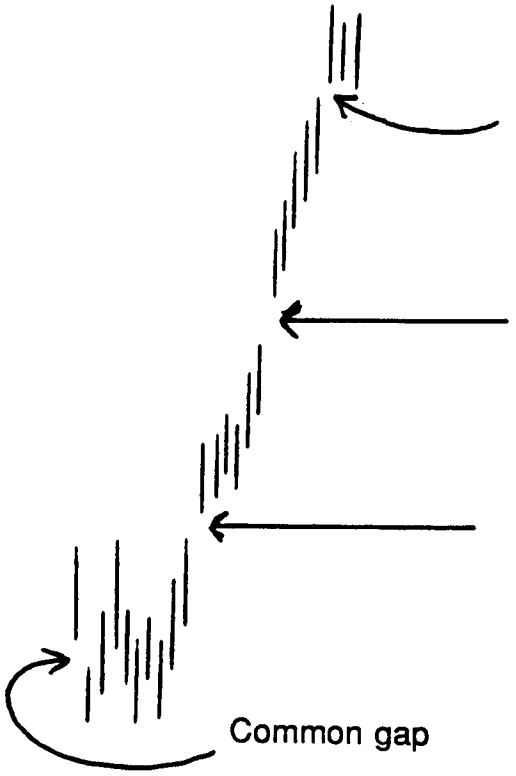


Symetrical triangle. Break out tends to be in the direction when entered the triangle.

Triangles are:

1. Frequent.
2. Longer in time, typically, than flags or pennants.
3. 60 - 70% reliable.

Chart Gaps



Exhaustion gap

Measuring gap -- project up distance from breakaway gap to middle of this gap.

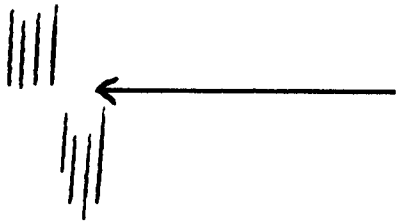
Breakaway gap if not filled in 5-10 days.

On gaps:

(1) Good projection devices.

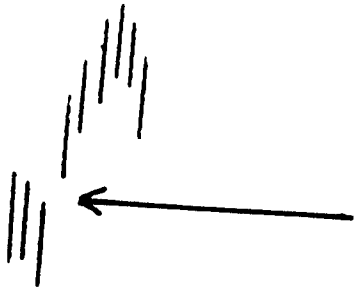
(2) Market tries to "fill".

(3) Rally objective in down market.



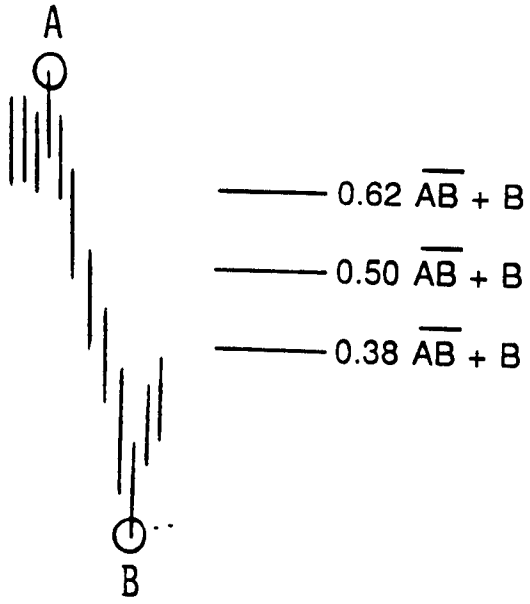
Sell rally or "correction" to this gap.

(4) Set back objective in up market.



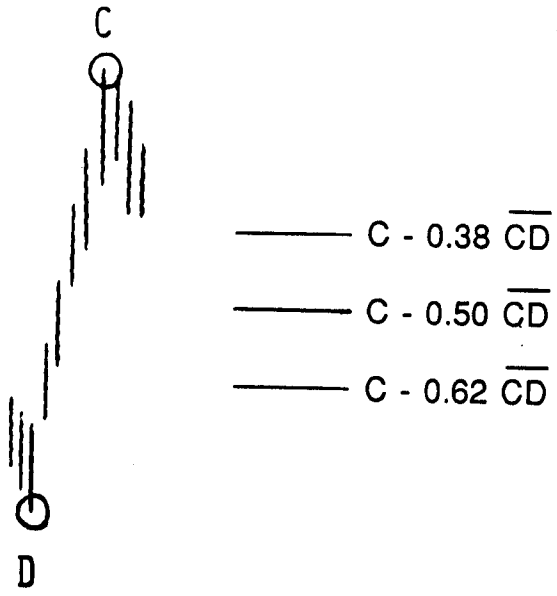
Buy setback to this gap.

Corrections



Market "tops: and turns lower. Expect the "correction" to reach 38%, 50%, or 62% of the move down.

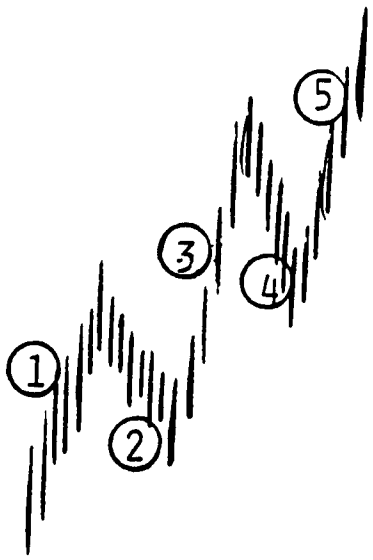
LOOK FOR THE RALLY TO GIVE A CHANCE TO SELL AND PLACE TO HEDGE



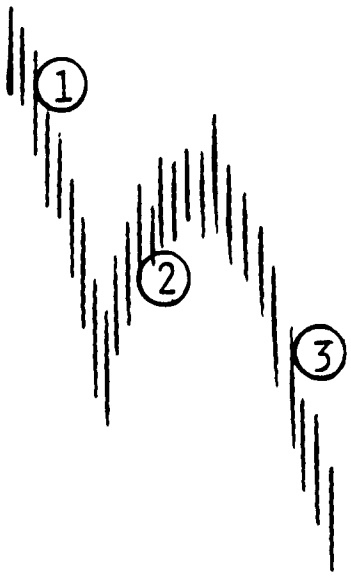
Expect a correction or setback after the move up.

USE THE CORRECTION TO HELP IN LIFTING HEDGES OR PLACING LONG HEDGES.

Elliott Wave



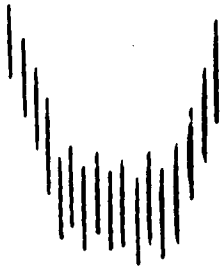
Bull markets tend to come in 5 "waves". The correction legs (such as leg or wave 2) tend to correct up to the 62% full correction. Can have miniature 5-wave moves in each of the legs, especially in 1, 3, and 5.



Bear markets tend to come in 3 "waves". Leg 2 is a correction of Leg 1. Can have miniature 3-wave moves in each of the legs, especially 1 and 3.

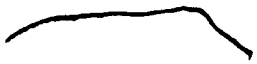
Open Interest

1.



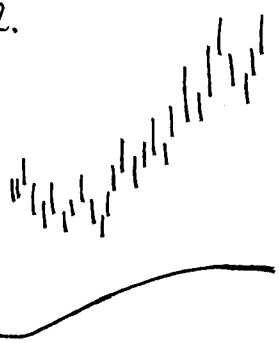
Bar Chart Shows Rally

The rally is "short covering" -- the rally is not likely to be sustained. Don't buy or lift hedges.



Open Interest Drops

2.



Bar Chart Shows Rally

This rally has "new buying and selling" -- more likely to be sustained. Buy or lift hedge with confidence.

Open Interest Increases

3.

Bar Chart Shows Trend

The turn down in open interest often signals a coming top in the market.

Open interest stops increasing and turns lower

Open Interest

4.

Bar Chart Shows Congestion

Could mean large commercial firms are lifting hedges on inventory -- market might start a major rally.

Open Interest Starts to Drop

5.

Bar Chart in Downtrend

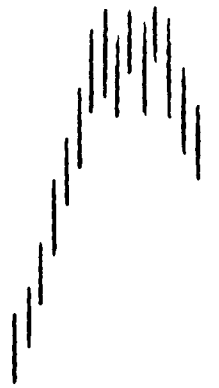
Downtrend likely nearing an end.

Open Interest Tops

6.

Bar Chart Shows Price Dip

A "long covering" setback. Probably have not seen a top yet... But long liquidation can start a major move down if new selling comes in.



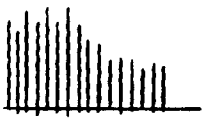
Open Interest Dips

Volume

1.

Bar Chart rally

Do not buy a market rallying on "quiet" volume.

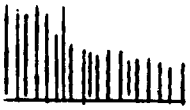


Volume Declined as Rally Started

2.

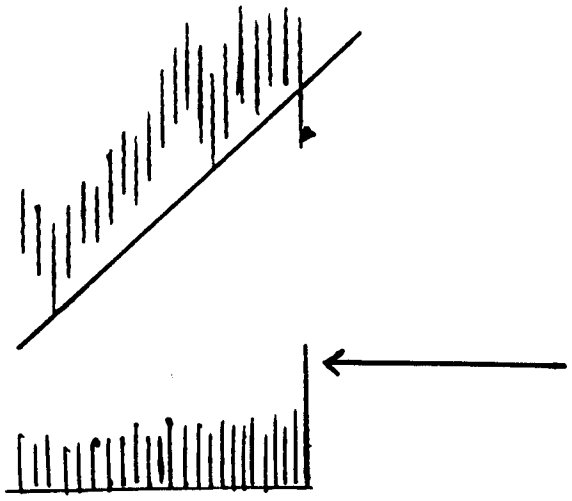
Bar Chart Drops

Be careful selling a market "dropping" on quiet volume.



Volume Declines

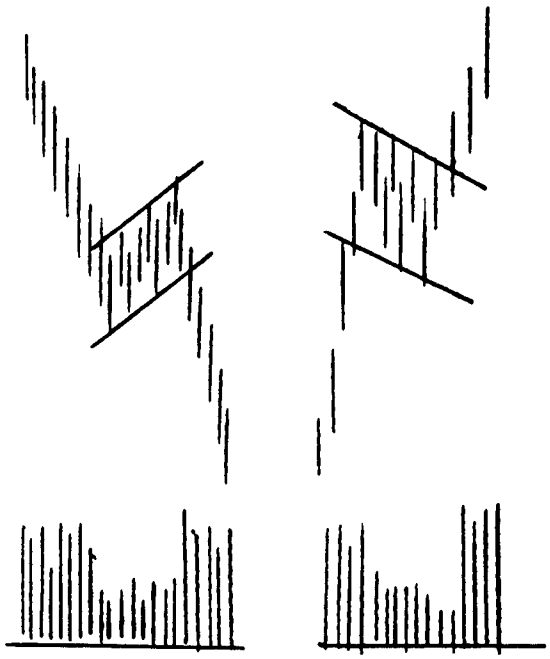
3.



Feel better about this sell signal or any sell or buy signal if it occurs on high volume.

See relatively high volume on the "break out" day.

4.



Bar chart shows flag formations.

Want to see light volume as
the "flag" is formed.

5.

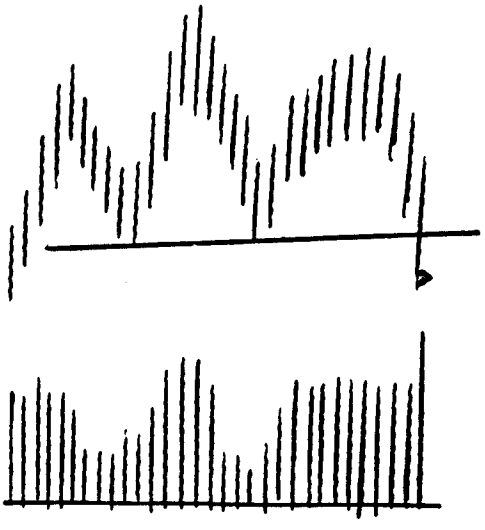


Chart shows head and shoulders top. (Or could be reverse of this and be a head and shoulders bottom.)

Want light volume in the "scoop" on each side of the head to confirm the formation. Like to see big volume when break thru the neckline.

Relative Strength Index

A measure of momentum. Designed to keep you from buying a market ready to turn down, selling a market ready to turn up.

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

Where

RSI = relative strength index

U = up index

D = down index

To calculate an initial RSI:

(1) Shown changes in closes for 14 consecutive days

(2) Add positive changes, ÷ by 14

(3) Add negative changes, ÷ by 14

(4) Calculate RSI

An Illustration:

day 1	+.50	
day 2	+.20	
day 3		- .30
day 4	+.60	
day 5		- .70
day 6		- .50
day 7		- .20
day 8	+.10	
day 9		-1.10
day 10	+.30	
day 11	+.70	
day 12	+.20	
day 13		- .30
day 14		- .40
	2.60	-3.50

U = 2.60/14 = 0.186

D = 3.50/14 = 0.250

RSI = (0.186)/(0.186 + 0.250)

= 0.186/0.436

= 0.427

To add a day or update:

$$\text{New U} = \frac{(\text{Old U} \times 13) + \Delta}{14}$$

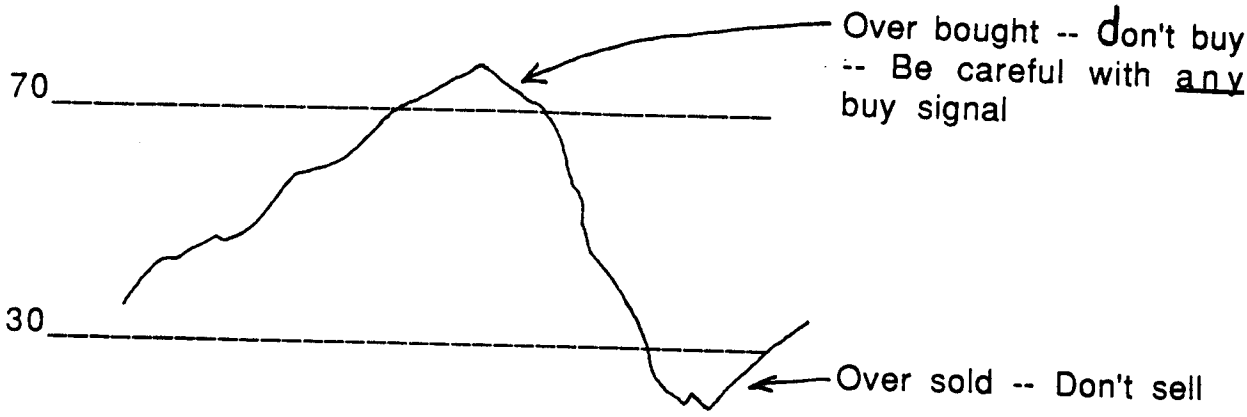
$$\text{New D} = \frac{(\text{Old D} \times 13) + \Delta}{14}$$

Assume the change is -.50

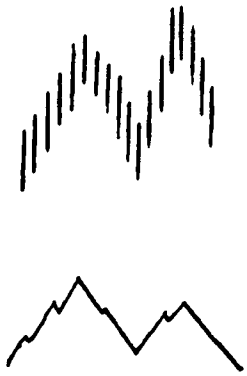
$$\text{New U} = \frac{(.186)\ 13 + 0}{14} = .173$$

$$\text{New D} = \frac{(.250)\ 13 + .50}{14} = .268$$

$$\text{New RSI} = \frac{.173}{.173 + .268} = .383$$



A swing failure is an important indicator of a pending change in the direction of market trend.



Price makes new high

RSI fails to make new high

This brings a swing failure. Market likely to turn lower.

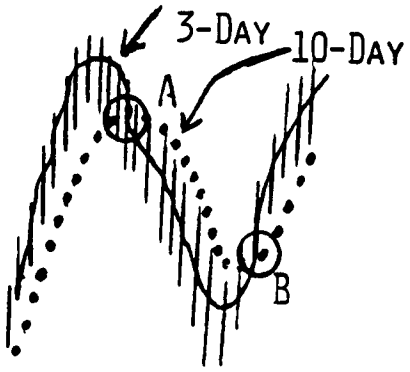
Market makes a new low, RSI does not. The swing failure suggests market will turn higher.

Moving Averages

Bar chart analysis is subjective. Some users need a more objective approach. Moving averages are trend following systems that give clear and objective buy-sell signals. To calculate, using 3 and 10-day to illustrate:

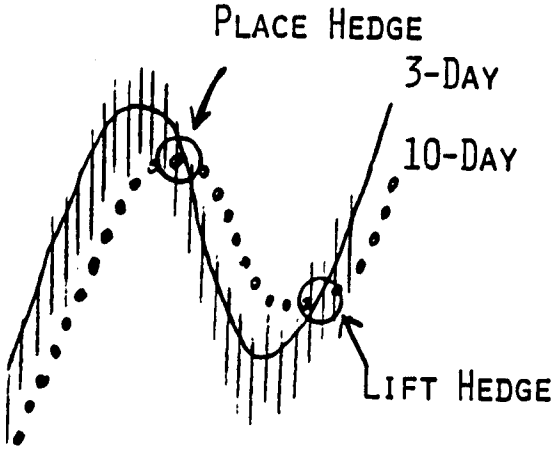
Date	Closing Price	3-Day Moving Total	10-Day Moving Total	Averages 3-Day	Averages 10-Day	
5/23	50.25					
24	50.60					
25	50.90	151.75		50.58		
26	51.40	152.90		50.97		
27	52.00	154.30		51.43		
30	HOLIDAY					
31	53.00	156.40		52.13		
6/ 1	54.00	159.00		53.00		
2	53.75	160.75		53.58		
3	53.90	161.65		53.88		
6	52.40	160.05	522.20	53.35	52.22	
7	51.40	157.30	522.95	52.43	52.30	
8	50.00	153.40	522.35	51.13	52.24	SELL
9	49.00	150.50	520.45	50.00	52.05	
10	49.00	148.00	518.05	49.33	51.81	

Plotted, the averages look like:



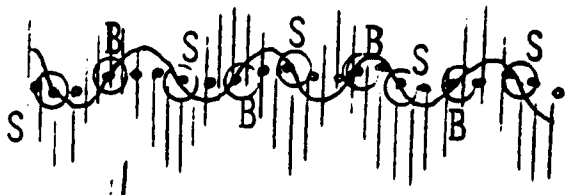
In a rising market, the shorter moving average goes up faster, but turns more quickly. A sell signal @ A when the 3 crosses the 10 from above -- a buy signal @ B when the 3 crosses the 10 from below.

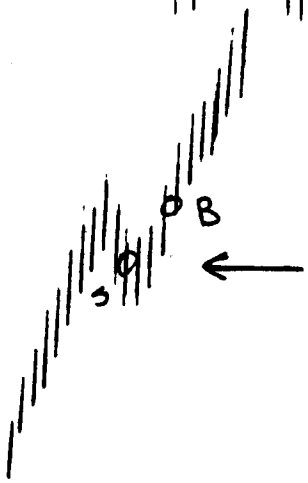
In a selective hedging program, moving averages would be as follows:



Process would be reversed for a long hedge on inputs, of course.

Strengths	Weaknesses
Objective	Can be "whipsawed" in a congestion area by too many trades.
Imposes discipline	
Always hedged in major breaks, off the hedge in major bull markets	
Long hedger will have costs "pegged" on major up moves.	





Will bring small losses when get a minor "correction" in strong uptrend.
Moving averages may see this as a "top" -- trade will likely be a loss.
Look at this as "insurance premium".

IMPORTANT TO USE CORRECT SET OF AVERAGES

Commodity	Moving Averages**
Corn	9, 14
Soybeans	13, 16
Hogs	3, 13
Fed Cattle	5, 15
Feeder Cattle	4, 8W*

---

*8W refers to an 8-day weighted moving average:

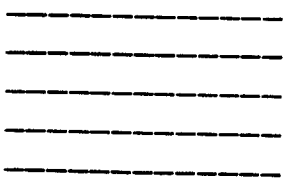
Day	Close Price	Weight	Product	
T	70.00	8	560	
T-1	71.00	7	497	
T-2	70.00	6	420	
T-3	71.00	5	355	
T-4	72.00	4	288	2,556 ÷ 36 = 71
T-5	72.00	3	216	8-day weighted
T-6	73.00	2	146	moving
T-7	74.00	1	74	
		36	2,556	

**Any set of averages will perform better using the following: Assume sell signal occurs on day T. Wait until day T+1 and sell at close <u>if</u> close is lower. If not, wait until get close below close of day T <u>or</u> until averages switch back to "buy" position and you ignore this sell signal. This eliminates the need for a "confirming average", penetration rules, etc.

TRADING PLANS

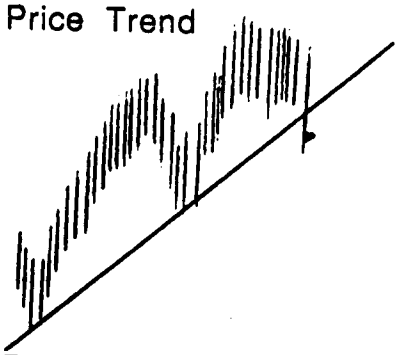
Conservative Hedger: Alternatives

1. Price Objective



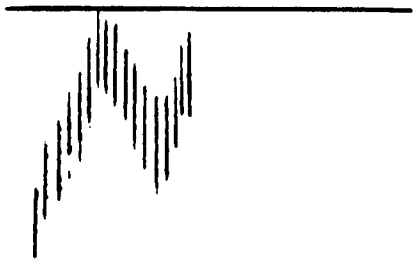
Place "limit" orders on a scale up basis, starting with the minimum acceptable level or look for cash contracts. A reasonable approach but (1) the objective may never be reached, (2) can mean high opportunity costs if market moves sharply higher, and (3) margin calls can be burdensome in major up markets.

2. Price Trend



Use trend line and place hedge on a close below uptrend line. Must decide whether this is the correct trend line, the correct time. Must bring good fundamental analysis to this decision.

3. Price Resistance

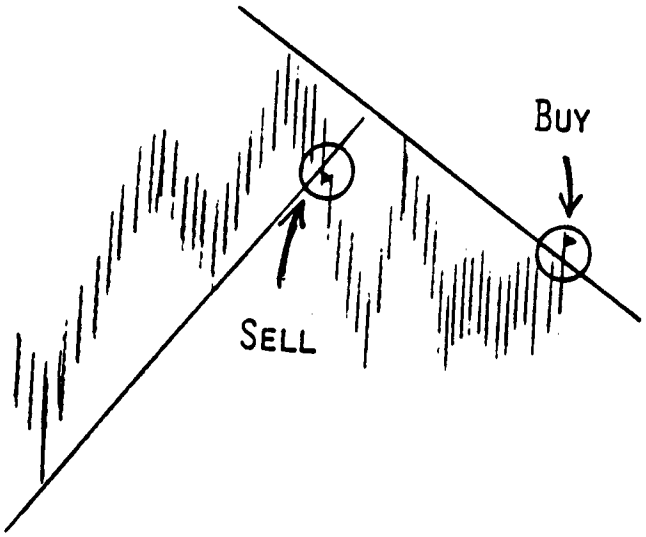


Place hedge on approach to the resistance plane. Especially important if the place is across contract high.

Could combine the price objective and the chart analysis --
For example, price on approach to old contract high if appears
That resistance will block reaching your price objective.

Selective Hedger: Alternatives

1. Trend Lines

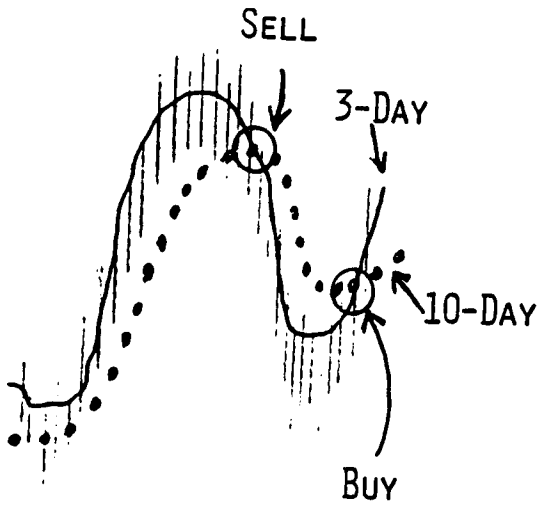


Place hedge on sell signal lift hedge on buy signal. (Reverse for long hedger.) Effective in a market which is giving significant "trends" -- prolonged moves up and down. Requires discipline and some rules on how to draw the trend lines. Could place and lift the hedge several times during a production season or storage period.

2. Resistance, Support Planes

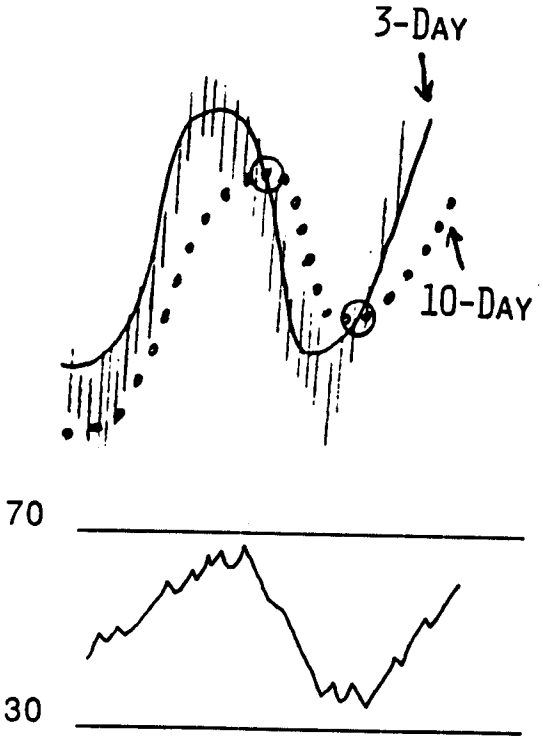
Place hedge on approach to resistance planes, lift on approach to support planes. Useful when there are no major trends <u>but</u> must be disciplined on the approaches -- for example, lift hedge placed on approach to contract high <u>if</u> get two consecutive closes above the plane; replace hedge you have lifted if get two consecutive closes below contract low.

3. Moving Averages



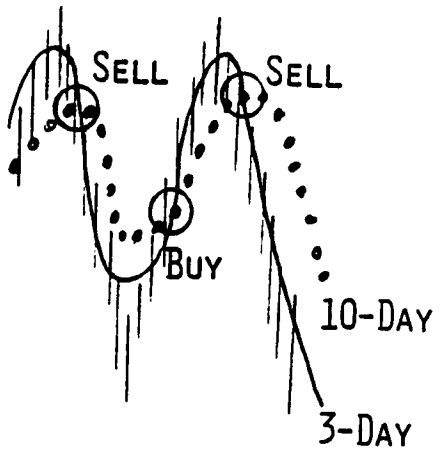
Use correct set of moving averages (the 3 & 10-day are used to illustrate). Eliminates need for disciplined analysis of bar charts but requires discipline to stay with the system -- especially when the market is not showing major trends. Performance improved by keying on close day after the signal.

4. Moving Averages & Relative Strength Index



Ignore buy signal (sell signal) by moving averages if the RSI should be above 70 (below 30) indicating an "overbought" (oversold) market. Will improve performance of moving averages by eliminating some of the "false signals".

5. Price Objective and Moving Averages



Provides backup or "failsafe" protection if market tops below the price objective and never reaches the objective. If the objective is reached, could then get pricing done and stop using the moving averages. Reasonable to add any gains after commissions on moving average signals to the situation and reduce price level you would be willing to take. (If you have losses from moving averages, might raise your objective to cover the losses.)

6. Moving Averages and Oscillators

Use moving averages to generate buy-sell signals when trends are occurring. Use measure of volatility to tell you when to switch to oscillator during congestion area.