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## G91-1057 Elements of Technical Analysis

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## Elements of Technical Analysis

**This seventh in a series of nine NebGuides on technical analysis in marketing centers on daily volume and open interest.**

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**Volume** and **open interest** are used to substantiate primary signals developed by technical analysis. They help investors find clues to market movement and bolster the chances of enhancing their financial position.

In the futures market, a new contract becomes a reality only when a new buyer and a new seller complete a transaction.

**Volume** is the total amount of purchases or sales transacted in a given day. Each time a record of a new market position is established or reversed, the total volume increases or decreases by one. To find the volume, add the total of the short positions, or add the total of the long positions that particular day. Do not add the two together because a contract requires one of each.

Each time a transaction is completed, whether it involves establishing a new position or offsetting an old position, the volume is increased by one.

In general, trading volume has little relationship to a season, although a slight upward trend may occur during heavy crop movements. Such movements are not repeated consistently.

One way to characterize volume is as a measure of the urgency shown by market traders to do something on a given day to enter or leave the market.

**Open interest** is defined as contracts entered into on the futures market but not yet liquidated by an offsetting transaction or fulfilled by delivery of a commodity. This involves the total number of contracts outstanding at the end of a day.

Open interest is determined by adding the number of long positions held or by adding the total number of short positions held, at the close of the trading day. Again, the two are not added together.

Open interest measures the degree or level of participation in the market. Usually it reflects new

participants coming into the market and old ones dropping out.

For example: let's assume you have no position in the market but decide today to buy one futures contract of wheat. If the seller on the other end of your transaction was closing out a previous long position in wheat, open interest would not change. You would, in effect, replace him in the market. But if the seller was establishing a new short position, volume would increase by one because there would be a new long and a new short.

Open interest is more subject to seasonal fluctuations than is trading volume. The low point usually occurs just before new crop harvest. It usually peaks when grain storage stocks are at their apex because as the commodity is stored, the number of hedged transactions increases.

Both volume totals and open interest rates are published in the market sections of most daily newspapers. **Remember:** the totals in the newspaper reflect market activity for the day before yesterday.

Both volume and open interest are measured in bushels for grain and in contracts for meats.

Looking at the combination of volume, open interest and price action can give the producer clues to how prices may behave in the future. When analyzing open interest and volume, consider all the months for the same crop year of a particular commodity. Using supply and demand factors that incorporate two separate years can cause unrelated and incorrect readings.

Positive signals are generated in a bull market because, as prices continue upward, volume also goes up. Even though significant numbers of sellers are willing to liquidate, a large number of traders are willing to buy in the belief that today's price protects them from paying higher prices in the future.

Rallying prices and increasing open interest give another positive sign for a continuing bull market. This means more new buyers are coming into the market and holding their position overnight, while sellers are buying back their short (sold) positions before the market closes. Speculators or long hedgers (investors anticipating further price increases) will enter the market and others (short hedgers and speculators) will leave, anticipating price declines. This type of market pattern must continue over several days before a specific market direction, or trend, can be established.

There also are warning signs to heed when the market's volume continues to increase with a subsequent substantial price move, or when prices move up on a day when volume is down. These signs may show that only a few large buyers are pushing the market up against only a few sellers to inflate the existing price unrealistically.

**The biggest warning sign** is when prices are going higher at a time open interest is dropping. This signals speculators are liquidating their long positions and taking profits, leaving a large supply on the market to match a smaller population of buyers. Buyers should hold to purchase later, after the market price has adjusted to a lower and more acceptable level.

**In a bear market**, sellers sell short even though there are many buyers. Prices may close lower on a day with heavy volume due to traders' willingness to cut profits or losses in anticipation of more price decreases.

**Another sign of a weak market** is downward trending prices combined with increasing open interest. This market, dominated by many new sellers wanting out of the market, is likely to result in continuing lower prices.

It is hard to gauge the direction of the market when both prices and volume are down. The few participants on that day may not have been sufficient to give a true picture of the strength of the total market direction.

**When both prices and volume are low**, it could be signaling the end of the downside trend in the market. A drop in both price and open interest shows sellers are liquidating and taking profits in greater numbers than new short positions are being added. Eventually the market will gain more buying power than selling interest, and prices will turn upward.

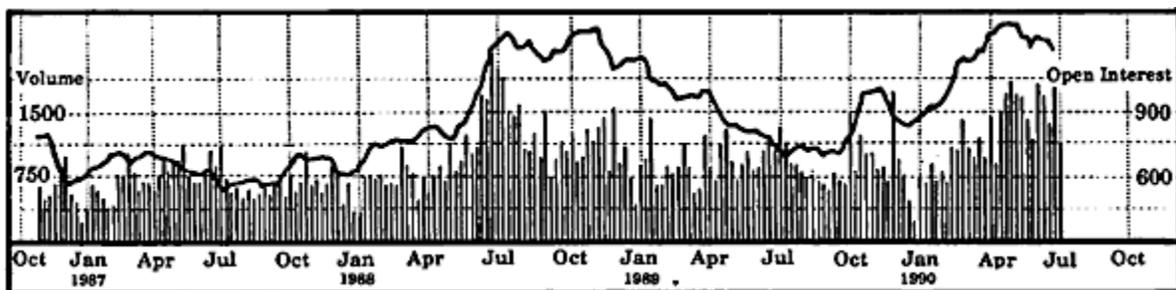
At this market point, **sellers** should hold out for higher prices to come, but **livestock feeders** should consider buying before a price increase becomes a reality.

Understanding and using this information provides the trader, speculator or producer with good indications of the relative buying or selling strength of the market. Publications of the Commodity Futures Trading Commission (CFTC) offer valuable information on the open interest and volume of trading for all regulated commodities.

These reports also disclose the nature and size of traders currently holding futures contracts. All these factors influence a decision on whether to enter the futures market, but should not be used as the only indicator of when to buy or sell.

#### **Guidelines for Producers and Traders in Following Price, Volume and Open Interest:**

1. Simultaneous increases in price, volume and open interest indicate a technically strong market.
2. Decreases in price, volume and open interest likewise indicate a technically strong market.
3. Increases in price, coupled with decreases in both volume and open interest, indicate a technically weak market.
4. Decreases in price, combined with increases in both volume and open interest, also indicate a technically weak market.



**Figure 1.**

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