Chapter 11

Market Analysis

MARKET ANALYSIS

There are two common methods of analyzing commodity market conditions:

- **Fundamental Analysis** - A method of accessing the intrinsic value of a commodity using analysis of supply and demand information in an effort to anticipate future price movements or direction.

- **Technical Analysis** - The study of charts and, more specifically, price movement to forecast commodity prices anticipating future price movement using historical prices, trading volume, open interest and other trading data to study price patterns.

A business whose activities are impacted by changes in supply chain activities and commodity prices should understand both methods.

FUNDAMENTAL ANALYSIS

Fundamental analysis is a method of seeking answers to questions about what is happening in commodity markets and accessing the intrinsic value of a commodity using analysis of supply and demand information in an effort to anticipate future price movements or direction.

Fundamental analysis is really a study of basic, underlying factors which will affect the supply and demand of a commodity. Since in the short run both supply and demand for agricultural commodities are relatively inelastic, prices for commodities can be volatile. If an analyst can project probable future shifts in supply and/or demand and compare them with historical moves, the analyst can begin to successfully project future prices and price trends.

In an effort to more clearly quantity supply and demand, a fundamental analyst will look at a wide range of factors that may influence a price outlook. Some of these include weather conditions, planted and harvested areas, yield estimates, inventories, user demand, supply of related or substitutable commodities, transportation costs and capacities, in concert with a wide range of other micro and macro-economic conditions. Other factors which may be included are a wide range of geopolitical and economic developments, such as government policies and support programs, interest and currency exchange rates, and the world political situation and its potential impact on trade decisions.

The foundation of fundamental analyst is raw data collected from a number of if local, national and international sources, including news, market reports, and historical data from private and public sources. This data forms the basis for econometric models to evaluate the objective state of the supply and demand of a commodity.

The Purpose of a Commodity Balance Sheet

The underlying tool for fundamental analysis is the commodity Balance Sheet. The goal of a commodity Balance Sheet is to quantify the supply and demand within a geographical area in an effort to forecast the surplus or deficit of a commodity in an effort to determine a price relationship to bring the situation into balance.

A typical Balance Sheet for grains and other agricultural commodities is set out as follow:

Commodity Balance Sheet

Supply

Beginning Stocks

Production

- Area Harvested
- Yield

Total Supply

Demand

FSI Total

- Food (Milling)
- Seed
- Industrial Use (Milling, Crush, Energy)

Feed

Residual

Total Consumption

Trade

Imports (Will make a positive contribution to Supply)

Exports (Will make a positive contribution to Demand)

Net Balance in Trade (+/-)

Ending Stocks

% Stocks/Use or Days of Use

In other words we are attempting to define expected Ending Stocks that will result from excess supply, or "short fall" as a result of a deficit. From the results implications can be determines for:

- inter-commodity or quality spread (Typical) price relationships,
- inter-regional (Distal / Spatial) price relationships,
- Related Basis values,
- underlying Future prices

Some weaknesses cited by traders and economists in the use of fundamental analysis are as follows:

- Drawing hard fast trading rules from the analysis and forgetting the imperfect nature of underlying information.

- Using outdated information or using information not available to the rest of the market which, therefore, has no immediate impact.

- Ignoring seasonal considerations.

- Forgetting that commodity markets can exceed costs of production or go significantly below the cost of production for extended periods of time.

- Ignoring the state of the futures markets or the fundamental impact of money flow.

- Allowing expected conclusions to lead to the evidence, i.e., confusing or misdirecting the analysis with market beliefs.

- Viewing fundamentals in a vacuum, without regard to technical analysis or risk management.

By definition, it is the study of all factors affecting the forces of supply and demand on a commodity.

In review, fundamental analysis is an effective tool in forecasting price relationships over distance, time and related quality and commodities, as well as seasonal trade flows. It addition it can assist in the effective management risks in commodities trading.

TECHNICAL ANALYSIS

The study of charts and, more specifically, price movement to forecast commodity prices anticipating future price movement using historical prices, trading volume, open interest and other trading data to study price patterns.

It is an approach to forecasting commodity prices which examines patterns of price change, rates of change and changes in volume of trading and open interest, without regard to underlying fundamental factors. Many academic experts have questioned the value of technical analysis. However, since the charts of past price movements used by technical analysts also are used by most traders to predict price movements in futures markets, any risk manager in the commodity markets must be prepared to understand both technical and fundamental analysis. Such an understanding is needed to give the trader a full appreciation of all forces shaping the decisions of major participants in the futures markets.

As commodities are an integral part of the U.S. economy, and because they frequently demonstrate volatile price movements, they can attract speculative interest from fund managers, commodity pool operators, and commodity trading advisors, into the markets that did not exist just 30 years ago. These important market participants have added increased importance to the area of technical analysis and its interpretation of directional price decisions as they can significantly impact money flows into and out of the markets with the directional movement of price.

As such, technical analysis is an effective tool when used with fundamental analysis to manage feed grains risk along with other commodity price risk.

Following are several examples of basic technical analysis. Some are chart patterns, while others include measurements of directional trends allowing traders to visualize changes in market behavior.

In addition to methods of technical analysis, traders also need to be well-versed in risk management and trading psychology. Certain strategies have stood the test of time and remain popular tools for trend traders who are interested in analyzing certain market indicators.

MARKET INDICATORS

Trends: A common saying heard in many trading circles is; “The trend is your friend.” Trend traders attempt to isolate and extract profit from price trends over time. The method of trend trading attempts to capture profits through the analysis of a commodity price’s directional momentum. [i] There can be multiple ways to achieve this outcome.

Trendlines or a moving average can be an “indicator” and help establish a trend’s direction and/or a directional indicator. Indicators can simplify price information, in addition to providing trend trade signals and providing warnings of pending reversals.

Moving Averages: A “Moving Average” is a technical analysis tool that smooths out price data by creating a constantly updated average price. On a price chart, a moving average creates a single, flat line that effectively eliminates any variations due to random price fluctuations. [ii]

The average is taken over a specific period of time, i.e., 10 days, 20 minutes, 30 weeks, or any time period the trader chooses. For long-term trend followers, the 200-day, 100-day, and 50-day simple moving average are popular choices.

If the moving average line is angled up, an uptrend is underway. However, moving averages don't make predictions about the future value of a stock; they simply reveal what the price is doing, on average, over a period of time.

There are several ways to utilize the moving average. The first is to look at the angle of the moving average. If it is mostly moving horizontally for an extended amount of time, then the price isn't trending, it is ranging.

A trading range occurs when a security trades between consistent high and low prices for a period of time.

“Crossovers” are another way to utilize moving averages. By plotting a 200-day and 50-day moving average on your chart, a buy signal occurs when the 50-day crosses above the 200-day. A sell signal occurs when the 50-day drops below the 200-day. [iii]

When the price crosses above a moving average, it can also be used as a buy signal, and when the price crosses below a moving average, it can be used as a sell signal. The time frames can be altered to suit your individual trading timeframe.
Moving averages can also provide support or resistance to the price.

However, since the price is more volatile than the moving average, this method is prone to more false signals.

Moving Average Convergence Divergence (MACD): The "Moving Average Convergence Divergence" (MACD) is a kind of oscillating indicator. An oscillating indicator is a technical analysis indicator that varies over time within a band (above and below a centerline; the MACD fluctuates above and below zero). The MACD is both a trend-following and momentum indicator. [iv]

One basic MACD strategy is to look at which side of zero the MACD lines are on in the histogram below the chart. If the MACD lines are above zero for a sustained period of time, the stock is likely trending upwards. Conversely, if the MACD lines are below zero for a sustained period of time, the trend is likely down. Using this strategy, potential buy signals occur when the MACD moves above zero, and potential sell signals when it crosses below zero.

Signal line crossovers can also provide additional buy and sell signals. A MACD has two lines; a fast line and a slow line. A buy signal occurs when the fast line crosses through and above the slow line. A sell signal occurs when the fast line crosses through and below the slow line.

Relative Strength Index (RSI): The "Relative Strength Index" (RSI) is another oscillating indicator but its movement is contained between zero and 100 so it provides different information than the MACD. [v]

One way to interpret the RSI is:

- by viewing the price as **"overbought"** — and due for a correction when the indicator in the histogram is above 70,
- and by viewing the price as **“oversold”** — and due for a bounce when the indicator is below 30.3.

In a strong uptrend, the price will often reach 70 and beyond for sustained periods of time. For downtrends, the price can stay at 30 or below for a long time. While general overbought and oversold levels can be accurate occasionally, they may not provide the timeliest signals for trend traders.

An alternative is to buy close to oversold conditions when the trend is up and place a short trade near an overbought condition in a downtrend.

For example, suppose the long-term trend of a stock is up. A buy signal occurs when the RSI moves below 50 and then back above it. Essentially, this means a pullback in price has occurred. As such, the trader “buys” once the pullback appears to have ended (according to the RSI) and the trend is resuming. The 50-levels are used because the RSI doesn't typically reach 30 in an uptrend unless a potential reversal is underway. A short-trade signal occurs when the trend is down and the RSI moves above 50 and then back below it.

On-Balance Volume (OBV): Volume itself is a valuable indicator, and on-balance volume (OBV) takes a significant amount of volume information and compiles it into a single one-line indicator.

The BOV indicator measures cumulative buying and selling pressure by adding the volume on "up" days and subtracting volume on "down" days. Ideally, the volume should confirm trends. A rising price should be accompanied by a rising OBV; a falling price should be accompanied by a falling OBV. [vi]

If OBV is rising and the price isn't, it's likely that the price will follow the OBV in the future and start rising. If the price is rising and OBV is flat-lining or falling, the price may be near a top. If the price is falling and OBV is flat-lining or rising, the price could be nearing a bottom.

Head and Shoulders Formation: A "Head and Shoulders" pattern is a chart formation that appears as a baseline with three peaks, where the outside two are close in height and the middle is highest. In technical analysis, a head and shoulders pattern describes a specific chart formation that predicts a bullish-to-bearish trend reversal.[vii]

A head and shoulders pattern is believed to be one of the most reliable trend reversal patterns. It is one of several top patterns that signal, with varying degrees of accuracy, that an upward trend is nearing its end.

Inverted Head and Shoulders Formation: The opposite of a head and shoulders chart is the "Inverse Head and Shoulders"; also called a "Head and Shoulders Bottom." It is inverted pattern with the head and shoulders top used to predict reversals in downtrends. [viii] This pattern is identified when the price action meets the following characteristics:

- the price falls to a trough and then rises;
- the price falls below the former trough and then rises again;
- finally, the price falls again but not as far as the second trough.

Once the final trough is made, the price heads upward, toward the resistance found near the top of the previous troughs.

Market indicators can be used across a range of time frames, and for the most part, contain variables that can be adjusted to suit each commodity or trader's specific preferences. As such, traders can combine indicator strategies, or develop their own guidelines, so that entry and exit criteria are clearly established for trading strategies.

It is important to note that learning to develop and trade on technical analysis can be a tricky process.

Chapter Author: Guy H. Allen
Senior Economist – International Grains Program
Kansas State University

Chapter Reviewer: Philip Shull
Senior Diplomat (Ret)
U.S. Department of Agriculture

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[i] Investopedia "Trend Trading: The 4 Most Common Indicators" Mitchelle, Cory (24th August 28, 2021) https://www.investopedia.com/articles/active-trading/041814/four-most-commonlyused-indicators-trend-trading.asp Sighted 20th February 2022

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[iv] Investopedia "Trend Trading: The 4 Most Common Indicators" Mitchelle, Cory (24th August 28, 2021) https://www.investopedia.com/articles/active-trading/041814/four-most-commonlyused-indicators-trend-trading.asp Sighted 20th February 2022

[v] Investopedia "Trend Trading: The 4 Most Common Indicators" Mitchelle, Cory (24th August 28, 2021) https://www.investopedia.com/articles/active-trading/041814/four-most-commonlyused-indicators-trend-trading.asp Sighted 20th February 2022

[vi] Investopedia "Trend Trading: The 4 Most Common Indicators" Mitchelle, Cory (24th August 28, 2021) https://www.investopedia.com/articles/active-trading/041814/four-most-commonlyused-indicators-trend-trading.asp Sighted 20th February 2022

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