THE SIMPLEST INTRODUCTION TO

STOCK MARKET LITERACY

The world-renowned *Trader Wizard* lays the groundwork for students around the world, young and old in 120 Living Lessons

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CHAPTER 75

Using technical indicators when trading

From this point, the content is about practice and not theory. Today, we delve into Alerts and Signals. The content previously covered the reasons to invest in securities. We learned that (1) there are only two wealth-seeking objectives, i.e., the search for capital appreciation via Growth or Value or from Income (2) changing business conditions and corporate financial results cause prices to rise and fall, so we choose Quality companies that outperform their peers, and (3) we use Technical Analysis to seize opportunities and manage risks.

We use all the help we can get when making any trading decision. Technical indicator-based studies of time and space provide the necessary support.

Technical Indicators have many uses, but the ones I use help me analyze price motion in the time series data. Trends and Cycles are the movements I study.

Investors apply several timeframes – Monthly, Weekly, Daily, Hourly, and Minute – in a single price motion analysis.

To put time into context, think of a wave. There are ripples, wavelets, waves, and tides. The longer the periodic motion, the stronger it is. In our studies, the incoming waves are less important when the tide goes out. So, monthly data is much more critical in cycle analysis than in minutes and hours.

Within motion, investors discover trendlines. What we watch for are the Breakouts and Breakdowns of these trendlines. Cycle Reversals alert the investor that a Trend Reversal is likely to happen. A confirmed Trend Reversal is the best time to buy and sell.

Please re-read the important statement I just made. What follows is explicit content, but I base it on logic and experience.

In this chapter, we apply our previous notes on Oscillators used to study Cycles.

Prices fluctuate under the influence of fear and greed emotion. All price motion has a Cycle. Every Cycle has a range of Momentum from slowing to reversing to speeding up to slowing to then reversing, which repeats. Cycle reversals are points that Signal the best time to buy and sell.

The three Oscillators that I use the most to study cyclic price motion are:

- **Rate of Change (ROC) Lesson 65**
- **Stochastic Oscillator Lesson 66**
- **Relative Strength Index (RSI) Lesson 67**

I present some of the following content in detail because omitting it in my Lessons From the Trader Wizard book was honest criticism. So, for this book, I am trying to meet a full spectrum of the newbie, generalist, sophisticated investor, and day trader's needs and interests.

All Cycles Oscillators track prices or indicators that fluctuate within limits above and below a Zero Line. The Zero Line is the historical average of the price or indicator. The extreme of a Cycle, the widest gap from the Zero Line, is an overbought or oversold level.

Reading the following notes without simultaneously applying them to charts will be confusing. This chapter is the application of theory. Without doing the exercises, learning will be minimal.

All Oscillators are helpful, but each has weaknesses because of the nature of capital markets with people acting like people, which is to say, often erratically.

1. The **Rate-of-Change Oscillator,** like the other oscillators, fluctuates as a percentage around the Zero Line but suffers from a significant weakness. An unusually high or low price at the start of the indicator window period is not used in the next day's calculation, which results in distorted values.
2. The **Stochastic Oscillator** compares the closing price to the window period's high minus low price range. This formula improves the ROC Indicator, which measures the relative change in only the closing price. But it, too, has a weakness. Stochastic movements can be erratic.

Fig. 75.1 Stochastic Oscillator %K Formula

For a 7-day period, the RSI %K = 100 [(C – L7) / (H7 – L7)]
Where C = most recent closing price
L7 = the lowest price traded during the past seven sessions
H7 = the highest price traded during the past seven sessions

Analysts reduce Stochastic sensitivity to market movements by (1) lengthening the period or (2) taking a moving average of the result. A 3-period internally smoothed slow Stochastic Indicator (%D) is more dependable.

Fig. 75.2 Stochastic Oscillator %D Formula

%D = 100 [(K1 + K2 +K3) / 3]

3. (3) The **Relative Strength Index (RSI) Oscillator** addresses most of the weaknesses in ROC and Stochastic Oscillators. RSI is not as susceptible to distortion as it smoothly oscillates on a scale between 0 and 100.

The RSI Oscillator is my most used price momentum Indicator.

RSI compares upward movements in closing price to downward movements over a selected period. Welles Wilder, the inventor, initially used 14 days but also seven- and nine-day data to trade the short Cycle and 21 or 25 days for the intermediate Cycle.

Rather than use a single period RSI, I use the most recent seven-month, seven-week, seven-day, and, occasionally, seven-hour price series data. I refer to these as the Monthly, Weekly, and Daily market-session timeframes.

I am looking for Commonality, i.e., Cycles of different timeframes to be bottoming or topping simultaneously.

RSI is smoother than the other momentum-based Oscillators and not as susceptible to distortion from unusually high or low prices at the start of the window.

RSI oscillates between 0 and 100, which enables pre-set "Overbought" and "Oversold" levels. When used to determine trading Signals called Buy/Sell Alerts, these levels are typically 30 for Oversold and 70 for Overbought.

Depending on market circumstances — early or late in a Bull or Bear phase, for example, or during periods of extreme or minimal volatility – I often set the oversold or overbought levels at higher than 70 or lower than 30.

The discipline of using a regular period RSI set of rules as a decision-support tool is more important than fiddling with the periods. So, for most market conditions, I use the RSI-7.

Trading Signals if using only the RSI Oscillator

Investors use different trading Signals for (a) range-bound, i.e., sidetracking, or (b) trending, i.e., upward or downward-flowing markets.

In trending markets, Buy or Sell Signals result from

1. Oversold or Overbought RSI levels, plus
2. analysis of Moving Average Converging and Diverging (MACD) patterns.

a. Range-bound markets

Set the overbought level at 70 and oversold at 30 for most stocks.

1. Go long when the RSI falls below the 30-level and rises back above it or on a bullish divergence where the first trough is below 30.
2. Exit when RSI rises above the 70-level and falls back below it or on a bearish divergence where the first peak is above 70.

Consider the effects of Beta, i.e., the measure of a stock's price Volatility with the rest of the market.

For stocks with a high Beta, such as the smaller technology companies and companies subject to extreme media hype, set the overbought level at 80 and oversold at 20.

For long-term oriented investors and extreme trading situations like the possibility of a terminating primary bull or bear phase, use a combination of RSI-7 calculations for Monthly, Weekly, and Daily price series rather than relying on a single time series.

If there is a possibility of a terminating bull phase, all three RSI-7 period values must exceed 70.

I refer to that condition as the "Distribution Zone."

My trading Signal occurs in the Distribution Zone when the Daily RSI-7 falls below 70 or on a bearish RSI-7-to-RSI-14 divergence where the first peak is above 70.

b. Trending markets

In a trending market, unless confirmed by a Trend Oscillator such as MACD, RSI divergences are often not strong enough Signals to trade.

1. Apply only the Signals that occur in the direction of the Trend.
2. In an up-trend, go long when the Daily RSI-7 falls below 40 and rises back above it. Take partial profits on negative divergences between RSI-7 and RSI-14.
3. Exit using a Trend Oscillator such as MACD.
4. Go short in a Downtrend when the Monthly, Weekly, and Daily RSI-7 rise above 60, and the Weekly and Daily RSI-7 then fall below it.

Trading Signals using the Stochastic Momentum Oscillator

Trading Signals for the Stochastic Oscillator are the same as for RSI.

a. Ranging markets

Signals in order of their importance:

1. Go long on %D bullish divergence where the first Cycle trough is below the Oversold level.
2. Go long when either %K or %D falls below the Oversold level and rises back above it.
3. Go long when %K crosses above %D.

Short Signals:

1. Go short on %D bearish divergence where the first Cycle peak is above the Overbought level.
2. Go short when %K or %D rises above the Overbought level and then falls below it.
3. Go short when %K crosses below %D.

b. Trending markets

Because of the sensitivity of the Stochastic Oscillator, I use it in combination with RSI and MACD Oscillators.

The MACD Oscillator is a Trend Indicator, whereas the RSI and Stochastic Oscillators are Momentum Indicators.

Apply Signals only in the direction of the trend. Never go long when the Stochastic Oscillator is overbought, nor short when oversold.

The shape of a Stochastic bottom indicates the type of the next rally. A narrow and shallow base suggests that the market Bears (i.e., those investors who believe that prices are falling) are weak and that the next rally should be strong. A comprehensive, deep bottom pattern Signals that the Bears are strong enough to mute the next rally.

The same applies to Stochastic tops. Narrow tops indicate that the market Bulls (i.e., those investors who believe that prices are rising) are weak and that the next move is likely to be severe. High, wide tops indicate that the Bulls are strong enough to soften the correction.

Trading Signals using MACD Trend Oscillator

The MACD Oscillator is used primarily in Trend Trading, whereas RSI and Stochastics Momentum Oscillators are used in Swing Trading.

Trend Trading is not particularly effective in a range-bound market. MACD (Moving Average Convergence Divergence) should not be relied upon during those times.

MACD, coined by Gerald Appel, measures the distance between two Moving Average lines. He introduced it in his 22-page 1985 book, The Moving Average Convergence Divergence Trading Method.

MACD has its detractors, but the world-leading technical analyst Ian Notley taught me how to use this Trend Oscillator as an effective Technical Indicator. Notley called it the Moving Average Departure analysis.

According to Gerald Appel, Signals happen when the MACD crosses its Signal line, also called the Zero Line, which is a nine-day Exponential Moving Average of MACD.

First, check whether the price is trending. If the MACD is flat or stays close to the Zero Line, the market is sidetracking, and trend-based Signals are unreliable.

Trending market conditions

MACD is a Trend Indicator, whereas the RSI and Stochastic Oscillators are Momentum Indicators. Because of the sensitivity of MACD, I use it in combination with a Momentum Indicator.

Signals are far stronger if there is either:

1. divergence on the MACD line; or
2. a giant swing above or below the Zero Line.

Unless there is a divergence, do not go long if the Signal occurs above the Zero Line, nor go short if the Signal occurs below Zero.

1. Go long when the MACD line crosses the Signal line from below.
2. Go short when the MACD line crosses the Signal line from above.

Note the consistent application of any time-based Indicator is more valuable than the random use of different periods of the same Indicator.

Investors use 7, 9, 14, 21, and 28 periods for lookback periods, whether the timeframes are Daily, Weekly or Monthly. Unless you are an expert in using a particular Technical Indicator, I recommend sticking with 7 or 14.

Bottom line: A Momentum Indicator is an Oscillator-based statistical study of cyclic price Motion, and a Trend Indicator is an Oscillator-based statistical study of price Trends. Both are, by definition, only indications or probabilities, not certainties. Everyone requires experience in the use of Oscillators before relying on them as Indicators for decision-making.