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TAG XVII • Las Vegas '95

Stan Ehrlich

Stan Ehrlich — Cycles, Stocks & Futures

Stan Ehrlich graduated from Southern Illinois University in 1971 and joined Conti Commodities Services in the Fall of that year. After trading for a few years, Stan invented the Ehrlich Cycle Finder, a physical, accordion-like device used to find cycle activity in any chart. The oldest, mechanical, technical analysis tool in the futures industry, traders can use the Ehrlich Cycle Finder on all kinds of markets worldwide.

Often quoted in publications such as *Band With Successful Farming Magazine*, *Crain's Chicago Business Weekly*, *Futures Magazine*, and *Technical Analysis of Stocks and Commodities Magazine*, Stan has appeared numerous times on television and radio. Several Technical Analysis texts mention or detail the Ehrlich Cycle Finder.

Stan has taught at dozens of investment seminars around the world, including some real time trading seminars. In the past Stan has worked with such well-known investment personalities as Jake Bernstein, Robert Prechter and Robert Saperstein. Stan currently faxes a timely technical analysis market letter to his clients every few days.

• Topic: **Finding, Averaging and Forecasting Cycles in the Stock and Commodities Markets**

In Stan's workshop you will learn a very simple method of finding, averaging and forecasting cycles in the stock and commodity markets. Stan will teach you how to recognize, manage and make profitable use of cyclical movements in the markets. He will show you how cycles work with various formations. During his presentation, Stan will integrate cycles with several common tools and technical studies such as the Relative Strength Index and Stochastics. The information derived from cycle studies gives the user an important factor to insert into the formulae in order to make the studies more sensitive and responsive. All stock, futures or cash traders will benefit from Stan's presentation. You will leave his workshop with a greater understanding of cycles as useful timing tools. Stan received high ratings at many previous TAG seminars.

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A complete catalogue of all TAG XVII tapes may be ordered from:

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This Slide Show Presentation
is punctuated with some slides
which contain *animation* and
sound to further enhance the
learning experience.

Topics

Technical or Fundamental Analysis?

What do you need? Daily price charts and historical daily price data.

What amount of data do you need to use? What are you looking for? Short or long term cycles?

An example of a long-term cycle low series. (chart of DJIA 4-yr cycle)

Begin with **Macro** (long term), and
then move to **Micro** (short term).

Topics continued 1

What should you look for when trying to find cycles?

Types of charts (vertical bar charts or candle stick charts?)
daily, weekly, or monthly.

Chart patterns that lend themselves to finding cycles.

- Head & Shoulder patterns, channels, double and triple tops or bottoms, Islands, and Key Reversals.

Examples of sine wave symmetrical and asymmetrical cycles.

Cycles in "Contrary Opinion"

Topics continued 2

Combining cycles of different time frames

Two approaches to finding Cycles.

- Empirical (visual) or
- mechanical (computer)

Using an empirical approach with a mechanical cycle finder.

Looking for Cycle Tops and Bottoms separately.

Subdividing time frames.

Topics continued 3

Transferring cycles from one chart (market) to another.

Detrending data using moving averages.

Technical analysis techniques can help uncover cycles.

Using RSI (Relative Strength Index) to help find cycles.

Using Stochastics to help find cycles.

Using %R to help find cycles.

Why?

We are all aware of many cycles around us, but most of us don't try to make predictive use of them. Cyclical market analysts try to take profitable advantage of these repetitive events.

The purpose of revealing, measuring, tracking, and anticipating historical rhythms in price action is to anticipate when the next rhythmic top or bottom is likely to happen.

Technical or Fundamental Analysis?

Technical traders produce trading signals by analyzing price movement, while the fundamentalist is generally analyzing supply and demand factors and looking for longer term trend changes.

Whichever approach is used, you will agree that **TIMING** is of the utmost importance, especially with futures.

What you need

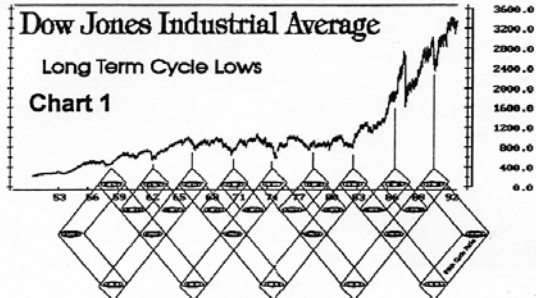
(Daily price charts and historical daily price data)

You will need a daily vertical bar chart of the market that you are going to study. The chart should cover at least 9 months of daily price movement or **more**.

For longer term analysis, you will need weekly and/or monthly charts which cover ten to twenty years or more. Because the characteristics of most of the futures markets changed about 1972-3, it would be wise to obtain long term charts that start about **1972**.

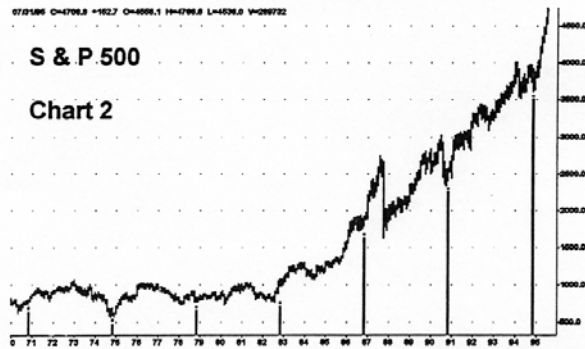
I personally try to acquire as much history as possible.

Here is a 4 year cycle in the Dow.



Some of you may recognize this chart. I've used it several times in years past.

Here is an update of the same cycle on the previous slide, but in the S&P 500.



Begin with **macro** (long term), and
then move to **micro** (short term).

A Perspective:

I prefer to start with the long term charts first. This gives me a perspective as to historical parameters. Where were the major tops and bottoms formed? Are we involved in a major or minor trend? Are there possibly any formations which may have formed or are forming which could be used for price objective forecasting? I start with the **Macro** overall longer point of view and work my way down to very short **Micro** time spans.

You will never know if you are dealing with a major long term cycle top or bottom if you can't see the big picture.

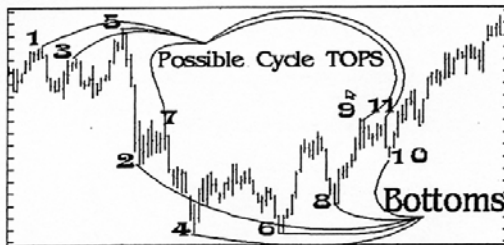
Calendar, week, or trading days?

When I refer to a cycle time span of "X" number of days, I'm quoting the number of "week days" (including holidays) which may fall during the week. Since the number of weekends is a constant, it really doesn't matter if you quote calendar days, including weekends or week days. Just make sure you differentiate. Cycles are not as exacting as we would like them to be in the first place.

What you should look for when finding cycles.
Different types of turning points.

Major turns / Minor turns

Chart 3



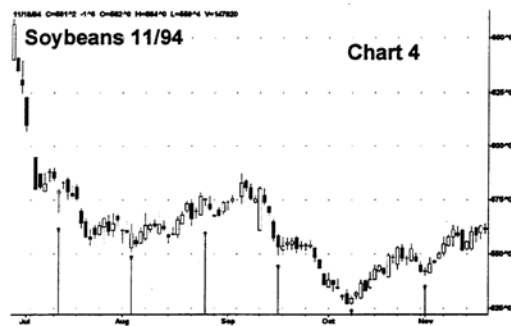
Types of charts (candle stick, or
vertical bar charts) daily, weekly,
or monthly.

**Candlestick charts reveal buy and sell
formations in a different way than "Western"
vertical bar charts.**

**Both use the same underlying data, (i.e. open,
high, low, close).**

**The same information is simply displayed in a
different way.**

Candlestick chart.



Monthly vertical bar chart



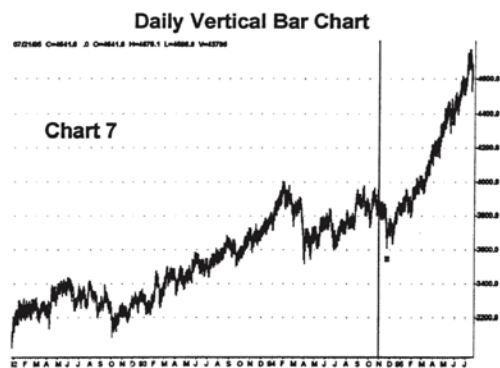
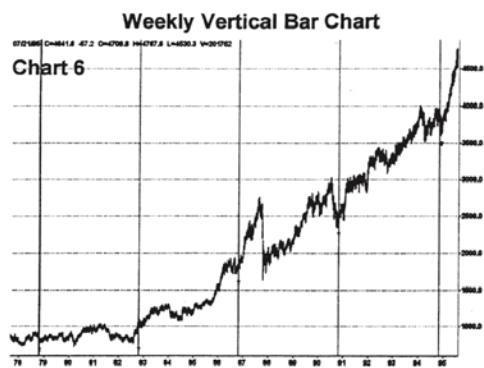
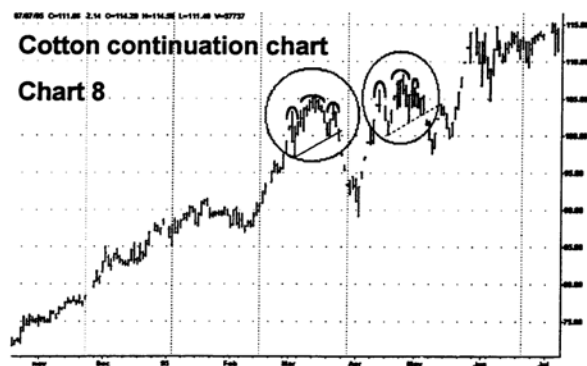


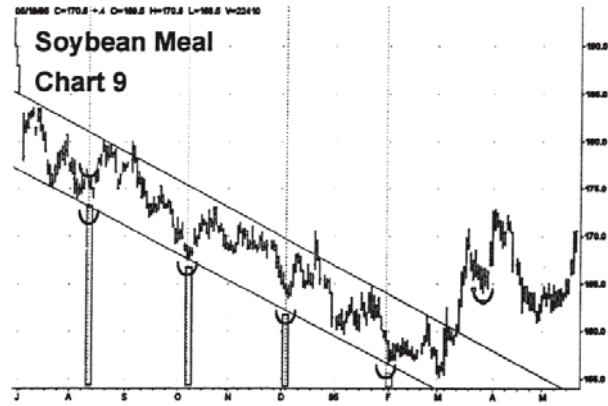
Chart patterns that lend themselves to finding cycles.

- Head & Shoulder patterns
- Channels
- Double tops or bottoms
- Triple tops or bottoms
- Islands Reversals
- "Key" Reversals ("outside" trading range days)

Head and shoulder Tops



Trading channel



Trading channel



This double top is two smaller double tops in themselves.



Copper continuation chart

Chart 12

Triple top - fairly rare.



Island Reversal
A quick bullish or bearish formation.



Key Reversals

A little trick - try putting on the trade on the middle of the range of the "Key Reversal".

"Key Reversal" - daily or weekly - definition:

I define a "Key Reversal" as a day or week when the high is higher than the previous day or week's high, *and* the low is lower than the low of the previous day or week's low. The wider the swing of the Key Reversal (day or week), the more profound the reversal should be.

Key Reversals

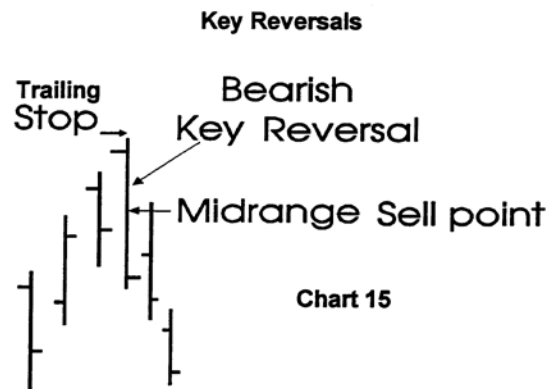
I have noticed that there is a tendency for the market to retrace back into about the middle of the day or week of the reversal. I would say a zone of 10% above or below the middle of the reversal should cover it. This usually happens within a very few days. This phenomena provides an opportunity where a "defined risk" trade might be put on. The stop would normally go just beyond the extreme of the reversal day or week, using a little personal discretion.

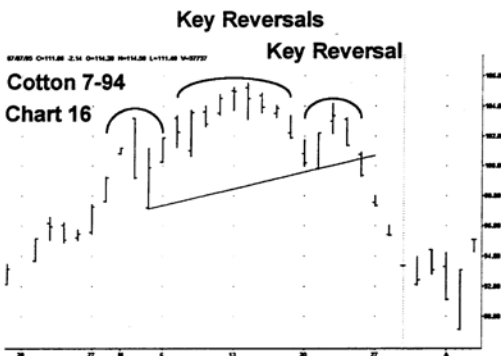
Key Reversals

This produces a
defined risk and a **specific game plan**.

Unfortunately, I know of no way to forecast how far the market may move as a result of this kind of reversal, so I use trailing stops as a means of protecting profits, and other tools to help forecast how far the move may go.

Here is a graphic example:





Examples of sine wave symmetrical and asymmetrical cycles.

There are only a few "physical" technical analysis tools which offer various ways of helping the trader uncover and track cycles. A mechanical cycle finder allows you to find cycles and decide what you like. There are also computer programs which are meant to help you find cycles possibly hidden in the price action. These programs tend to find symmetrical "sine-wave like" types of cycles which would look like this.



Examples of sine wave symmetrical and asymmetrical cycles

Some cycles are asymmetrical and are not of equal time spans from low to high and high to low. Some computerized programs will not find these rhythms easily. Here is an example of an asymmetrical cycle.

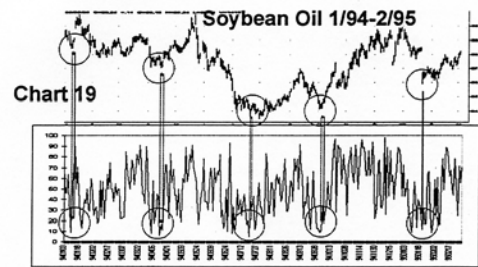
Chart 18



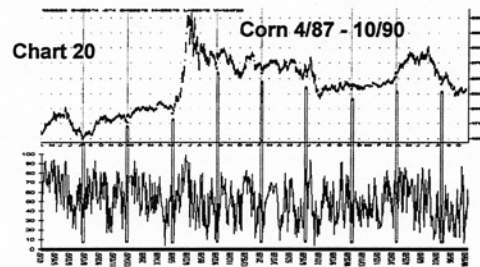
Cycles In Contrary Opinion

When the consensus of opinion gets lopsided to the extent that almost everyone agrees, then its time to do the opposite.

Cycles In Contrary Opinion



Cycles In Contrary Opinion



Combining cycles of different time frames.

It would be inappropriate to imply that, once you have isolated a cycle and experienced its repetitions, it would be an easy task to just "blindly" trade the next cycle turn.

Things get a little trickier than that.

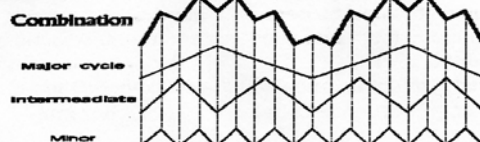
Combining cycles of different time frames.

Unfortunately cycles are not as consistent as we would like. They can be and are affected by many different things. It is necessary to continually monitor their cyclical progress. To complicate things, there are many different cycles of different time spans in the same market. At various times, they may compliment each other (correlate or align together) or offset each other (by creating conflicting forces and therefore conflicting expectations).

Combining cycles of different time frames.

Here is a simplified example of three different rhythms combined into one cycle. Please notice how the result of combining cycles begins to approximate how a normal vertical bar chart might look.

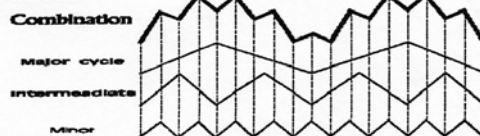
Chart 21



Combining cycles of different time frames.

This Graph deserves special attention - it is the basic representation of cyclic activity in price action. Do you see a head and shoulder top twice? How about a double bottom or two double tops? Are Elliot Waves part of this?

Chart 22



Two approaches to finding Cycles. Empirical (visual) or mechanical (computer)

EMPERICAL APPROACH

An automatic advantage to the empirical investigation process is to allow one to usually find the most dominant cycle in the price action under review first. The cycle which has had the most effect on price action will likely be the first cycle found because it will *stand out* more readily.

Using an empirical approach with a mechanical cycle finder.

Start with the most dominant low in the price action if you are looking for cycle lows. You are making the assumption that this is a cycle low but we don't know what the time span is. Anchor the far right or left hand point of the mechanical cycle finder on a prominent low and begin to expand the tool slowly across the bottoms of the price action. You can use the tool on an angle if the trend of the price action allows. I try to keep the points of the tool as close to the lows as possible without covering any of the price action. The most dominant cycle will usually become quickly obvious .

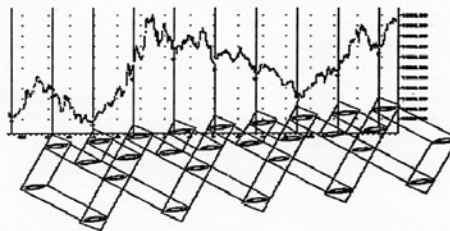
Using an empirical approach with the a
mechanical cycle finder.

You will also be averaging the time span
automatically because the points of the tool
are always equidistant from each other. If the
series of lows don't line up well enough, then
go on to wider spacing "time frames" looking
for rhythms. Experiment with different lows
and spacing of the tool.

Using an empirical approach with a
mechanical cycle finder.

This is actually a Manila Stock which was
easy to analyze.

Chart 23



Using an empirical approach with a mechanical cycle finder.

Another advantage to using a mechanical cycle finder is if you are informed of a cycle of a certain length in a market, it would be easy to spread the points of the tool apart so that the distance between the points would equal the cycle length on the chart you're using. Then all you would need to do is to place the tool on the chart and shift it around a little until the points lined up with the cycle lows or cycle highs which you were informed about. This is a quick way to verify the existence of a supposedly known rhythm. It will also allow you to forecast when the next cycle top or bottom may happen.

Using an empirical approach with a mechanical cycle finder .

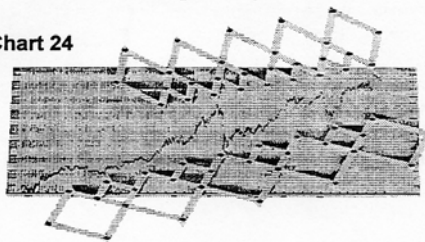
Looking for Cycle Tops and Bottoms Separately.

The cycle finder can be used across the bottoms or the tops, but not both at the same time. After I have found something of interest across the bottom of a market, for example, I will turn the tool around, being careful not to change the spacing of the points and begin to try and find a similar cycle across the tops. If I had found the tops first, I would then look for market bottoms.

Using an empirical approach with a
mechanical cycle finder.

Looking for Cycle Tops and Bottoms
Separately.

Chart 24



Using an empirical approach with a
mechanical cycle finder.

It is not uncommon to find that a cycle can be subdivided, especially with longer term rhythms. It may be fruitful to experiment with dividing the cycle lows or highs by halves or thirds. This will sometimes uncover a usable market cycle which is a harmonic of a longer term rhythm. A mechanical cycle finder makes it very easy to perform this task. Just reduce the spacing between the points by 50% and you have divided the cycle in half.

MECHANICAL APPROACH

Some computer programs provide a periodicity histogram chart indicating how dominant various uncovered cycle time frames may be in the analyzed data. They do not usually provide you with the date of the next expected cycle turn. The higher and steeper the histogram cluster of spikes, the more dominant and obvious the cycle should be. And of course the more profitable it may be.

MECHANICAL APPROACH

The length of the cycle is indicated by counting the number of bars from the right edge. So, if a large sharp peak in the histogram occurred 15 bars from the right, you should be able to locate a 15 day dominant cycle in the price action.

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Some technical analysis techniques can uncover cycles.

I have found it very useful to run a variety of technical analysis studies on the price data. Many times the studies will reveal profitable trading points in time which are cyclical. Some of these market swings are not the bottom of market declines or the tops of rallies. They may be the beginning of a pattern breakout or an increase in market momentum.

Detrending data using moving averages.

Detrending price action is simply another way of viewing price action around a moving average.

This method provides a means of identifying underlying cycles not apparent when the moving average is viewed in its original form.

The process effectively eliminates cycles which are not of the same time period as the moving average from view.

Detrending data using moving averages.

The process involves drawing the moving average line as a straight horizontal basis line on the chart.

Price bars are then repositioned above and below this line depending on their relation to the original moving average line.

This method of revealing cycles needs to be repeated many times starting with a short term moving average and building slowly into a much longer term moving average in order to uncover the various cycles which may be in the data base.

Detrending data using moving averages.

Those who use the "detrend" in cycle studies use the option to "back cast" or "center" the moving average half the length of the moving average.

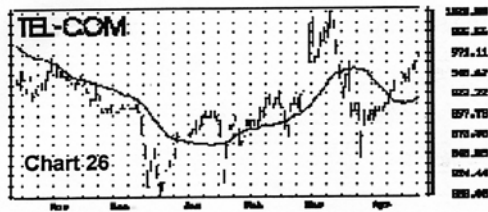
A *non-centered* or "back casted" moving average provides no results for a number of days equal to the moving average period at the beginning of the price chart.

A *centered* moving average, on the other hand, places half of the blank days at the beginning and half at the end of the price chart.

The ("centered" = "back casted") moving average reveals cycles which are exactly the same length as the moving average or very close to the same time span.

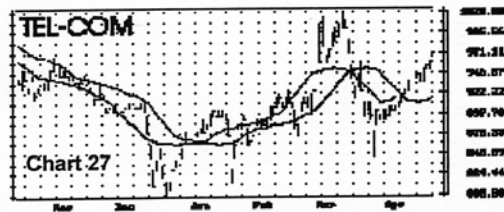
Detrending data using moving averages.

Draw a moving average of "X" days.



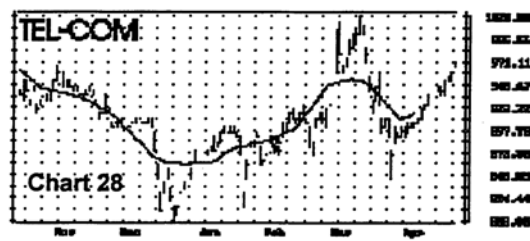
Detrending data using moving averages.

Back cast the moving average by half the length of the time span.



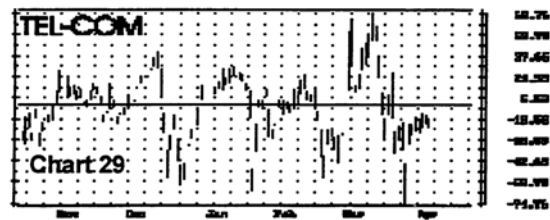
Detrending data using moving averages.

As you can see, the moving average now flows with the rhythm of the market.



Detrending data using moving averages.

Lastly, you detrend the data so that the moving average is flat and the price action maintains its relative vertical perspective to the moving average.



Detrending data using moving averages.

By experimenting with different moving averages you will be able to reveal cycles which may not have been easy to see otherwise.

Then you can transfer the rhythm to the price chart and make use of it's predictability.

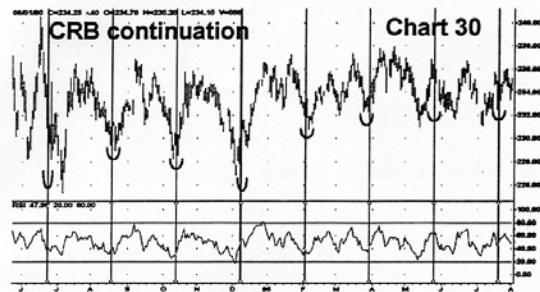
Technical analysis techniques can help uncover cycles.

Many technical analysis "studies" are confined in a relatively small horizontal zone and the scale is often from 0-100. This allows the "study" to reveal rhythms in price action which would not be seen so easily in just the price chart. The usual price chart has much larger and more erratic looking swings. It is hard for the eye to reveal rhythms in that kind of data.

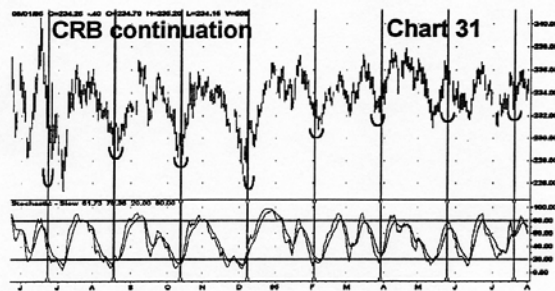
Keep in mind that a cycle low or high does not need to be an obvious bottom of a decline or the top of a rally.

Also keep in mind that the highest high in price action may not be the highest high on the study. This may set up a "divergence" top or bottom in the study!

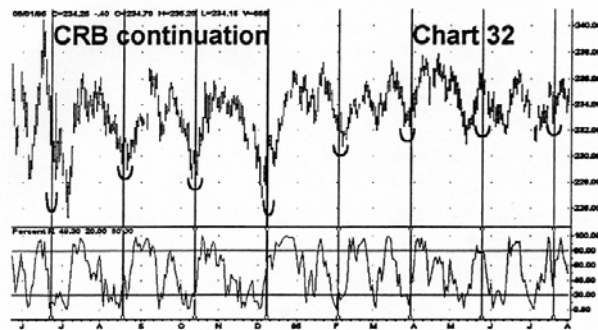
Using RSI (Relative Strength Index) to help find cycles.



Using Stochastics to help find cycles.



Williams %R



Summary

Technical or Fundamental Analysis?

Daily price charts and historical daily price data.

What amount of data do you need to use? What are you looking for? Short or long term cycles?

Begin with **Macro** and move to **Micro**

What should you look for when trying to find cycles?

Chart patterns that lend themselves to finding cycles.

Head & Shoulder patterns, channels, double and triple tops or bottoms, Islands, and Key Reversals.

Types of charts (vertical bar charts or candle stick charts?) daily, weekly, or monthly.

Examples of sine wave symmetrical and asymmetrical cycles.

Combining cycles of different time frames.

Summary

Two approaches to finding Cycles.
Empirical (visual) or mechanical (computer)
Using an empirical approach with a mechanical cycle finder.
Looking for Cycle Tops and Bottoms separately.
Subdividing time frames.
Transferring cycles from one chart (market) to another.
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