

TradeRiskManagement

Futures and Stock Analysis

What is Trade Risk Management?

Trade Risk Management is a technical methodology for identifying overbought and oversold markets and then using a contrarian trading strategy to trade those markets with reduced risk. With the introduction of Trading Signals, Trade Risk Management offers an approach to identifying overbought/oversold trading opportunities along with actual buy and sell signals!

In addition to a buy or sell signal we can now also evaluate the quality of such signals. This, we believe to be something new. There are many services that provide traders with systems that give buy and sell signals. But, to our knowledge, no service actually provides their customers with a service that evaluates the quality of their signals based on probability bands. With other services it's buy here, sell here. Nothing more said.

At Trade Risk Management you'll find charts for stock markets around the world, international world currencies, spot prices (including the base metals of the London Metal Exchange) and commodity futures prices. If there is a special time series you would like to see displayed on a regular basis, or have any comments about improvements to the website, please email me. I look forward to hearing from you.

What are Trading Signals?

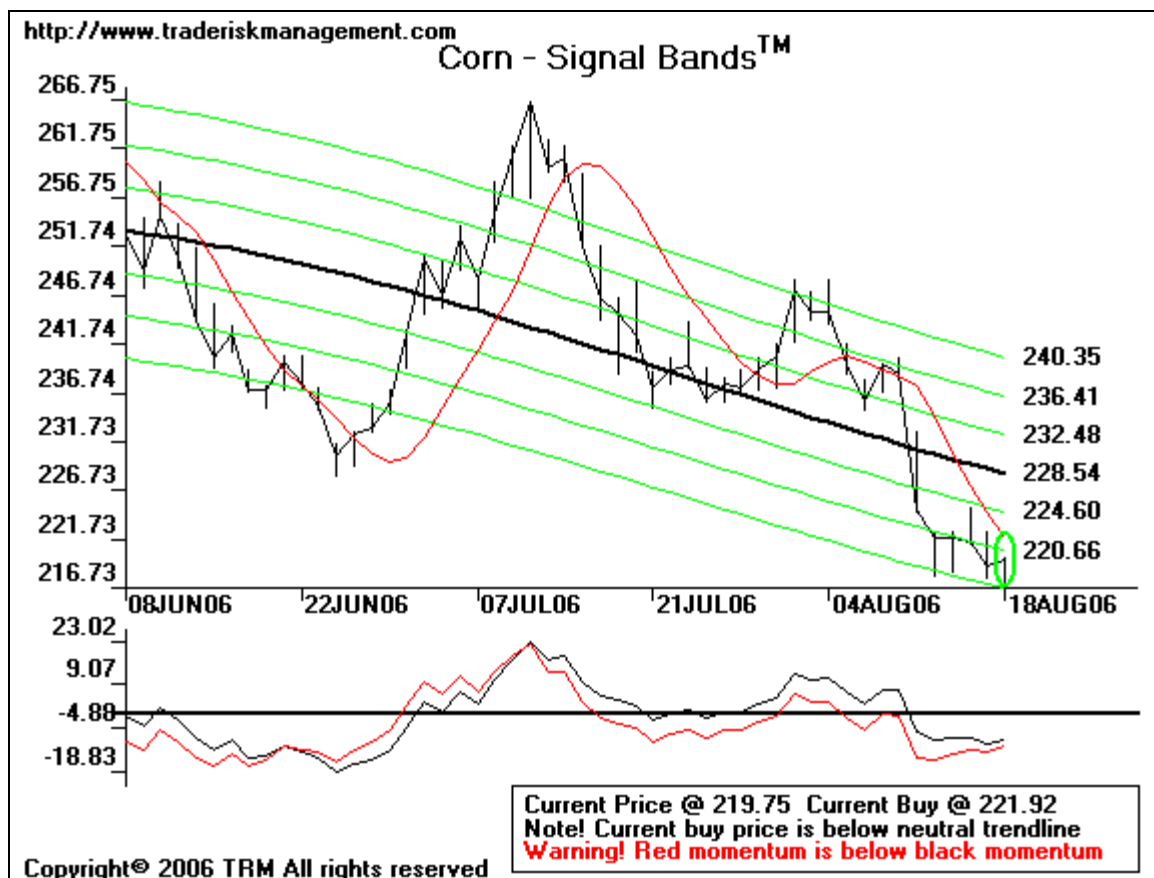


Chart 1

To get a better idea of what Trading Signals are, focus your attention on the image displayed in Chart 1 above.

Trading Signals are based on the idea that buy/sell signals are generated when the price crosses above and below a trendline. Usually, this trendline is a moving average or some exponential smoothing of the prices. But, in TRM's Trading Signals this trendline (**always displayed in red!**) is calculated according to a proprietary algorithm. Nevertheless, the use of the red trendline conforms to customary crossover usage. Thus, when the price moves above the red trendline we have a buy signal and when the price falls below the red trendline we have a sell signal.

Notice also that the current price is displayed in the box toward the bottom of the chart. Also, the latest buy or sell price is displayed. This buy/sell price is simply the current value of the red trendline. As we will see later this value can also double as a stop loss point.

In addition to the prices and red trendline you will notice that we also display a set of the Sigma Bands. Note that these Sigma Bands are not the same Sigma Bands that appear on TRM's Sigma Band chart. These Sigma Bands are designed to respond faster to changes in both price and momentum. The Trading Signal chart shows the position of the current price in relation to the bands. Thus, in each case, we see if the price is overbought or oversold, as defined in terms of probability.

Finally, notice that the box also contains some comments and warning messages. These messages refer to the "quality" of the buy or sell signal. We'll discuss these messages in detail later on in the FAQ.

What are the benefits of the new Trading Signals?

The new Trading Signals are designed to give frequent buy and sell signals. In addition, our new Trading Signals are designed to show where the buy/sell signal occurs within relation to the Sigma Bands and to show what is happening with momentum when the buy or sell signal occurs. This then gives us the ability to judge the quality of the buy and sell signals. After all, not every signal can be expected to result in a successful trade. However, with the ability to judge the quality of the signal the trader has a better chance of being on the winning end of a good trade and also a better chance of avoiding being on the losing end of a bad trade.

What are the differences between Signal Bands and Trading Signals?

There are two main differences between Signal Bands and Trading Signals. First, the original Signal Bands were designed to give the trader an entry point into an overbought or oversold market based on the overbought/oversold conditions indicated by the Sigma Bands chart. The new Trading Signals are more of a stand alone chart. In fact, the Sigma Bands that are displayed are not the same Sigma Bands shown on our Sigma Bands chart. They are designed to react faster to changes in the underlying prices. The trader may act on a buy or sell signal with the new chart without actually consulting the original Sigma Bands chart, although this is not advisable.

The other big difference between the two charts is the original Signal Bands attempts to give an entry point but no exit point. The new Trading Signals give both. The new Trading Signals track a buy or sell signal as it is unfolding. Once the buy or sell signal occurs the algorithm switches mode and tracks the next sell or buy signal. This process toggles back and forth indefinitely.

What is the "Fundamental Rule"?

The "Fundamental Rule" simply says:

"The further away the price is from the solid, neutral trendline the higher the profit potential."

The reason the Fundamental Rule is important is because it allows the trader to spot situations when a trade can be initiated in either an overbought or oversold region. Prices are naturally distributed around the solid, neutral trendline on the Sigma Band chart. The distributions of the price deviations from this solid neutral trendline are naturally bell shaped in appearance. Overbought and oversold regions are defined as the "tails" of this bell shaped curve. The probabilities associated with the tails are very low. Thus, when prices move into the tails, that is, the overbought or oversold regions, then prices will naturally migrate back to regions of higher probability, that is, toward the solid, neutral trendline.

What messages are displayed on the chart?

There can be as many as three lines of messages included in the Trading Signals chart. The first line is always the same. It tells you what the current price is along with the latest buy or sell information. As stated before, when the price moves from below to above the red trendline we have a buy signal and the buy point is the value of the red trendline. Similarly, when prices move from above to below the red trendline we have a sell signal and the sell point is the value of the red trendline.

The second and third line can vary depending of the quality of the buy or sell signal. The messages are one of three types: "Notes", "Warnings", and "Danger". A "Note" is simply a notational message informing the trader that the signal is occurring under normal circumstances. A "Warning" message is a message informing the trader that a signal is occurring under less than optimal circumstances. Finally, a "Danger" message is informing the trader that the buy or sell signal is occurring under very undesirable circumstances. Chart 4 below illustrates all three types of messages.

What does the first message line say?

The first line always gives information about the trade. First, it gives us the current close or settlement price for the market the chart pertains to. It then gives the buy or sell price that is currently in effect. This is the price at which the price crossed over the red trendline. The third value is the current value of the red trendline. It can be used as a stop loss point. More will be said about this later.

What are "note" messages?

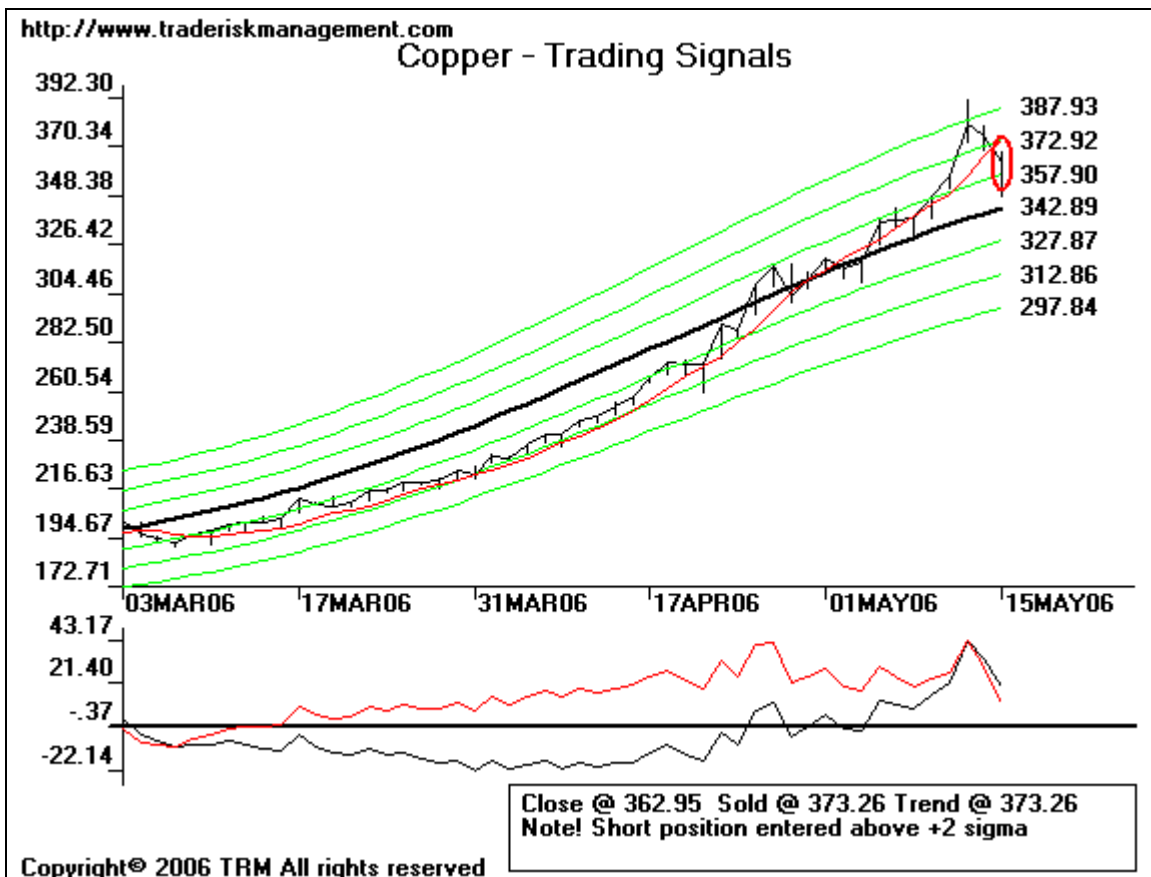


Chart 2

"Note" messages are designed to be information messages concerning the buy or sell signal. When a signal occurs it can occur under negative conditions or it can occur under conditions that the trader would expect to see happen. For example, ideally a sell signal occurs when the price is in an overbought region. One could then expect to see a confirmation message informing the trader that such a signal has occurred. This is a "note" message. Chart 2 above illustrates the "note" message for a successful sell signal in the Copper market.

What are "warning" messages?



Chart 3

"Warning" messages are designed to be actual warnings that a buy or sell signal has occurred under less than optimal trading conditions. For example, suppose a buy signal is generated when prices are close to the solid, neutral trendline. Ideally, a buy signal should occur when prices are below the -2 Sigma level. If the buy signal occurs well above the -2 Sigma level, then a warning message notifying the trader of the less than ideal buying conditions, is generated.

Warning messages are generated to simply let the trader know that something may be wrong. The trader can still act on them. It's a judgment call. For example, suppose a sell signal occurs with prices coming down from above the +2 Sigma level? Since the sell signal occurs below the +2 Sigma level a warning message could appear. However, if the same signal had occurred just above the +2 Sigma level then a "note" message would have been generated. Under these conditions a trader may indeed want to take a sell position. Again, it's a judgment call.

Chart 3 illustrates this condition. Notice that the sell signal occurs at around +1.5 Sigma. This could be a good sell signal. But, because the sell signal occurred below +2 Sigma the trader gets a warning message. It's the trader's decision to act or not act on this signal.

What are "danger" messages?



Chart 4

"Danger" messages are designed to be extreme warnings that a buy or sell signal has occurred under very dangerous trading conditions and should be questioned by the trader. For example, suppose a buy signal is generated when prices are in the overbought region, that is, above +2 Sigma. Ideally, a buy signal should occur when prices are below the -2 Sigma level. If the buy signal occurs when prices are in the +2 Sigma level, then a "danger" message is generated. Essentially, a buy signal has occurred when the trader would expect a sell signal.

Chart 4 illustrates a bad sell signal. Notice the sell signal occurs below the -2 Sigma level, that is, in the oversold region. Why would one want to sell something that is oversold? Not surprisingly, a "Danger" message is displayed. And as it turns out the sell signal was a false sell signal. Sugar prices gave a buy signal within a couple of trading sessions and now Sugar prices are well above their -2 Sigma level.

Traders should always take "danger" messages very seriously. Danger messages are designed to keep the trader from making bad mistakes.

What about momentum analysis!??

In our analysis of Sigma Bands we have always stressed the importance of momentum analysis. Nothing has changed here. Momentum analysis is designed to keep the trader out of bad trades and to help identify successful buy or sell signals.

In momentum analysis we monitor the relationship between the red and black momentum lines displayed at the bottom part of the chart. Consider, as an example, the red and black momentum lines at the bottom part of the chart labeled "Chart 1" above. Notice, that when the buy signal occurs, that is, at the time when the green ellipse occurs, the red momentum line has converged to the black momentum line. In this case the two momentum lines have simply converged, not actually crossed. Ideally, we would like to see the red momentum line move above the black momentum line.

Ideally, when a buy signal occurs we see the red momentum line over black momentum line. This confirms that momentum is strengthening. This is what the trader should look for. When a buy signal occurs look for strengthening momentum. When a sell signal (a red ellipse) occurs look for weakening momentum. In Chart 1, the two momentum lines are converging at a sufficient rate that one can conclude the red momentum will remain above the black momentum line during the buy signals lifetime.

Ideally we should always see the red momentum line cross the black momentum line as a buy or sell signal is occurring. However, in practice this does not always happen. So, if the red and black momentum lines have not actually crossed then look to see if they are at least getting closer and closer to each other. In other words, are the two momentum lines "converging?" Converging momentum lines can be a good sign that prices are preparing to reverse direction. But be careful here. Converging momentum lines are not as good an indicator as momentum lines that have actually crossed. Just how close should the lines be? That's a judgment call.

In Chart 1 above the red and black momentum lines are converging. So the trader needs to decide if this is a good buy signal. As it turns out it was an excellent buy signal and well worth the risk. But, again it is a judgment call.

Notice in Chart 2 that we have an excellent example of a good sell signal. When the sell signal occurs the red momentum line has dropped below the black momentum line. This helps confirm the validity of the sell signal, which turned out to be an extremely profitable trade.

The trader should always be concerned when a buy or sell signal occurs with the momentum lines getting further apart. Diverging momentum lines usually indicate that the prices may continue in the direction the momentum is already indicating.

What about stop loss points?

There are those who hate stop loss orders, do not use them and recommend no one else use them. On the other hand there are those who swear by them and would not think of trading without them. We take the view that it's up to the individual trader to decide for themselves where stop loss orders fit into their trading strategies.

We don't actually use any kind of special algorithm to compute a stop loss point. However, we define buy and sell signals by the value of the red trendline. When prices cross the red trendline it is a buy or sell signal. Therefore, one could consider the current value of the red trendline as a stop loss point. For example, suppose one is in a buy position. Then the current value of the red trendline could easily be used as the current stop loss point. If the price were to drop below this point it would automatically trigger a clearing of the position. Does one then also want to turn around and use the same red trendline value to initiate a sell position? That, of course, is up to the trader. Again, it's a judgment call.

Notice on Chart 1 above that the first line ends with the words "trend @". This is the current value of the red trendline and could be used as a stop loss point, if one so chooses.

What kind of signals should I look for when I want to buy?

If you're looking to buy the first thing to look for is the present price in relation to the Sigma Bands. Ideally, prices should be below the -2 Sigma level or at least close to the -2 Sigma level. Remember, the Fundamental Rule tells you that the profit potential increases the further below the solid trendline the current price is. So if the buy signal were to occur at the -3 Sigma level it would be better than a buy signal at the -2 Sigma level.

The next thing to look for is the actual buy signal itself. Has it occurred or is it so close to occurring that you're willing to assume the risk that it will occur? Never buy if it appears that a sell signal is eminent.

Finally, check to see if momentum is going your way. If you're going to buy you should feel comfortable that momentum is strengthening. Without momentum going in your direction the profit potential could be very disappointing. Chart 1 illustrates these ideas.

What kind of signals should I look for when I want to sell?

If you're looking to sell the first thing to look for is the present price in relation to the Sigma Bands. Ideally, prices should be above the +2 Sigma level or at least close to the +2 Sigma level. Remember, the Fundamental Rule tells you that the profit potential increases the further above the solid trendline the current price is. So if the sell signal were to occur at the +3 Sigma level it would be better than a sell signal at the +2 Sigma level.

The next thing to look for is the actual sell signal itself. Has it occurred or is it so close to occurring that you're willing to assume the risk that it will occur? Never sell if it appears that a buy signal is eminent. Chart 2 illustrates these ideas.

Finally, check to see if momentum is going your way. If you're going to sell you should feel comfortable that momentum is weakening. Without momentum going in your direction the profit potential could be very disappointing.

Don't be too precise in your selections!

TRM's Trading Signals will be giving you many buy and sell signals. It will be up to you to filter out which signals you choose to act on. But in our discussion on what criteria you should use to make decisions, things can get a bit "fuzzy", such as buying or selling outside the +/- 2 Sigma level. For example, suppose that prices are just at the 1.95 Sigma level? Should you act then? It's up to you but don't be too exact. Prices may not go any higher and you may be getting a good sell signal. So use some judgment here. Things are not that absolute that prices MUST satisfy the criteria. There will be many good buy and sell signals you may pass up if you become too literal. Use some judgment here!

What are Curvilinear Envelopes?

The curvilinear envelope (see the chart below) is an approach to cycle analysis originally suggested by J. M. Hurst in his 1970 ground breaking book "The Profit Magic of Stock Transaction Timing". Here one sees how the data fluctuates between a set of inner and outer envelopes. The inner envelope represents the dominant cycle plus trend in the data. The outer envelope represents the trend after the cycle is removed. If one has an idea which way the envelopes are moving, one has a pretty good idea of the direction of the prices, since the data always remains nominally within the envelopes.

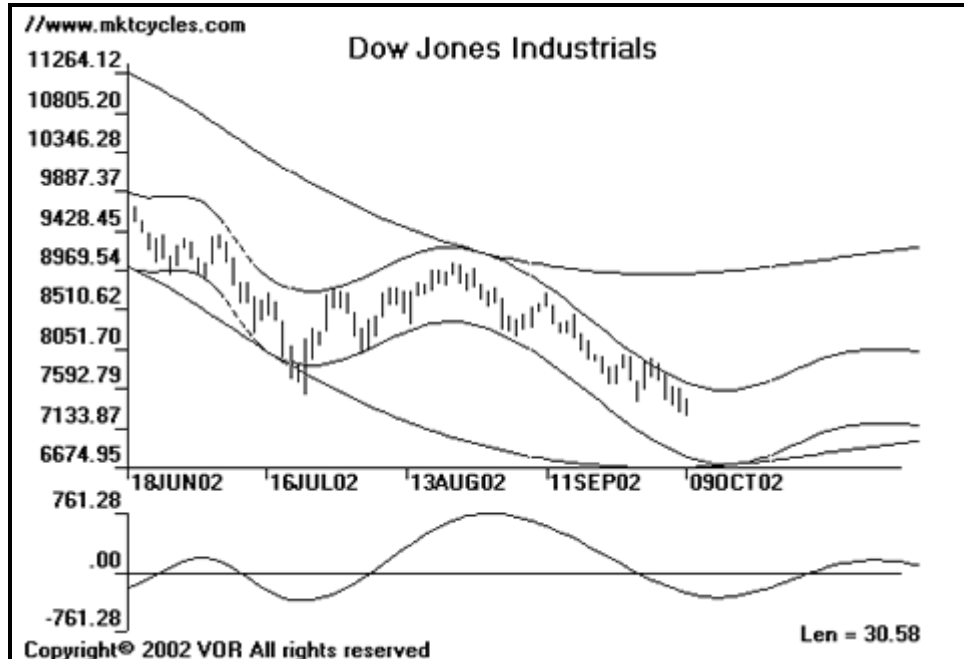


Chart 5

The cycle at the bottom of the graph is based on computations using the inner and outer envelopes. The "len=..." is the average length of the cycle displayed (the calculations are made based on the *average* time difference between one low point to next low point).

What are Sigma Bands™?

The Sigma Bands™ chart (see the chart below) is an indication of the overbought/oversold nature of prices. The dark center line through the data is a long term trend line.

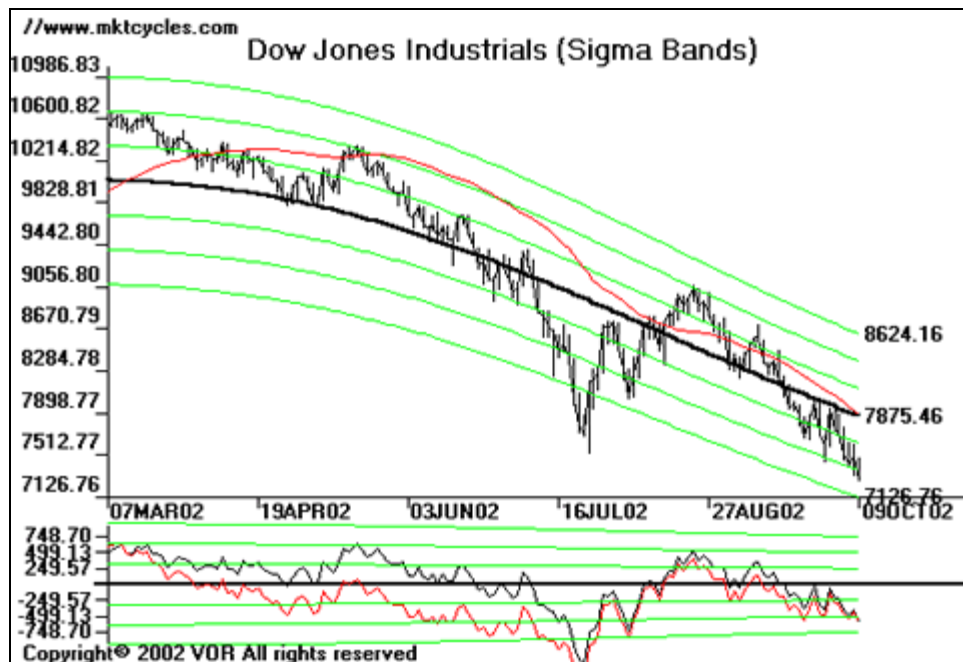


Chart 6

The three lines above and below this trend line are the 1, 2 and 3 standard deviations of the *percent change* of the actual data from the trend line. Anytime the data deviates above or below two standard deviations from the trend line, an extreme condition starts to take place (a condition that only occurs 2% of the time!), and the probabilities for a reversal start to increase dramatically. It's at these extreme conditions a trader can consider taking contrarian positions that provide minimal risk and high profit potential.

NOTE: It is the Sigma Bands™ chart which is the key to minimal risk trading. Following the rules to be stated later one will be able to use the Sigma Bands™ charts (along with the other charts) to take positions in the market where the prices remain overbought or oversold less than 2% of the time!

What are Cycle Decomposition Charts?

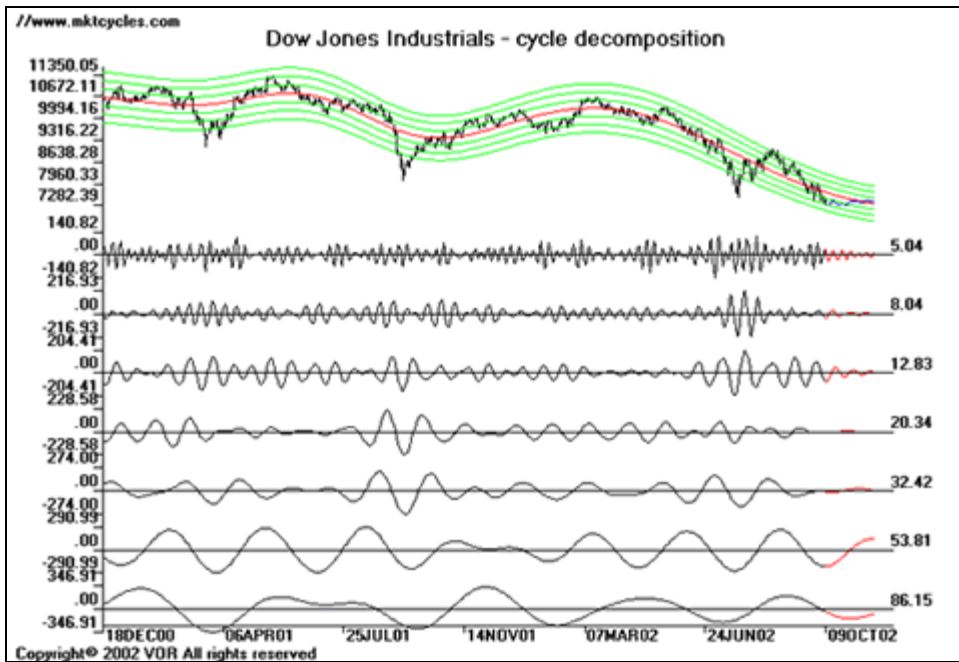


Chart 7

The cycle decomposition chart (see the chart above) is conceptually very simple. Simply add the values of all the sinusoidal type waves displayed below the price action, to the trend line passing through the original time series, and one gets the original time series to within a small random variation. In addition, Sigma Bands™ calculations similar to the ones discussed above are included. As before, these bands give the trader an indication of overbought/oversold conditions. In addition, as we'll see later, the red trend line passing through the data is extremely important, so be sure not to overlook it.

What are Signal Bands?

The signal band charts are used to help pinpoint when to actually enter a position based on when the Sigma Bands™ charts are alerting you to an overbought or oversold position.

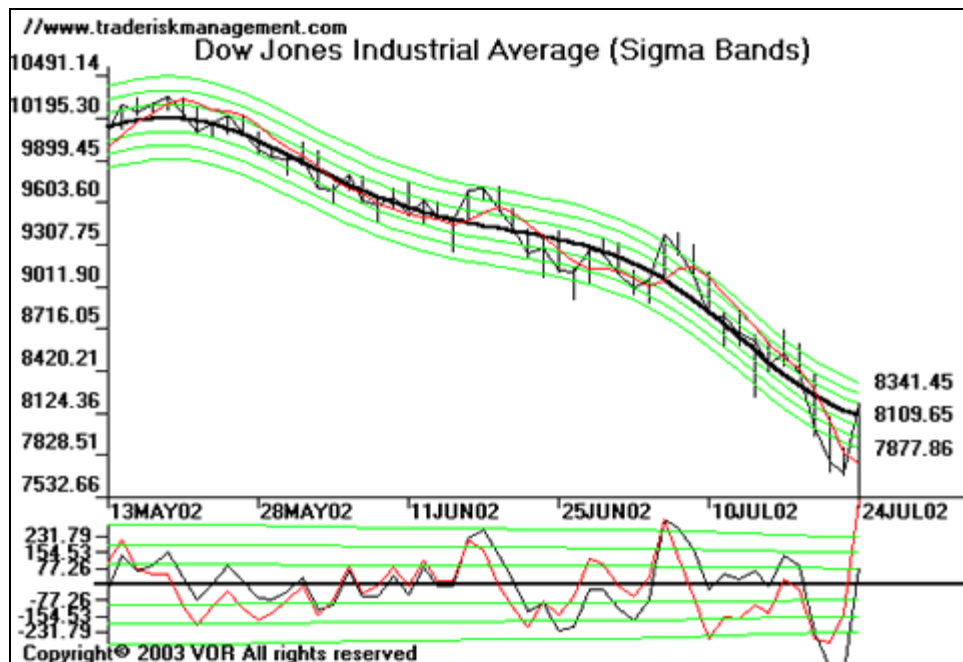


Chart 8

Like the Sigma Bands™ the signal band charts have a trendline and three sigma lines above and below the trendline. However, they are not used in the same way. Notice that both charts show a red line running through the prices. It's this red line that is of importance in the signal band chart. In the Sigma Bands™ the red line is of very little importance. What you most look for in the signal bands is when the prices are ready to cross this red line (very much like a signal crossover system using moving averages).

Note: You have probably noticed that the charts show "Sigma Bands™" for both Sigma Bands™ and signal bands. This is because signal bands are actually Sigma Bands™ of shorter duration. They are based on a preset parameter. For signal bands the control parameter is 21 periods, for Sigma Bands™ the parameter is 250 periods. So for daily data signal bands are based on 21 days, or one trading month, and Sigma Bands™ are based on 250 days, or one year.

What do I look for in the curvilinear envelopes?

For this discussion please refer to the sample curvilinear chart provided above and duplicated below.

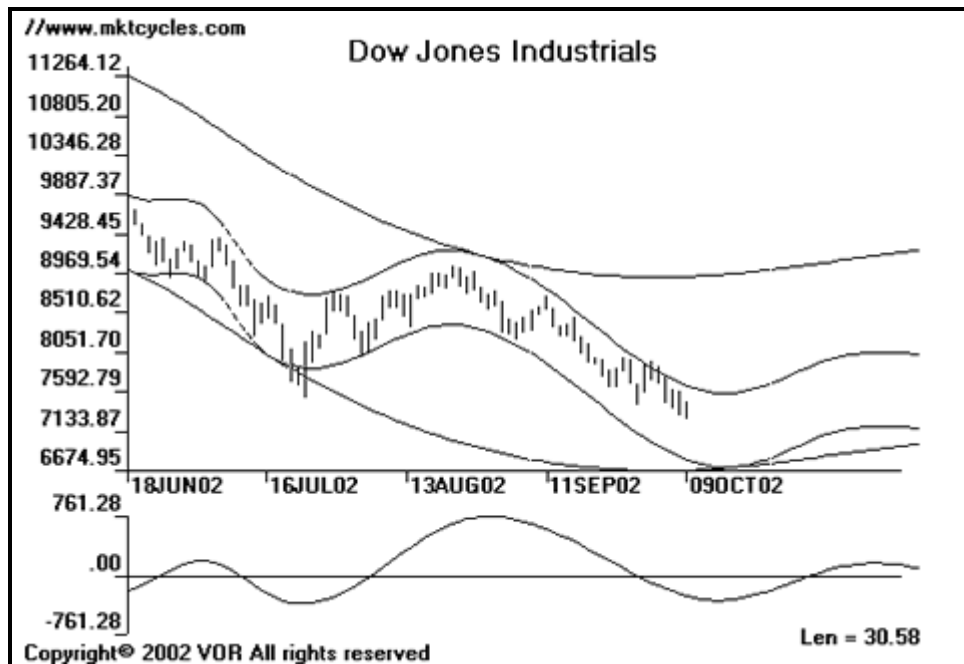


Chart 9

A number of points need to be made concerning the curvilinear envelope charts:

- The overall expected path for future prices, based on present data, is displayed, so one does not have to guess. The envelopes are designed so that the prices remain within the bands. Thus, depending on the direction of the bands, the price is expected to fluctuate within the bands.
- The wave that is displayed below the envelopes is the dominant cycle in the price. Always watch the **amplitude** of this wave. If this amplitude "damps out", it is an indication that the cycle is dissipating its energy and the **trend** will dominate. If such a situation occurs the envelope charts will cease to show wave behavior, and the charts will look very choppy.
- **You must watch the charts every day! The algorithms are adaptive and very sensitive to changes in market conditions and will reassess conditions very quickly when the need arises.** Daily monitoring of all three charts is absolutely imperative, especially when one is considering taking a position, or is in a position!

What do I look for in the cycle decomposition charts?

For this discussion please refer to the sample cycle decomposition chart provided above and duplicated below. As with the curvilinear charts, a number of points need to be made concerning the cycle decomposition charts:

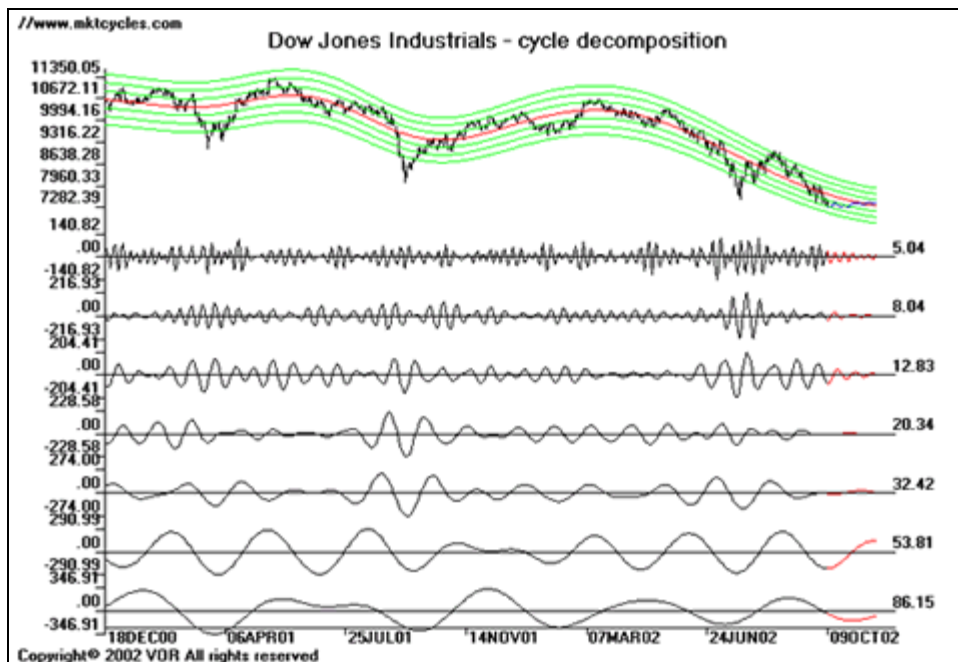


Chart 10

1. The cycle decomposition chart displays the extensions of the individual waves (in red) and its cumulative effect on the price (in blue). Consequently it is not necessary to try to manually add the waves to get a price forecast.
2. Always monitor the direction of the predicted red trend line passing through the prices, and be very careful taking positions that go against it! If the extrapolated trend is sideways, then playing the cyclic action is acceptable. However, if the red trend line is trending steeply up or down, then playing a cycle contrary to the direction of this trend is risky at best.
3. By monitoring the **amplitudes** of the individual waves one can get an idea what cycles are dominating the price action now and in the future. The waves with the largest instantaneous amplitudes are the dominate cycles. Watch how their amplitudes expand and contract. Also, watch how the dominate waves "rotate". At times one or two waves will have large amplitudes. Then, over time, these waves will loose their amplitude strength and other waves will grow in amplitude.

What do I look for in the Sigma Bands™ Charts?

For this discussion please refer to the sample Sigma Bands™ chart provided above and duplicated below. As with the curvilinear charts and cycle decomposition charts, a number of points are in order:

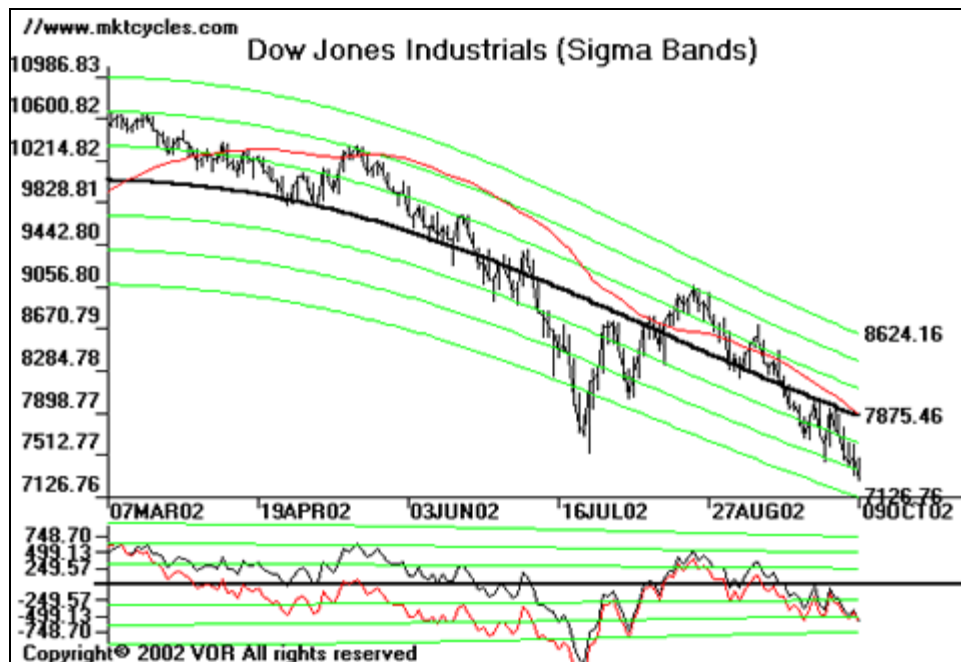


Chart 11

1. **Of the four charts, it is the Sigma Bands™ chart which is the most important!**
2. The first thing that the Sigma Bands™ tell us is when a price is probably overbought or oversold. The bands represent standard deviations of the percent deviation of prices from nominal levels. Thus, when the prices are outside the plus and minus two Sigma Bands™, the price is correspondingly overbought or oversold. It is at these times that prices are at levels for a probable reversal.
3. The second piece of information is contained in **comparing** the red and black lines located below the prices and their Sigma Bands™ (these are referred to as the red momentum and black momentum lines). Whenever you see a divergence taking place between the red and black momentum lines, it is typically accompanied by a significant price move, either up or down. Conversely, if the two lines are practically on top of each other and the bands are moving sideways, this situation typically corresponds to a period of sideways, damped out price motion for the most part. When, the two lines are on top of each other, and the bands are moving sideways, it is an indication that prices will follow a trendless path. Prices will tend to drift within the plus/minus two Sigma Bands™. Finally, if the red line starts to diverge from the black line momentum, this indicates possible accelerating prices, whether up or down, depending on whether the red momentum is pulling above and away or declining faster than the black momentum line.
4. As with most momentum indicators, when the price declines or advances are not being confirmed by new highs or new lows in the momentum, a reversal is indicated. For example, notice the decline in October, 2002 tested the July, 2002 low. However, the momentum was not confirming this decline and the prices were again touching the minus two sigma levels! Needless to say, the prices for the Dow Jones Industrials are now significantly higher. This is the kind of technical chart situation that dreams are made of. If one had bought one Dow Jones futures contract, the minimal profit potential was 500 points or \$5000!
5. The red line passing through the prices is the difference between the closing price and the red line below the sigma bands™. It can be used as a secondary buy signal, much like moving averages are used; i.e., when the price penetrates to the upside, buy, and when the price penetrates to the downside, sell.

What do I look for in the Signal Band Charts?

For this discussion please refer to the sample signal band chart provided above and duplicated below. As with the curvilinear charts and cycle decomposition charts, a number of points.

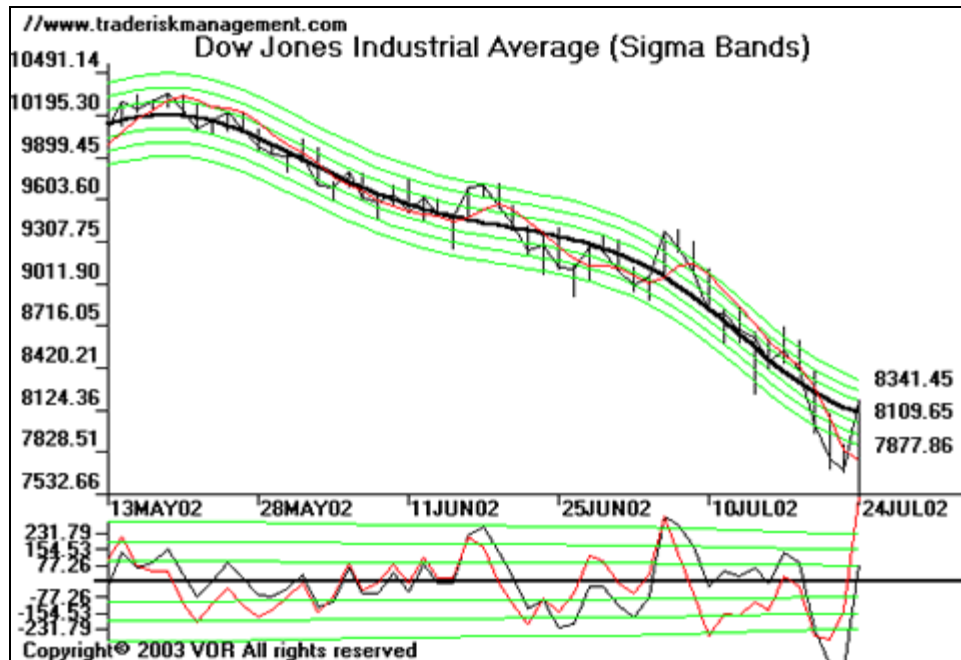


Chart 12

1. The signal band charts serve only one purpose; namely, to give an advanced buy or sell signal. The idea behind this strategy is very similar to the trading technique using a moving average. There, when the price falls below a moving average one sells and when the prices rise above the moving average one buys. The red line running through the prices serves the same purpose as a moving average. Keep in mind however that the red line through the prices is NOT a moving average.
2. Unlike the standard moving average crossover, we have an added advantage. Specifically, we can also watch when the red momentum line (at the bottom of the chart) crosses above and below the corresponding black momentum line. This crossover typically happens one day before the corresponding price crossover. Notice, for example, in the signal band chart for the Dow Jones Industrial Average, the red momentum line crossed over the black momentum line just one day before the corresponding price. The price crossover was enormous, but don't expect that kind of behavior in general.
3. The crossover signals should only be used when the other charts are indicating either an overbought or oversold condition. Notice, on the above chart, for example, that a number of crossovers resulted in whipsawing. This you want to avoid by using the crossover technique only when extreme conditions are in play to begin with. Then, the probabilities increase dramatically that the buy or sell signal will be a valid one.

What is "Momentum Inversion"?

Simply put, "momentum inversion" is when the red and black momentum lines on the Sigma Bands™ charts cross each other. The chart below illustrates momentum inversion occurring at the **top** of the bull market in the NASDAQ. When everyone was convinced the NASDAQ was going up forever, the Sigma Bands™ were telling a far different story.



Chart 13

Notice how the red momentum line had fallen below the black momentum line as the NASDAQ was making new highs. That's classic **momentum breakdown**. In addition, the NASDAQ was approaching plus three sigma(!), an extremely overbought condition. Prices in excess of two sigma and momentum inversion showing momentum breaking down. This is one of the two ideal set of conditions for a short (or at least an exit from this market).

Naturally, for a buy condition you would look for momentum inversion in reverse; i.e., the red momentum moving **above** the black momentum line with prices below minus two Sigma. When the red momentum is crossing the black momentum to the upside it indicates the momentum is getting stronger. With prices below minus two Sigma the likelihood for a price reversal is extremely high. One should get out of any short positions and consider going long!

Watch out for the "blowout!"

The last few weeks of July, 2002 were a dismal time for many on Wall Street. The Dow Jones Industrial Average was not only making new lows but there was also much "doom and gloom" on the Street. Was the world coming to an end? Take a look at the Sigma Bands™ chart below.

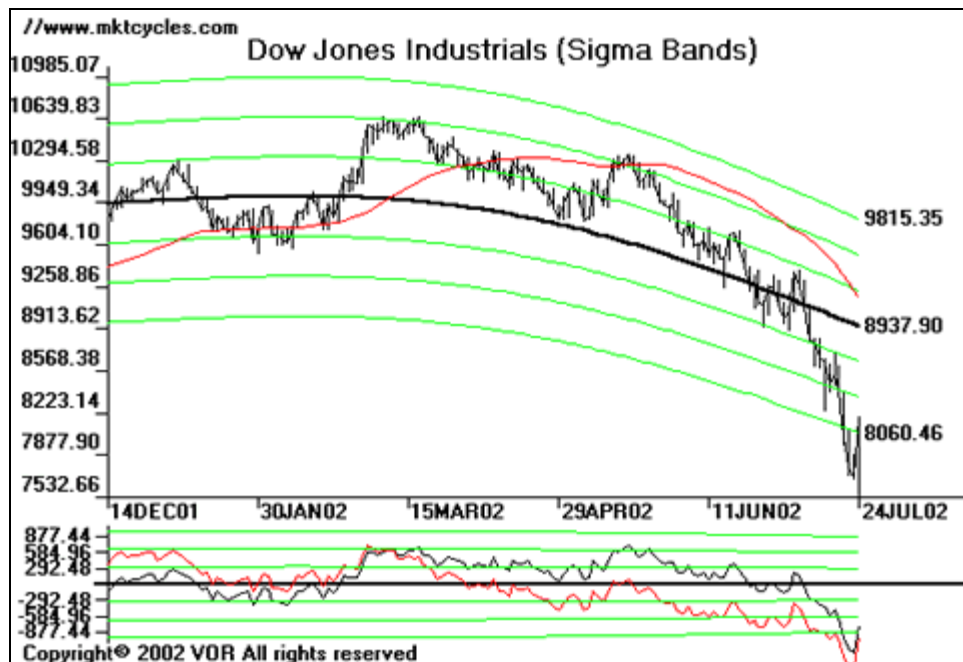


Chart 14

On July 24, 2002 the Dow made a new low and then an intraday reversal. But notice where the new low occurred. When the new low occurred the Dow was below minus **FOUR** sigma!!! When prices reach such extremes a "**blowout**" is said to have occurred. It is rare indeed but when it happens it presents a golden opportunity for profits to be made; that is, for those with the nerve (and the money!) to take a contrary position! Before the Sigma Bands™ charts came along it was practically impossible to spot a blowout and consequently making money during one was a high risk endeavor to say the least. But with Sigma Bands™, not only can one can spot a blowout, but now can identify the proper entry point for taking a position. Only Sigma Bands™ can give this kind of confidence.

Is momentum confirming price?

There are two types of momentum analysis. One is "momentum inversion". The other is price/momentum confirmation. Take a look again at the Sigma Bands™ chart below.

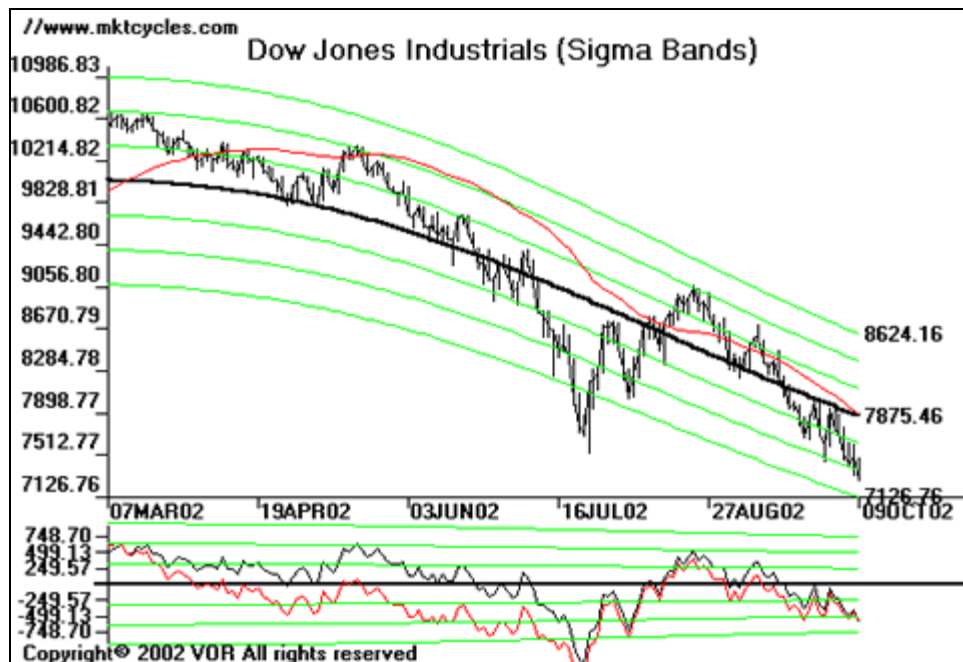


Chart 15

On October 9, 2002 the Dow was actually testing the old low made earlier in July when it bounced off minus four Sigma. The second drop was at minus two Sigma, a very good sign indeed. However, momentum inversion was NOT occurring (although the red and black momentum lines were converging). Should you have bought? The answer is "yes!" Why? Because even though the prices were making new lows the red momentum line was not confirming the price decline. In other words the prices were dropping at slower a rate. With prices at minus two Sigma the likelihood of continuing to drop were decreasing. Time to buy!!

It goes without saying that the reverse situation holds. If the prices are rising to plus two Sigma levels and the momentum is not confirming, then look out! The plus two Sigma level is probably a very good level to consider taking a short position.

How do I spot probable sideways movement?

Sideways movement is the curse of trading. Buy low, sell high is the rule and when the range between the high and low is small there's very little if any money to be made. So how does one spot sideways movement? Take a look at the chart below.

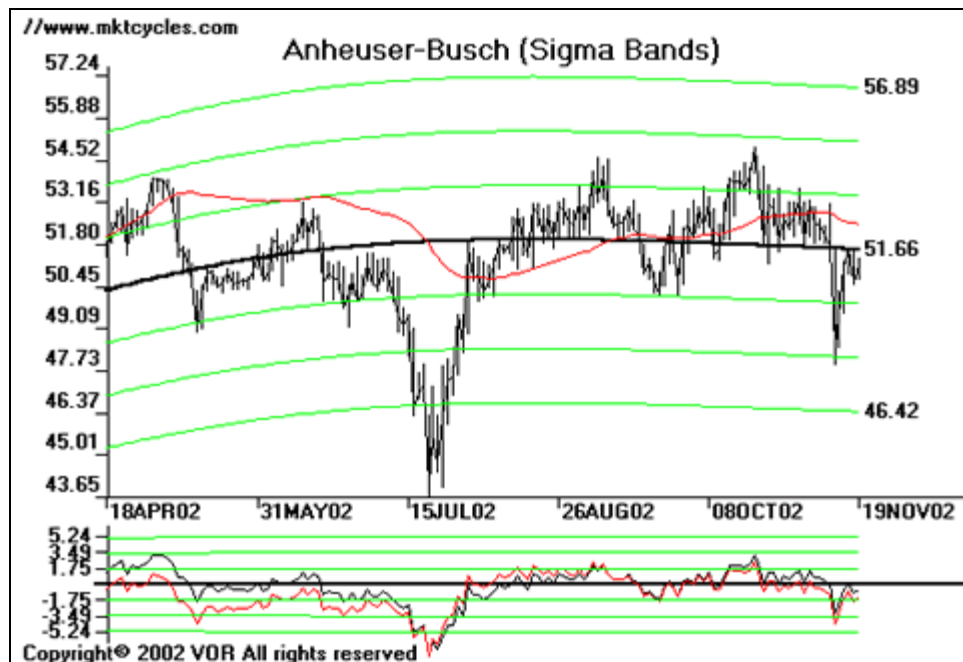


Chart 16

Examine the period between the end of July, 2002 and the beginning of November, 2002. There are three observations to be made. First, the price rarely got beyond minus one Sigma and plus one Sigma, a variation of only three and half points. There's no big money to be made here. Second, notice that the Sigma Bands™ are moving sideways. In other words there's no real trend. Finally, observe the red and black momentum lines. **They're practically on top of each other!!** When the red and black momentum lines are on top of each other the cycles have dissipated their energy and the prices will follow the trend. There will be very little price deviation from the trend line, so the prices will remain with plus/minus one Sigma. The trend will dominate!! So if the trend is sideways and there's no price variation, you have sideways movement!

In summary, always look for the situation where the red and black momentum lines start to fall on top of each other. In such a case, unless the trend is in a strong direction, its best to stay out. A trendless, low variation market is a waste of time.

When do I go long?

It is important to realize that one must wait for buying or shorting opportunities. One cannot always be in the market. You must wait for the right time!!! With that in mind here are the rules for taking a long position. See the charts below for an illustration of the points.

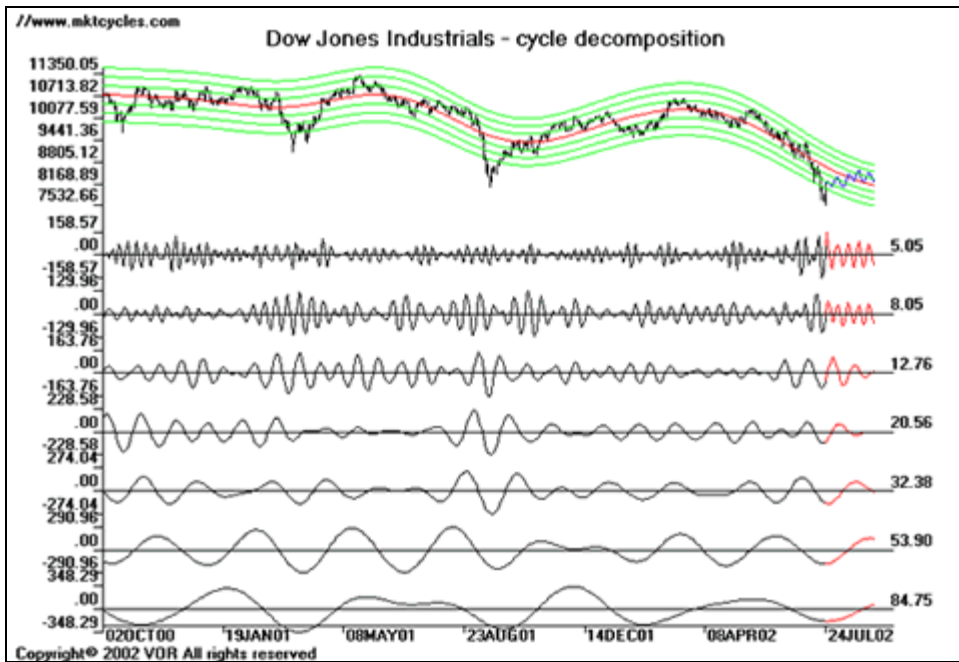


Chart 17



Chart 18

1. Use the cycle decomposition chart to verify that the price is at a bottom and moving up, or, that the forecasted bands are at least bottoming out and preparing to move up. On the cycle decomposition chart for the Dow the projected bands are bottoming

out. Even though they're still moving down, the rate of decent is slowing down. The projected future is UP

2. On the Sigma Bands™ chart verify that the prices are at least down to the minus two Sigma level. For our sample chart the Dow is actually at minus 4 Sigma!
3. If the prices are well below minus three Sigma one need not consider anything more. You're looking at a blowout and extreme conditions like this are the best of times. Go long! However, if the prices are only around the minus two Sigma then some momentum analysis needs to be taken into consideration.
4. Momentum analysis takes one of two forms. Verify that either the red momentum line has crossed above (or is at least converging to) the black momentum line, or, the red momentum line is not confirming the price decline. If either one of these conditions is taking place then the long position is a low risk long. If the price is around the minus three sigma level the risk is even less than minus two Sigma.

When the above conditions are right use the signal band chart to prepare for a buy entry point.

When do I go Short?

1. Use the cycle decomposition chart to verify that the price is at a top and moving down or that the forecast bands are at least topping out and preparing to move down.
2. On the Sigma Bands™ chart verify that the prices are at least up to the plus two Sigma level.
3. If the prices are well above plus three Sigma one need not consider anything more. You're looking at a blowout and extreme conditions. However, if the prices are only around the plus two Sigma then some momentum analysis needs to be taken into consideration.
4. Momentum analysis takes one of two forms. Verify that either the red momentum line has crossed below (or is at least converging to) the black momentum line or the red momentum line is not confirming the price increase. If either one of these conditions is taking place then the short position is a low risk trade. If the price is around the plus three Sigma level the risk is even less than plus two Sigma.
5. When the above conditions are right use the signal band chart to prepare for a short entry point.

When do I exit a Position?

It is always difficult to decide when to take profits, but the Sigma Bands™ charts can help in making a decision. The first thing is to set an initial target for taking profits. Take a look at the two charts below.

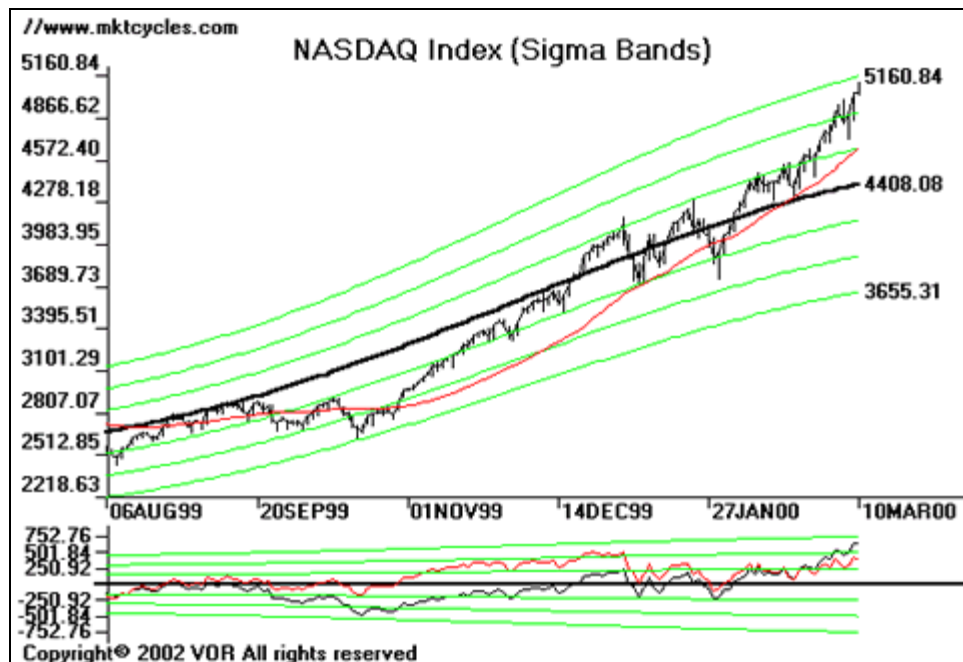


Chart 19

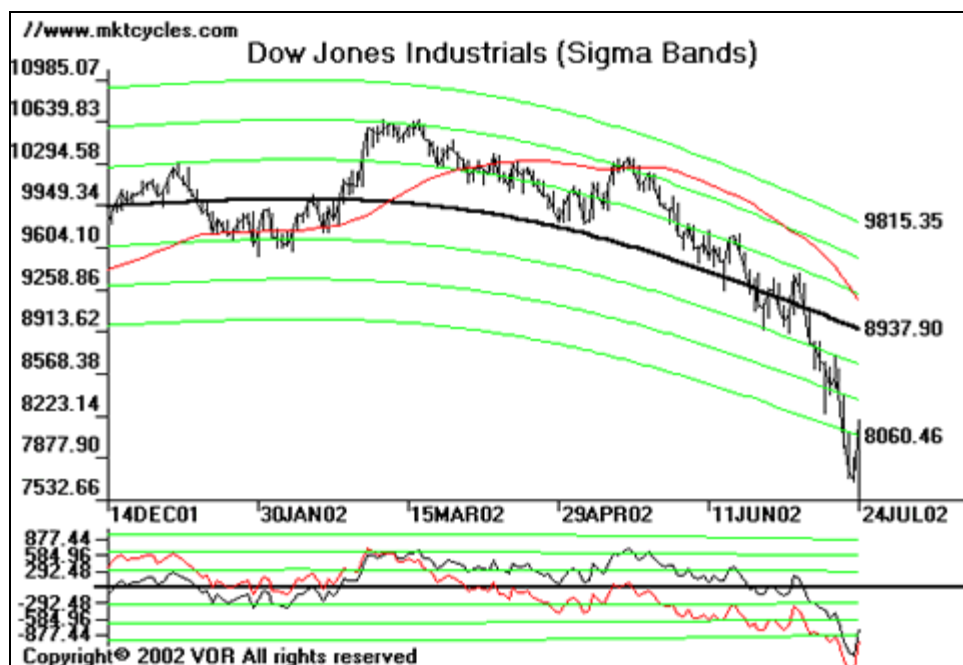


Chart 20

The basic rule for setting the initial target for taking profits is this: The initial price target for taking profits is **the zero Sigma value at the time the position is taken!!** For the NASDAQ one can expect the price to drop back to 4408; for the Dow, look for a rise to the 8937 level.

These are the initial target levels!!! It is important to reassess your position daily. If the momentum is going your way, stay with the position. However, once the price approach the initial target its important to watch momentum. If it appears that momentum is strong and increasing then you may decide to stay with the position in hopes of a rise to plus one Sigma or better. **You have no guarantee that this will occur!** It is reasonable to assume the prices will go back to the

zero Sigma level because prices "gravitate" to nominal prices. However, prices tend to **stay** nominal. So unless the momentum is going your way, in a big way, take your profits!

When do I Stay out of Market?

The rule for staying out of a market is simple: **Stay out if the conditions for going in do not apply!!!** In other words, if there is no long or short opportunity, then stay out. Always wait for the opportunities. Don't chase a market. Don't try to predict a market. Just wait for the price extremes and then ride the price back to the zero Sigma line, and take your profits.

Some Closing Thoughts.

1. **Always look for confirmation between the four different types of charts!** Each chart is generated using a different methodology, and consequently will give different assessments of future price action. Look for when they are in agreement.
2. **Always take an intramarket point of view.** No market stands on its own. The stock market, for example, is affected by the bond market, the dollar, and crude oil prices, just to name a few. The bond market can be affected by the Euro Currency. The Euro can be affected by crude oil prices. **Always study all charts related to the market you're interested in!**

Important Disclaimer

In the world of Technical Analysis software developers speak of "buy" and "sell" signals. This is simply terminology that has been adopted to denote signals associated with price crossover points. These buy or sell signals are not actual recommendations to buy or sell. They are simply crossover points and it is up to the individual traders to decide for themselves whether to act on these signals. Use the signals at your own risk!