

## PRICE RELATIVE (RELATIVE STRENGTH)

An important insight into how an asset market or stock is performing can be gained by looking at its performance relative to some other indicator. For example, it is useful to consider how the Dow-Jones Industrial Average is performing relative to a larger stock index such as the S&P 500. Or, insights into possible future upside momentum for the overall stock market can be seen by evaluating whether the Dow-Jones Industrial Average is underperforming the NASDAQ (markets tend to do better when the NASDAQ outperforms the Dow-Jones).

The basis for this determination is simply the ratio of the two indexes, which is called a **price relative** (PR):

$$PR = A/B$$

where A is the first index considered and B is index one wishes to compare A to. For example, to derive the price relative for the Dow-Jones Industrial Average comparing it to the S&P 500, we use:

$$PR = \$INDU/\$SPX$$

using the symbols from Stockcharts.com for both indexes. Another way to look at this is the relative strength of whatever index is used in the numerator (NOTE: DO NOT CONFUSE THIS WITH THE RELATIVE STRENGTH INDICATOR (RSI)).

In Stockcharts.com, a graph of this can be obtained by choosing **PRICE RELATIVE** as one of the rows under **INDICATOR WINDOWS**. YOU choose what the comparison index is (the default is \$SPX). This will give a graph under the main graph with the price relative chosen. You can also obtain this as the primary graph. In the space for Ticker Symbol you would enter **\$INDU:\$SPX**. Note that the colon separating the two indexes is the equivalent of division in Stockchart.com's system.

If the price relative is rising, whatever index is selected in the numerator is *outperforming* (i.e., rising relative to) the index in the denominator. Using A and B for the numerator and denominator, respectively, PR will rise if:

- 1) A rises, given B
- 2) B falls, given A, or
- 3) A rises by proportionately more than B when both are rising

*Key insights into possible turning points or changes in trends can be obtained by determining when one market (or sector) begins to first outperform another relevant comparison market or the overall market.*

## APPLICATION: ARE BIOTECHNOLOGY STOCKS POISED FOR A BREAKOUT?

The chart below shows the AMEX Biotechnology Index for the second half of 2004. Note how the Price Relative was declining from mid-September through the end of 2004, indicating that the Biotech sector was underperforming the overall market during that time.

In the very beginning of 2005, the Price Relative line turned up, indicating that this sector was beginning to outperform the overall market.



What other technical information could help us determine whether this potential breakout would persist? The next graph adds a few other indicators and trend information to this graph.

Here is a more detailed graph. YOU judge whether there is a basis to conclude that the breakout would persist. Add relevant trendlines, etc.



## POSSIBLE CONSIDERATIONS

- 1) \$BTK was in an ascending triangle
- 2) It had recently held support
- 3) The 50-day MA had remained above the 200-day MA since November
- 4) On the day of the potential breakout, it remained above its 50-day MA for the second consecutive day, and closed near the high of that day
- 5) The RSI moved above 50 from below (a bullish signal)



Still, it is not at all certain that this breakout would persist. A suggested action is to examine the charts for weekly and monthly data and try to gather information similar to the above from them.

## APPLICATION: USING THE PRICE RELATIVE AS MAIN CHART WILL THE STOCK MARKET BE TAKING A PAUSE SOON?

In Stockcharts.com, to have the main graph as a price relative, enter the names of the two indexes separated by a colon. Also, I suggest using a line graph.

To plot the Dow-Jones Industrial Average relative to the NASDAQ, use the entry: **\$INDU:\$COMPQ** . (note: moving averages were omitted to make the graph easier to annotate)



Since February of 2004, there was support for the Dow-Jones being a multiple of 4.9 times the NASDAQ. In mid-December, the price relative bounced off support of 4.9 and began an upward trend, indicating that the Dow-Jones was beginning to outperform the NASDAQ (a negative sign for longevity of this up-leg in the market). Note that the Dow-Jones also began to outperform the S&P 500 as well (see bottom graph). Finally, while the RSI (top graph) was trending upward, indicating upward momentum, it had not yet reached an overbought reading of 70.