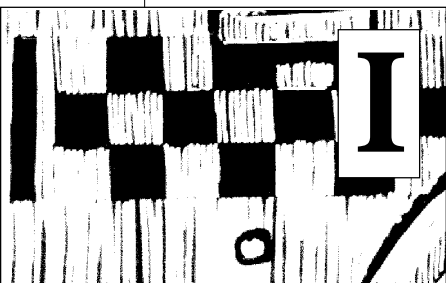


# Price Patterns, Part I

*This veteran market analyst takes a look at the principles of price formation, one of the basics of technical analysis.*

*by Martin J. Pring*



In my recent articles, I have covered many basics of technical analysis, ranging from peak and trough analysis all the way to moving averages. What I haven't covered is one of the most widely used concepts of technical analysis: price patterns. This time, I'll take a look

at the principles of price formations, together with some of the most common varieties. Next time, I'll examine one- and two-day patterns, because they can be extremely useful for short-term traders.

In most charts, you'll find that prices rarely reverse on a dime; rather, they experience clearly definable trading ranges prior to experiencing a trend reversal. Figure 1 shows such an example. In the left-hand part of the chart, the price rallies and then loses upside momentum as a battle between buyers and sellers gets under way.

Often, it is possible to construct two horizontal trendlines to mark the top and bottom of the range. Every time the price rallies to the upper line, buyers are scared off by the higher price and selling pressure increases. Then, as it falls to the lower line, buyers are attracted, but sellers, who naturally want a higher price for their goods, withdraw their offerings, so the price bounces again. Eventually, sellers win this battle as the price slips decisively below the lower end of the range. The charting activity that separates the uptrend from the downtrend can be contained by two parallel trendlines known as a *rectangle*.

## DISCERNING BETWEEN REVERSAL AND CONTINUATION PATTERNS

Price patterns come in two forms, *reversal* and *continuation*. In Figure 1, we see a reversal from an uptrend to a downtrend. Conversely, we could have had a reversal from a downtrend to an uptrend.

Figure 2 features a *continuation* or *consolidation* pattern. It shows the rectangle as a temporary halt in an ongoing uptrend. As the pattern is being formed, there is no way of knowing which direction the breakout will materialize, based on the price action contained within the formation itself. Other indicators such as oscillators could provide vital clues, but the normal technical principle is to assume that the

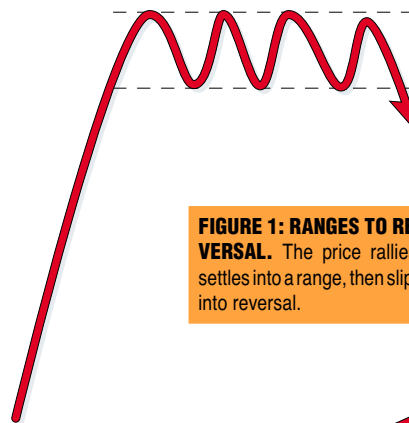
previous trend is in force until proven otherwise. A trend is a trend, after all. This means that when we have determined that a rectangle is being formed, we should assume that it is a continuation, rather than a reversal rectangle, until the charts indicate otherwise.

## PRINCIPLES OF INTERPRETATION

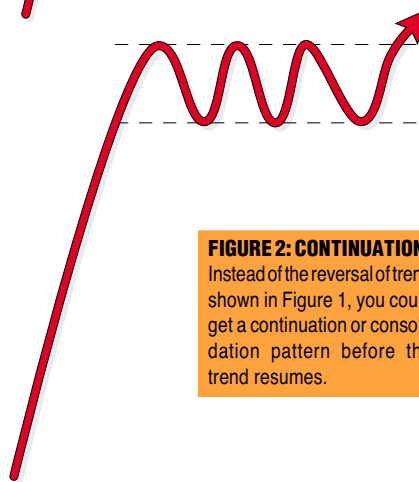
Before we consider other varieties of price patterns, examine some of the interpretive principles that apply to them all:

- *The significance of an individual pattern.* The importance of a particular formation is very much a function of its size and depth. For example, when the captain of a giant oil tanker decides to reverse course, the new course will likely last a lot longer than a driver of an automobile doing the same thing. The same is true of markets.

The longer the pattern takes to form, the longer the new trend is likely to last. Remember, the trading range, reflected by the price pattern, is really a battleground between buyers



**FIGURE 1: RANGES TO REVERSAL.** The price rallies, settles into a range, then slips into reversal.



**FIGURE 2: CONTINUATION.** Instead of the reversal of trend shown in Figure 1, you could get a continuation or consolidation pattern before the trend resumes.

and sellers. The longer these skirmishes take to play out, the more decisive the victory is when it comes.

For example, Figure 3 shows an intraday trading range for Chase Manhattan on April 18. The price does whip through the two trendlines a little, but the formation definitely has the feeling of a rectangle. This pattern, though, only takes a matter of hours to form. The ensuing decline takes about the same time.

Figure 4 shows the same period, this time using daily data. Note the rectangle is not even apparent on this chart. The point here is to show how shorter-term charts — in this example, an intraday variety — can be used in conjunction with longer-term time frames to better time entry and exit points.

Figure 5 shows a much longer pattern, using a rectangle that took about a year to form. Note the far longer and stronger price movement that followed compared with that in Figure 4.

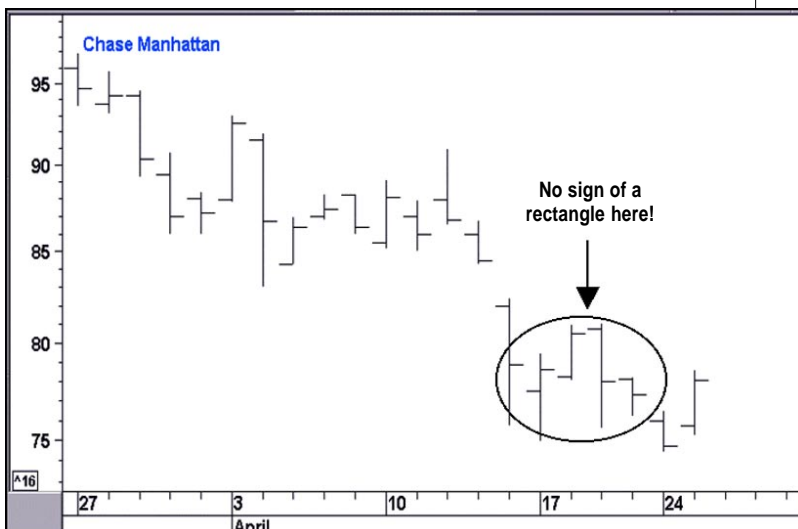
The second factor that determines the significance of a pattern is its *depth*, or the distance between the top and the bottom of the formation. This can better be appreciated when we consider a pattern's measuring objective, our second interpretive principle.

- *Measuring objectives.* The measuring objective of a price pattern is determined by taking the dimensions of the vertical distance between the top and bottom of the pattern, and projecting that distance from the breakout point (Figure 6). If the breakout is on the downside, then the objective of the pattern is determined on the downside and vice versa.

For longer-term charts, the choice of scale on the vertical, or y-axis, becomes very important. An arithmetic scale reflects the same dollar amount for each identical vertical distance. For instance, each inch might represent \$10. A logarithmic scale, on the other hand, represents the same *proportionate* distance. In this example, one inch would represent a 10% price



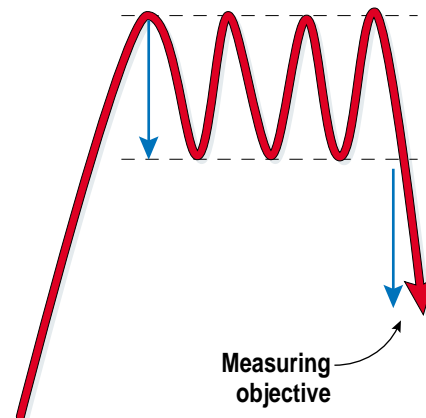
**FIGURE 3: CHASE MANHATTAN, INTRADAY.** Intraday trading in Chase forms a consolidation before reversing trend. The size and duration of the consolidation provides a clue to the size of the next price move.



**FIGURE 4: CHASE MANHATTAN, DAILY.** A daily chart for the same period as seen in Figure 3 doesn't show the same rectangle seen intraday.



**FIGURE 5: ALLSTATE.** Here, the consolidation in Allstate took nearly a year to form, suggesting a move of similar length once the breakout came.



**FIGURE 6: MEASURING OBJECTIVE.** The depth of a consolidation — the difference between its top and bottom — suggests the size of the next subsequent move.

move wherever it appeared on the chart.

If you look at Figures 7 and 8, you can see a measuring objective example for two rectangles, both formed between the \$4 to \$10 range. The downside objective in Figure 7 is clearly an absur-

**Price patterns fall into two categories: reversal and continuation. The significance of formations is a function of their size and depth.**

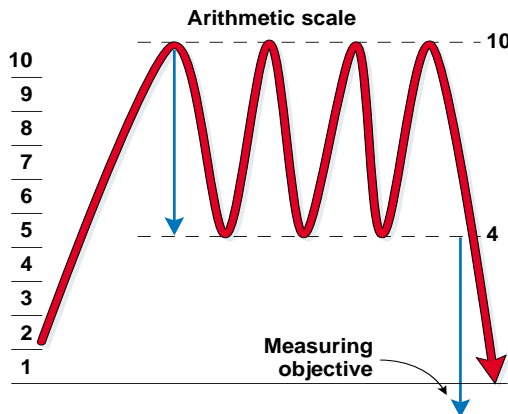
dity, because it projects the price into negative territory. The measuring objective for the log scale is far more realistic, since the projection is based on a proportionate swing. The difference between arithmetic scale and log scale is not significant on very short-term charts, but I strongly recommend using a log scale on longer-term charts so the type of distortion shown in Figure 7 can be avoided.

- *Volume considerations.* So far, we have only taken price action into consideration. However, volume patterns are also important. As a rule, volume is at its highest during the formation of the left-hand part of the pattern and at its lowest at the right hand. This does not mean that every successive session in a daily chart is associated with lower and lower volume. Here, we are concerned with the overall trend, as shown in Figure 9.

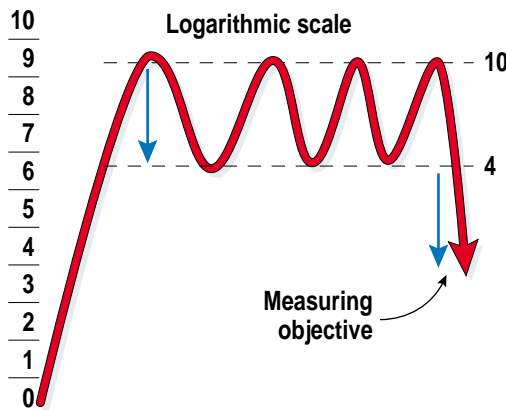
Remember that buyers and sellers are locked in a battle during the formation of the pattern. By the time the pattern is ready to be completed, the balance between supply and demand is pretty even, so it becomes easier for one side or the other to gain the upper hand. Every transaction has a buyer and seller, so supply and demand and the clearing price are always even. It is the *relative* enthusiasm of buyers and sellers that determine prices.

Volume patterns become crucial on upside breakouts because volume normally goes with the trend. An upside breakout not accompanied by expanding activity is suspect because it does not have the buying power to support a sustainable trend. In Figure 9, the volume trend starts to rise as the price begins its breakout rally. The actual level of volume is not spectacular, but a definite change in the previous declining trend is apparent.

Downside breakouts are another matter altogether, since prices can easily collapse with a lack of bids. Volume can be light or heavy on a downside breakout; light volume is normal because volume goes with the trend. If prices are falling, it is likely that volume will also be contracting.



**FIGURE 7: WHOOPS!** Here, a measuring objective goes below zero using an arithmetic scale. This is a case where you would use a proportionate or log scale to determine your objective.



**FIGURE 8: MUCH BETTER.** Here, the problem seen in Figure 7 using an arithmetic scale is corrected by using a log scale to determine objective.



**FIGURE 9: VOLUME.** Typically, as consolidation forms, volume declines. Buyers and sellers have reached a balance during the pattern. Therefore, volume usually rises on breakout.



RICHARD JOHNSON

Since expanding volume and falling prices reflect urgent selling, this means that a downside breakout is also imminent.

#### WHAT CONSTITUTES A BREAKOUT?

Looking at some of these chart examples makes it clear that the price occasionally moves outside the pattern, above and below. In that case, how do we determine what constitutes a valid breakout? In previous years, when investors held a position for weeks or months, it was commonly accepted that

a move that took the price 3% from the outer reaches of the pattern was a valid breakout. In today's fast-moving intraday charts, such a rule no longer holds. Unfortunately, there really are no hard and fast rules, because the conclusion about the validity of a breakout can only come with experience and the judgment derived from that experience. A marginal breakout, where the price barely nudges through the breakout point, must be made to prove itself. Some traders require the price to close for two consecutive sessions above or below the

pattern (in the case of intraday charts, this would translate to two five-minute or 30-minute bars, and so forth).

Certainly, if the price broke out and failed to hold outside the pattern, some doubt about its validity would creep in. Under such circumstances, it is mandatory to have an escape route mapped out. After all, if the price were back within the body of the pattern, would it be feasible to continue to treat it as if it were still outside?

One method of dealing with whipsaw breakouts is to place a stop below the previous minor low prior to the whipsaw rally (Figure 10). If that proves to be too great a risk, then some traders use the 50% rule. For a short sale following the upside breakout in Figure 11, the position would be covered in the event that the price crosses below the halfway mark of the pattern.

**BE PREPARED FOR A RETRACEMENT MOVE**

Most traders buy on an upside breakout, expecting the price objective to be quickly met. However, in many instances, the price experiences a retracement move, offering a second chance to buy under quieter, more controlled conditions than those associated with the breakout. It is often possible to construct a small downtrend line joining the minor retracement peaks. When the line is violated, such as point X in Figure 12, a buy signal is triggered. Retracements also develop after downside breakouts.

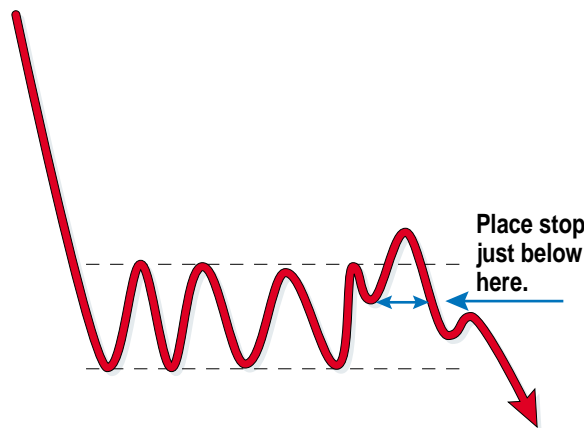
**SUMMARY**

Rising and falling trends are usually separated by a trading range where the balance between buyers and sellers is fairly evenly matched. Technicians recognize that these trading ranges take the form of clearly identifiable price formations. Price patterns fall into two categories: reversal and continuation. The significance of formations is a function of their size and depth.

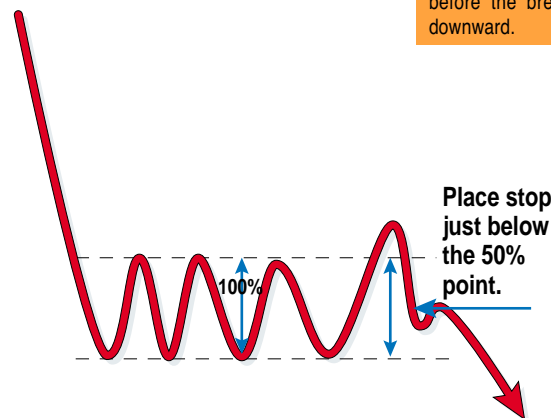
*Martin J. Pring founded the International Institute for Economic Research in 1981. He is the author of several books, including the classic Technical Analysis Explained, and Introduction To Technical Analysis, the first technical analysis multimedia CD-ROM. He pioneered the introduction of videos as an educational tool for technical analysis in 1987, and was the first to introduce educational interactive CDs in this field.*

**SUGGESTED READING**

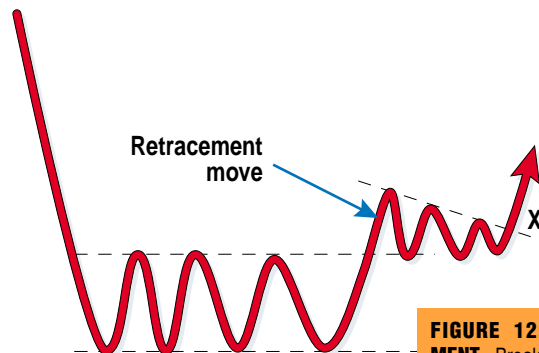
International Institute for Economic Research, [http:// www.pring.com](http://www.pring.com).  
 Pring, Martin J. [2000]. *Breaking The Black Box, A CD-ROM Tutorial*, International Institute For Economic Research.  
 \_\_\_\_ [1998]. *Introduction To Technical Analysis*, McGraw-Hill Book Co.  
 \_\_\_\_ [1985]. *Technical Analysis Explained*, McGraw-Hill Book Co.



**FIGURE 10: LOSS PROTECTION.** A false breakout shouldn't be ridden long. Place a stop just below the minor low/high immediately before the break upward/downward.



**FIGURE 11: ANOTHER STOP RULE.** If a breakout retraces 50% of the consolidation's depth, it's time to get out.



**FIGURE 12: RETRACEMENT.** Breakouts are often followed by some retracement. Occasionally, the retracements allow the creation of a trendline, breaking out of which signals another entry point.