Support And Resistance

Support and resistance are basic tools used by traders to identify key reversal areas. Here's a look at the basics of support and resistance levels and how to determine which levels might be important in the future.

by Stuart Evens

O ne premise of technical analysis is that stock prices are affected by support and resistance. As those terms imply, support acts to keep a stock's price above a certain level, while resistance acts to keep a stock's price below a certain level. In fact, once it has been determined that a price has acted as important support or resistance in the past, it is very likely that a particular price will do so again in the future. Drawing support and resistance lines on stock charts helps determine how significant they were in the past and how significant they might be again. If we find a stock trading toward one of these price levels, we can make some reasonable predictions as to how the stock price might respond. We can then make trading decisions based on this anticipated price action.

What *are* support and resistance, and why do they occur at definite price levels? What do they look like on price charts? To help answer these questions, we will take a look at the charts of stocks with clearly identifiable support and resistance levels and draw the lines on the charts. Using the information we glean from doing so, we can estimate the probability of these levels acting again as support or resistance when prices approach these levels.

But first, let us define some of these terms and look at what causes the formation of support and resistance.

DEFINITIONS

Anyone who has watched financial news programs on television has probably heard technicians make such comments as "I see support for the Dow at 7300" or "The Dow should experience some resistance at about 8100." So what do these financial pundits mean by support and resistance?

Robert Edwards and John Magee, in their classic work *Technical Analysis Of Stock Trends,* define *support* as buying, either actual or potential, in sufficient volume to prevent

FIGURE 1: RUBBERMAID. Here, we see the 27$\frac{1}{2}$ price level first acting as resistance (points A, B, and C), and then acting as support (D, E, and F).

any further downward movement in prices for an appreciable period. *Resistance* is the opposite of support; it is selling, either actual or potential, in sufficient volume to satisfy all bids, thereby preventing prices from going any higher for a while. These definitions are quite similar but not identical to the terms *demand* and *supply*, respectively.

The term *support level* refers to the price at which buyers are willing to step in and buy enough shares of stock to temporarily stop or possibly reverse a downtrend. Conversely, a *resistance level* is the price at which sellers are willing to sell enough shares of stock to temporarily stop and possibly reverse an uptrend. In terms of supply and demand, support is the price level at which the demand for the stock exceeds its supply, and resistance is the price level at which the supply of stock exceeds its demand. An example can be seen in Figure 1.

Figure 1 is a daily chart of Rubbermaid [RBD] from June

FIGURE 2: OUTBACK STEAKHOUSE. The 34$\frac{1}{2}$ price level acts as a very strong level of support in this stock, as prices are prevented five times from breaking that level (A-E).

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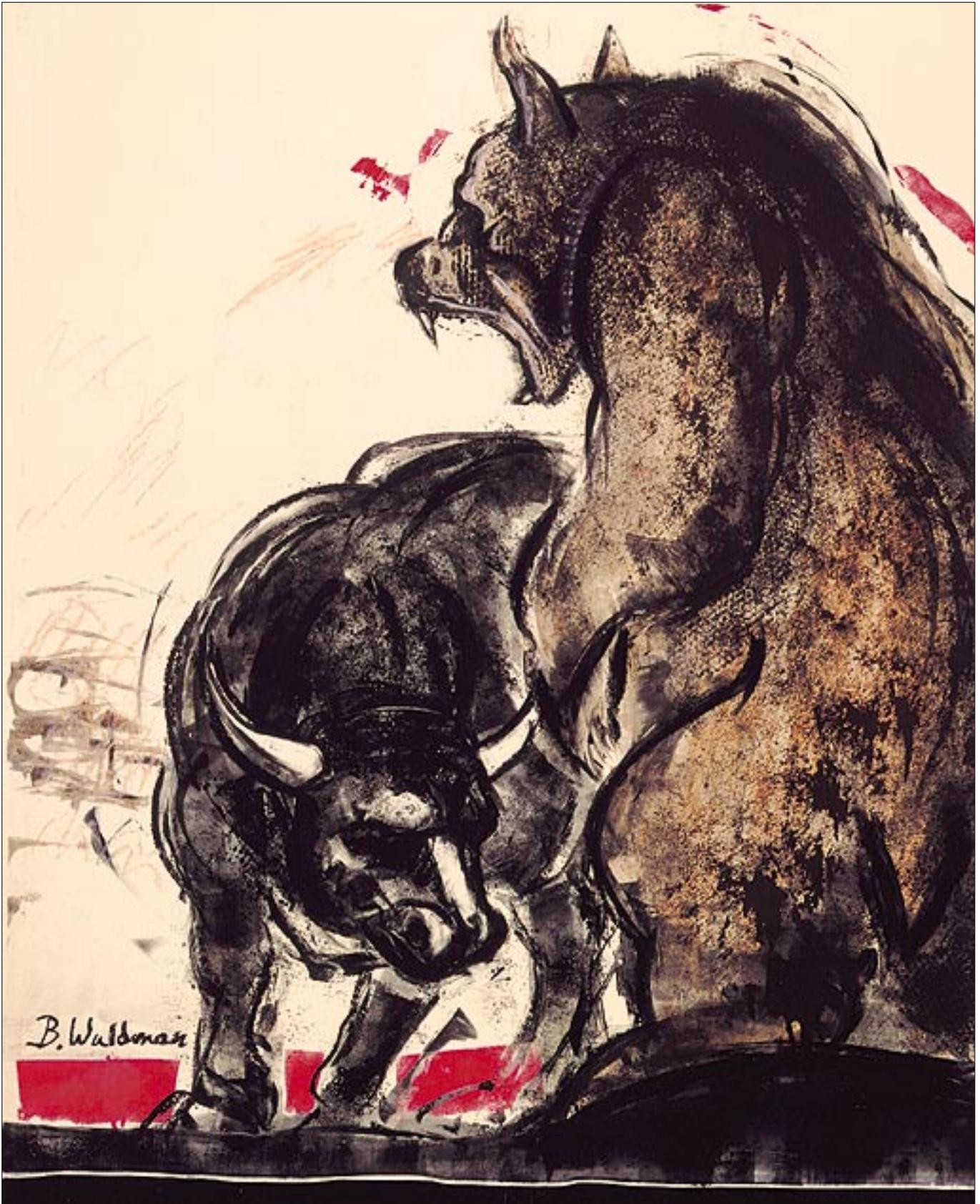
1997 to September 1998. The chart shows three times (points A, B, and C) that prices trade up to about $27\frac{1}{2}$ and then reverse and fall back. Then, once prices finally break through the $27\frac{1}{2}$ level, as happened in February 1998, prices trade down to the same level (D, E, and F) before resuming the rally, up to about 35. A line is drawn to be as close to all six of these points as possible to indicate this level's significance. Here, we see a price level acting first as resistance at A-C, and then reversing roles and acting as support at D-E; this is actually a commonplace occurrence.

EXPLANATION

To explain this behavior, let's take a closer look at Figure 1. Starting in mid-July 1997, after falling from about 30, the stock rallies to about $27\frac{1}{2}$ in August, pulls back, rallies again to about $27\frac{1}{4}$, and pulls back again. This occurs one more

time in January 1998 before finally pushing through the $27^1/_2$ level in February to about the $29^1/_2$ level.

Now suppose prior to the mid-July 1997 downmove, investors who had bought stock at levels below 30 took profit and sold to new investors at about 30. Many of these new owners will be quite perturbed to see a loss of about 15% of their investment virtually overnight, and look for a rally in prices to get out with only a moderate loss.

On the other hand, investors who missed the prior rally might view this as an excellent buying opportunity, as the stock was at 30 just two days ago; so the price rebounds as people buy the dip. As the price once again approaches the $27^1/_2$ level (point A), the owners of the stock at 30 have reduced their loss by $2^1/_2$ points and many place sell orders, driving the price down again. This process is repeated (B and C) until no significant numbers of sellers are left at this level, and the stock finally breaks through the $27^1/_2$ level in February 1998 after a three-day pause.

At this point, there are probably still some buyers of the stock at 30 unwilling to take a $2^1/_2$-point loss and, as the stock rallies to about $29^1/_2$, are feeling good about their decision to hold on. As the price weakens, some of these market participants get nervous and call their brokers with sell orders, driving the stock down to just above the $27^1/_2$ level (point D). This happens a couple of more times (E and F) until all the alarmed buyers willing to take a small loss are out, and the price moves up through the 30 price level in May 1998.

This same process occurs not only at these prices but also at each price at which the stock trades, and — even though this is an oversimplification — it is this type of investor decision-making that helps establish significant support and resistance levels. Some overriding factor could influence the stock's price action, but in the absence of stronger factors, these levels can have a pronounced effect on the appearance of the stock's daily chart. More important, by combining our knowledge of past support and resistance levels with other technical analysis and fundamental tools, we can be better prepared to take advantage of price movement if we anticipate that movement, rather than be taken by surprise.

ANOTHER EXAMPLE

Figure 2, which shows the daily chart of Outback Steakhouse [OSSI], is another good example of a price level acting first as support and later as resistance. From the beginning of 1998, the price of this stock moves from about $28^1/_2$ up to $34^1/_2$ by mid-February (point A). Take note of the small congestion area sitting just above the support line drawn at the $34^1/_2$ level, and the fluctuation of prices over the next few months as prices rise and fall and test the $34^1/_2$ support line at B, C, D, and E. From E through

FIGURE 3: OUTBACK STEAKHOUSE. A trendline drawn from the lowest low (point G) to the minor low (E) preceding the highest high (F) shows this diagonal line exhibiting support until the trend is broken at H, and support is broken at I.

most of July, prices rise to a high of about the 41 level (F), and then fall quite rapidly to below the $34^1/_2$ support line by the first part of August, closing at a price of about $32^1/_2$.

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As point F is the highest high in our period being considered (Figure 3), let us draw a trendline from point G to E and extend the line to the right. Note that the close (H) prior to the one-day fall from 36 to a close of $32^1/_2$ (I) rests right on the trendline. The next day, the relatively big drop gives the

FIGURE 4: OUTBACK STEAKHOUSE. Testing of the $34^1/_2$ price level after July (I) is done from the opposite direction than at points A-E and is now acting as resistance to upward price moves.

impression that the trendline acted as support, and once through this barrier, prices fall quite freely. This illustrates that support and resistance do not have to be horizontal but can run diagonally, and in fact, trendlines themselves can be thought of as support (uptrends) or resistance (downtrends). In addition, chart patterns such as triangles, pennants, and so forth, which we will discuss in another article, are formed by diagonal support lines.

Remember we spoke earlier of testing support at points A-E? Now that prices have fallen below this level, we can say the stock has broken support at $34^1/_2$ in addition to breaking the trendline drawn through G and E (Figure 4). Prices spend most of the month of August testing the same level ($34^1/_2$), except this time from the other direction. The line, no longer acting as support, has reversed its role and is now acting as resistance until prices move lower. By September, prices trade at about 26.

The measure of significance and future reliability of lines in technical analysis is directly related to the number of times that prices touch that line and then reverse. If we count the times this has happened to our support/resistance line in Figure 4, we come up with at least seven. This relatively large number of reversals indicates that the line is *very* significant and could be reliable in predicting future reversals. Will it be 100% reliable? No, but the next time prices approach $34^1/_2$, there appears to be a better chance than not that a reversal could occur.

Let's take one more look at the chart of Outback Steakhouse (Figure 5), and consider the breaking of the trendline (point H) to close at $32^1/_2$ (I). Since prices seem not to be following our uptrend, we would like to have another trendline to give the general direction of prices. A line drawn from points F through J and extended down to the right is our new downtrend line. A line drawn through H, parallel to the new trendline, seems to encapsulate well the price action from July through September. Prices seem to flow along, bumping into the walls of the channel formed by these two parallel lines, which is another example of diagonal support and resistance.

CONCLUSIONS

So what good *are* all these lines that we have drawn on our charts? One way to help answer this question is to acknowledge what they will *not* do. Support and resistance lines are not 100% accurate predictors of when and where prices will rebound. These lines are tools that can be used to alert the trader to areas that need a closer examination. By using these and other indicators, we can decide what, if any, impact they

FIGURE 5: OUTBACK STEAKHOUSE. The new downtrend line is drawn from points F through J, since prices have broken the uptrend line. A line parallel to the new trendline is drawn through I.

will have on prices. Depending upon the number of reversals associated with a particular support or resistance level, more or less confidence can be placed in their importance.

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RELATED READING

Edwards, Robert D., and John Magee [1997]. *Technical Analysis Of Stock Trends*, 7th ed., AMACOM.

Murphy, John J. [1986]. *Technical Analysis Of The Futures Market,* New York Institute of Finance.

†See Traders' Glossary for definition   S&C