Support & Resistance Levels

In the last “Technically Speaking” column, we discussed trendlines and how you may be able to use them to make sure you are trading with the trend instead of against it (the column appeared in the Third Quarter 2009 issue and is available on-line at www.computerizedinvesting.com).

Eventually, however, all trends come to an end. When looking at a chart, you may sometimes see where rising prices reach a point they cannot break through. Likewise, there are often times when falling prices keep bouncing off some unseen floor. These areas are typically referred to as resistance and support levels, respectively. In this column, we discuss the principles of support and resistance and how you may be able to use them to your advantage.

The Basics

Technical analysis is the study of the price and volume of a security. Both are driven by the “struggle” between buyers and sellers. Using the terms of basic economics, buyers represent demand and sellers represent supply. In other words, supply is synonymous with bearishness, bears, and selling—bears sell if they believe prices have peaked. Demand is synonymous with bullishness, bulls, and buying—bulls will buy if they think prices are too low.

As prices fall, bears are in control as supply is stronger than demand. Eventually, the price becomes attractive (low) enough to encourage bulls to buy in—and causing bears to be less inclined to sell—tipping the scales and creating enough demand to keep the price from falling any further. At this support level, it is believed that demand now outweighs supply, thereby preventing the price from falling below the support level.

Figure 1 is a weekly price chart for GameStop (GME) from StockCharts.com (www.stockcharts.com). The chart has a logarithmic price scaling, meaning that the spaces between equal percent price changes are represented by the same vertical distance on the scale. The distance between the numbers on the scale decreases as the price of the stock increases. This means the vertical distance between $1 and $2 is the same as the distance between $100 and $200, since both represent a 100% increase in price. The chart covers the period from 2003 to the present. Over this time, the trading behavior of the stock created a variety of support and resistance levels that illustrate the points we are discussing here.

Figure 1. Support and Resistance Levels for GameStop
Support

Figure 1 shows multiple support levels for GME. The first was around $7.35, which was tested on two occasions. Just like with trendlines, support and resistance levels become more significant the more times they are tested and hold. The second support level was around $15.50, which was tested three times between August and December of 2005.

It is important to stress that support and resistance levels are not an exact science. Rarely will you see prices rise to the exact same level only to retreat, nor will prices also fall to the same point only to rebound. But by studying price movements, you can begin to develop a sense of where these “zones” develop over time.

Very rarely does a “sure thing” exist in trading or investing, so support levels are not set in stone. Therefore, there are times when support deteriorates—signaling that the bears have overpowered the bulls as sellers are willing to sell at even lower prices. Furthermore, buyers may signal that they will only be enticed to buy at prices below support. Once support is broken, a new level will be established at a lower low.

Resistance

On the opposite side of the coin, resistance is the price level where it is believed selling pressure is strong enough to prevent the price from going up any further. As the price nears resistance, sellers become more inclined to sell and buyers become less inclined to buy. At the resistance level, supply overcomes demand and the price is unable to rise above resistance.

Figure 1 also illustrates two well-defined resistance levels for GME. The first, which was tested several times between September 2003 and April 2004, is around the $9 level. The second resistance level developed between July and November 2005 at roughly the $18 level.

Resistance levels do not always hold either. Sometimes, the bulls win over the bears, propelling prices above the resistance level and creating what is called a “breakout.” This signals a renewed willingness to buy or a lack of willingness to sell.

The $18 resistance level was broken convincingly on January 5, 2006, when GameStop shares gapped from the previous day’s close of $16.72 to open at $18.70. Eventually, GME would close the day at $18.65 after trading four times the average volume of the previous 20 trading days.

When breakouts or breakdowns do take place, it is important to take note of the strength of the move, which is reflected in the trading volume when the move takes place. If prices move up through resistance or down through support on an increase in volume, there is a greater chance that the old support level will become resistance, or vice versa.

Establishing Support & Resistance Levels

Highs and Lows

Support levels can be formed using “reaction lows,” which are intermittent troughs that form as a security fluctuates in price. Likewise, resistance levels form using reaction highs, which are intermittent peaks that form in the course of prices fluctuating over time.

Round Numbers

Often you will find support and resistance near round numbers. Numbers such as 10, 20, 50, 100 and 1,000 tend to be important support and resistance levels because they represent psychological points where many traders make buy and sell decisions.

Role Reversal

As we discussed earlier, there will be times when prices break down through support or break out (up) through resistance. When these events take place, the roles often times reverse. Therefore, when prices fall below support, that level will become resistance. Likewise, if the price rises above resistance, that level often becomes support.

Figure 1 shows that after the breakout of early January 2006, the old resistance level around $18 has become a new support level. Six months after the breakout, GME shares slipped back to around $18 but managed to hold above the old resistance level. Over two years later, in late 2008, GameStop’s stock price again fell to this level, where support once again held.

Trading Ranges

When looking at a price chart over an extended period of time, you may see times when the price moves within a relatively tight range. In this situation, supply and demand are fairly balanced.

The longer prices stay within a given trading range, the more important support and resistance levels become. When prices are range-bound, traders use support and resistance levels to time their trades: Traders will typically sell resistance and buy support.

Figure 1 shows that GME shares traded between the range of roughly $15.50 and $18 between August 2005 and January 2006. Three times the price neared resistance at $18 only to be repelled and fall back to the support level around $15.50. Eventually, the breakout of January 2006 moved the price of GME shares outside of the trading range.

Conclusion

Just like trendlines, support and resistance provide an indication of where prices may be heading. More specifically, support and resistance levels offer clues as to where up trends or down trends may lose steam. For short-term traders, knowing where price trends may reverse can be quite profitable.