# Pivot point analysis in stock trading 

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The object of trading in stocks for the average trader is to realize capital gains by following price trends. Price trends in technical analysis are identified in a number of ways utilizing a variety of technical tools, most notably the trend line. But equally important for the stock trader is the identification of significant turning points, or pivotal points, when price trends reverse course and change from up to down, or from down to up. Your chances of profiting from stock prices trends will be greater if you can quickly identify these turning points and jump on board just as the new trend is beginning. In this article we will focus on two basic, yet extremely effective, ways of finding pivot points in stock charts.

A pivot point, classically defined, is the price at which the direction of price movement changes. 1 By looking at the high, low and closing values of a stock's price, you can calculate the next day (or hour's) pivot point as well as identify potential support and resistance levels.

Potential (as distinguished from actual) pivot points can be easily seen on stock charts by even casual observers. It is important to note this distinction, because if all *potential* pivot points became actual changes of trend then anyone could make money in stock trading easily. As anyone experienced in this business knows, nothing comes easy when dealing with stocks. Therefore it will do well to keep in mind that most *potential* pivot points are just that - just dips or blips on the price chart until an actual trend reversal takes place.

The great trading past masters, including W.D. Gann, Richard Wyckoff, et al, always emphasized the importance of beginning stock price analysis with the longest timeframe possible (within reason). For instance, if your objective in trading stocks is the very short-term (defined as a few days to as many as three months), you will be tempted to ignore the longer-term timeframes in stock charting. This is a normal reaction among traders, yet one that has led to a great many downfalls and missed profits. Let's pick a random stock as an example, one that few have ever heard of, yet one that has a reliable trading history and adequate liquidity. For this article we chose Aviall, Inc. (AVL:NYSE), an airplane manufacturer. Aviall is a rather low-priced stock, yet not so low that it classifies as a "penny" stock or micro-cap. It actually has a small institutional following and is fairly reliable for trend-following purposes as well as short-term swing trading.

It is this author's personal opinion (bolstered by experience) that the starting point for this type of stock trading should go back at least four years. I am a firm believer that the 4 -year, or "Presidential," cycle should be the starting point for short-term support/resistance and pivot point analysis since it is always important to know where a stock stands within the context of the 4 -year cycle. All stocks respond to this emphatic cycle to some degree or another and it is probably the smallest of all long-term cycles that has great significance to most actively-traded stocks. Since the 4-year cycle bottoms in late 2002, let's go back to the previous 4 -year bottom in late 1998. In doing so, we bring up the 4 -year weekly chart of Aviall and already we see some things worth noting.


First, notice where Aviall bottomed in the previous 4-year cycle bottom in 1998 (November is typically when the 4 -year cycle bottoms). It bottomed around $\$ 10$ and this was confirmed by a double bottom at this same level in the first few weeks of 1999. Fast-forward four years later. At the time this article is being written (late July 2002) the four year cycle is about 3-4 months from bottoming and notice where Aviall is relative to the last 4 -year cycle floor of $\$ 10$. It's very close to testing that important level once again.

Although Aviall currently trades near $\$ 12$, it came very near to testing the $\$ 10$ benchmark earlier this week in late July and is not out of the water yet as there may still be another decline to test $\$ 10$ before a bottom is in. Notice the extremely heavy volume around the $\$ 14$ area that has developed over the past several weeks, even as Aviall was making a run on its three-year highs. This high-volume reversal qualifies as a pivot point since Aviall's price trend reversed below $\$ 14$ after a failed attempt at crossing it. The extreme trading volume that accompanied it only confirms the turning point. This area should be marked on the chart as a legitimate pivot point since not only did Aviall stall at this area, but actually reversed as well. A further decline to $\$ 10$ will only confirm the pivot at \$14.

The fact that Aviall has a history of declining into the final few months of the 4year cycle (known as the "hard down" phase in cycle parlance) is worth noting. Not only was there a steep decline from the second quarter of 1998 to when the last 4 -year cycle bottomed later that same year, but Aviall also declined heavily into the final two quarters of 1994, the previous 4 -year cycle. True to its trading history, Aviall is once again being pressured under the influence of the falling 4year cycle.

Another consideration when studying pivot points is this: not only are those clearly-defined "V-shaped" reversals considered as pivotal points, but so too are the not-too-obvious reversals, the kind that can only be noted when going back over a long period of time and looking at levels where price has reversed time and time again. Once again, the $\$ 10$ level takes on added significance as a pivot point in Aviall. Take a look at the 10 -year monthly chart and notice how many times the price reversed either up or down, or else stalled for considerable
lengths of time, when approaching the $\$ 10$ level. In fact, a case could be made that $\$ 10$ is the level of equilibrium for Aviall, the place where supply and demand are in relative balance. Just about all the major price swings have come off of $\$ 10$ over the past decade.


So now that Aviall is currently under pressure beneath its most recent price pivot of $\$ 14$ and apparently headed for another test $\$ 10$, it will be critical for the trader to observe how Aviall reacts upon reaching this important technical level. A failure to find support above $\$ 10$ (preferably accompanied by heavy volume) should be viewed as a potential point for selling short, and an outright failure of $\$ 10$ to hold in the weeks and months leading up to the November timeframe should be treated as a confirmed sell short entry point. Thus $\$ 10$ becomes an important pivot point in Aviall once again.

The famed trader Jesse Livermore made note of the importance of going back over the past history of a stock in order to locate its pivotal points when he wrote:
"It is when you set down prices in your [chart] and observe the patterns that the prices begin to talk to you. All of a sudden you realize that the picture you are making is acquiring a certain form. It is striving to make clear a situation that is building up. It suggests that you go back over your records and see what the last movement of importance was under a similar set of conditions. It is telling you that by careful analysis and good judgment you will be able to form an opinion. The price pattern reminds you that every movement of importance is but a repetition of similar price movements, that just as soon as you familiarize yourself with the actions of the past, you will be able to anticipate and act correctly and profitably upon forthcoming movements." $\underline{2}$

Probably the simplest way to identify pivot points is to use some form of the basic trend line breakout. This is technical analysis in its purest sense and when performed properly will bring profits to a trader more times than not. Of course,
the classical trend line penetration method requires patience and discipline, virtues that all too many traders lack. Let's explore this method.

Using Aviall's 4-year weekly chart we have drawn four basic trend lines off its alltime price high of July 1999 at around $\$ 19$. Major price peaks should always be the starting point for long-term trend line analysis. From the long slide in mid1999 into 2001, we can draw at least three distinctive downward trend lines, all starting from the 1999 high. Granted, there may be slight variations in how one traders draws a trend line compared to another, but the rule that should be followed by all is: a.) start with the highest point in terms of price, and b.) connect as many secondary highs as you can; the greater the number of times the price line touches the trend line without breaking it, the more legitimate it is.


From 1999 through January 2001, Aviall traced out what is known in technical parlance as a triple or "fan line" retracement, breaking through three consecutive declining trend lines. It is important to note that each time a trend line was broken there was a conspicuous increase in trading volume, which is essential for confirming a trend line breakout. These trend line breakouts and high volume spikes, when taken together, constitute pivot points.

A fourth trend line can also be drawn off the 1999 high to the trend line penetration in March-April 2002, which was also accompanied by a volume spike. From there, Aviall rallied impressively up into early July before meeting with heavy resistance around $\$ 14$ and then reversing. As we mentioned earlier, the $\$ 14$ area also constitutes a pivot point based on the trend reversal and extremely heavy trading volume. All that remains for the trader to watch is how Aviall responds between its current price and the critical $\$ 10$ pivot. How Aviall responds to this pivot point will likely be the basis for how it trades for the remainder of 2002. In a nutshell, this is really what pivot point analysis is all about - locating significant trend reversals and observing how price responds to these levels and to past trend reversal areas.

Sources:

1. Gopalakrishnan, Jayanthi, "Pivot Points," Technical Analysis of Stocks \& Commodities, copyright 2001.
2. Livermore, Jesse, How to Trade Stocks, Traders Press, 2001.
