Chart Pattern Recognition: First in a Series

Understand Pattern Formations First-- To know Which Ones Are Significant to Your Analysis

By David Vomund

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Last spring, AIQ introduced the Chart Pattern Recognition add-on module, where TradingExpert Pro finds significant price patterns on the Russell 3000 stocks (yes, that includes all the large-cap issues), along with many ETF and Forex securities. Trendlines are automatically drawn on the charts of these issues and AIQ's Expert Design Studio can be used to list all the stocks' with completed patterns.

Because it's human nature for people to want the most for their

trendlines are drawn on some stocks that it makes chart analysis confusing. Instead, users should enable TradingExpert to only draw the patterns that are significant to their analysis styles.

In order to know which patterns are significant to your analysis, it is important to understand the pattern formations. In this first of a series of articles, we'll discuss the pattern formations. Then, in a final issue, we'll back test the patterns.

> *"Most users initially have the program (Chart Pattern Recognition) draw trendlines for all 16 patterns…that makes chart analysis confusing. Instead, users should enable TradingExpert to only draw the patterns that are significant to their analysis styles."*

Head & Shoulders

Using the terminology from AIQ's Chart Pattern Recognition module, the Head & Shoulders pattern is a bearish topping formation while the Inverse Head & Shoulders pattern is a bullish bottoming pattern. A Head & Shoulders pattern first forms a local top

money, most users initially have the program draw trendlines for all 16 patterns. Unfortunately, so many

known as the "left shoulder." After some consolidation, another high is formed called the "head." The security then falls to about the same level as its left shoulder. This "right shoulder" is formed when the security begins to consolidate at this level. It is at this time that the pattern can be recognized. A line drawn through the extreme points of the two shoulders constitutes the "neckline." The pattern is not competed until this neckline is broken.

The Inverse Head & Shoulders pattern is similar except the head is lower than the shoulders. Ideally, the break above the neckline occurs on heavy volume.

The pattern should show symmetry, where the right shoulder should resemble the left shoulder. This isn't essential, however. While the neckline should be nearly level, it can have a positive or a negative slope to it.

These patterns are subjective, where a Head & Shoulders pattern to one person may not be one to another person. AIQ's Chart Pattern

Figure 1. Daily chart of Abaxis with Head and Shoulder pattern that was identified and drawn by the AIQ Chart Pattern Recognition system. Red arrow indicates completion of this bearish pattern.

Recognition program removes this subjectivity. Nevertheless, chart pattern enthusiasts will agree with some of the formations the program finds and disagree with others.

Figure 1 shows the bearish Head

& Shoulders pattern as identified by the Chart Pattern Recognition module. I have added the "S" to highlight the shoulders and an "H" to identify the head. Notice the head occurs in August as the price action moved above the top of each shoulder. In this case the neckline is
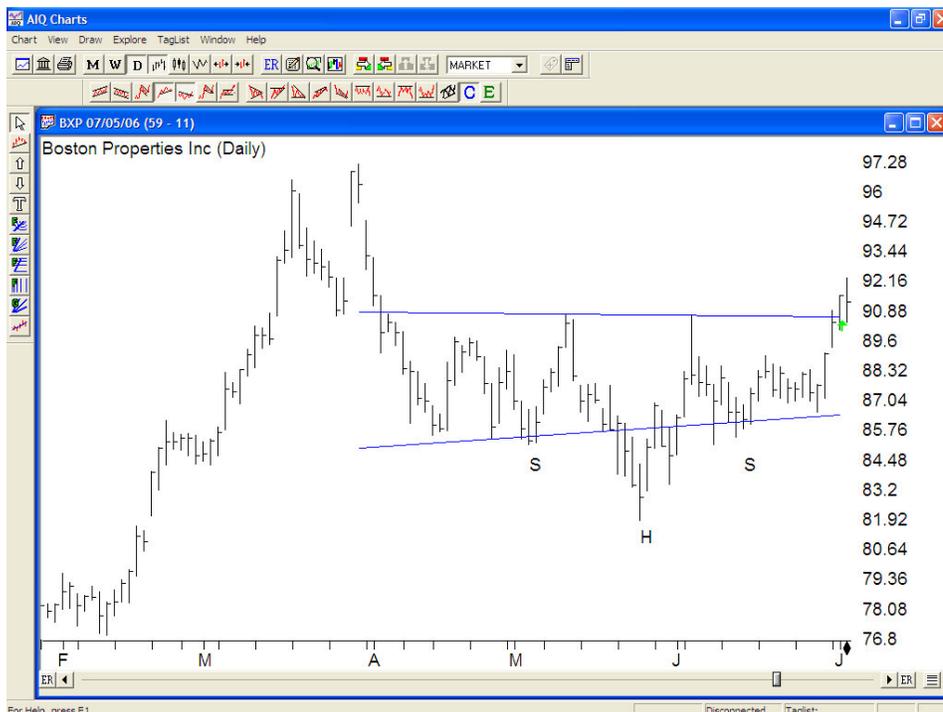

Figure 2. Daily chart of BXP with Inverse Head and Shoulders pattern that was identified and drawn by the AIQ Chart Pattern Recognition system. Green arrow indicates completion of pattern.

downward sloping and represents important support. This support was tested in mid-February, early March, and again in May. The neckline was broken in July, completing the bearish formation.

Figure 2 shows the Inverse Head & Shoulders pattern. In this case the neckline is nearly level and connects the May and June highs. The buy signal occurs in early July when the neckline is pierced.

Figure 3 shows another bullish Inverse Head & Shoulders pattern. You can see how similar the price action is to that found in Figure 2. These figures highlight the benefit of AIQ's Chart Pattern analysis—the program finds the pattern for you. It would have taken me some time to scroll through a large list of stocks trying to find these examples.

Figure 3. Daily chart of Barr Labs with bullish Inverse Head and Shoulder pattern that was identified and drawn by the AIQ Chart Pattern Recognition system.

Triangle

There are several types of Triangle patterns, and AIQ's Chart Pattern analysis places all of them under the general "Triangle" term. A Triangle has converging support and resistance trendlines because rallies stall below previous rallies and declines are less severe than previous declines.

There are Ascending Triangles, where there is a set resistance level but each sell-off is less than the previous one. In most cases, the security breaks through the horizontal resistance. The Descending Triangle is the opposite. The Symmetrical Triangle shows the trendlines that envelope the pattern converging at a similar rate.

Figure 4 charts what is an Ascending Triangle pattern. The upper resistance trendline connects the September highs and the lower support trendline connects the late August and September lows. In this example, the break was to the downside. Notice volume was heavy on the day the pattern was completed.

Triangles are very common and AIQ's Chart Pattern Recognition program finds many examples.

Rectangle

Some patterns can be subjective. The Rectangle pattern is not. This pattern is formed when a security fluctuates back and forth in a narrow range. A horizontal line can be drawn connecting the highs and another line can be drawn connect-
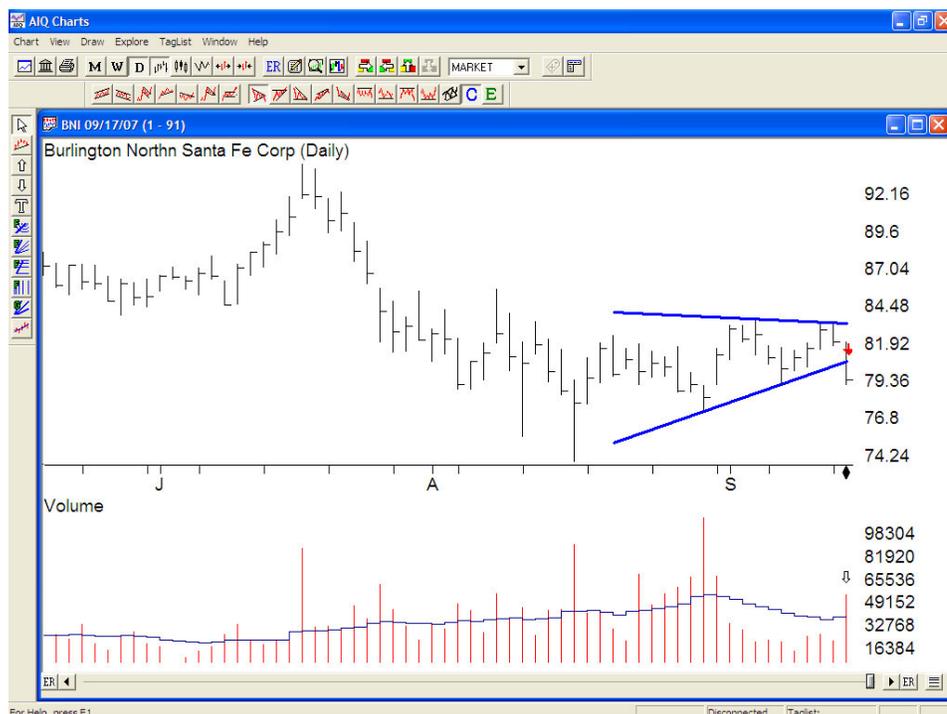

Figure 4. Daily chart of BNI with Ascending Triangle pattern that was identified and drawn by the AIQ Chart Pattern Recognition system. Red arrow indicates completion of this bearish pattern.

ing the lows. The Rectangle cannot predict the direction of the ultimate breakout. A trader waits for the breakout before placing a trade. Ideally, the breakout is on heavy volume.

Figure 5 shows a perfect Rectangle pattern. Boston Private Financial Holdings (BPFH) price activity stayed in a narrow range for about five months. One trendline is drawn connecting the high points and another is drawn connecting the low points. It wasn't until January that the price moved above its Rectangle pattern and it did so during a period of above average volume.

Figure 6 shows another Rectangle pattern, but this one takes place over the course of 1-½ months. Astec Industries (ASTE) had resistance at $36 and support at $32.8. Resistance was broken on January 16. Astec Industries and Boston Private Financial Holdings are two stocks that I've never heard of, but Chart Pattern Recognition brought them to my attention because of their completed Rectangle patterns.

Figure 5 Daily chart of BPFH with Rectangle pattern that was identified and drawn by the AIQ Chart Pattern Recognition system. Green arrow indicates direction of breakout from the pattern.

Rectangle patterns occur less frequently than Triangle patterns, and in my trading play a much larger role.

Figure 6. Daily chart of ASTE with Rectangle pattern that was identified and drawn by the AIQ Chart Pattern Recognition system. Green arrow indicates direction of breakout from the pattern.

Rising/Falling Wedge

A Wedge is a pattern whose sides are not parallel and converge in the direction of the overall trend. The range of daily prices narrows as the price enters the wedge's intersection. Wedges are typically formed after a strong upward or downward move.

For a stock in an uptrend, the break below the Wedge means the security will likely begin a sideways consolidation or move lower. Ideally, volume dries up when the security is in the Wedge and then the breakout occurs on heavy volume. For a Rising Wedge, it is possible for the break to be on the upside but that leads to a high-risk entry price. Chart Pattern Recognition will also search for Falling Wedges.

Figure 7 plots Abbott Labs (ABT) with a Rising Wedge. The trendlines connect the high and low points in price action over the last month. Since it is a Rising Wedge, more significance is placed on drops below the pattern. This occurred in May. Similar to the Triangle, this pattern occurs frequently.
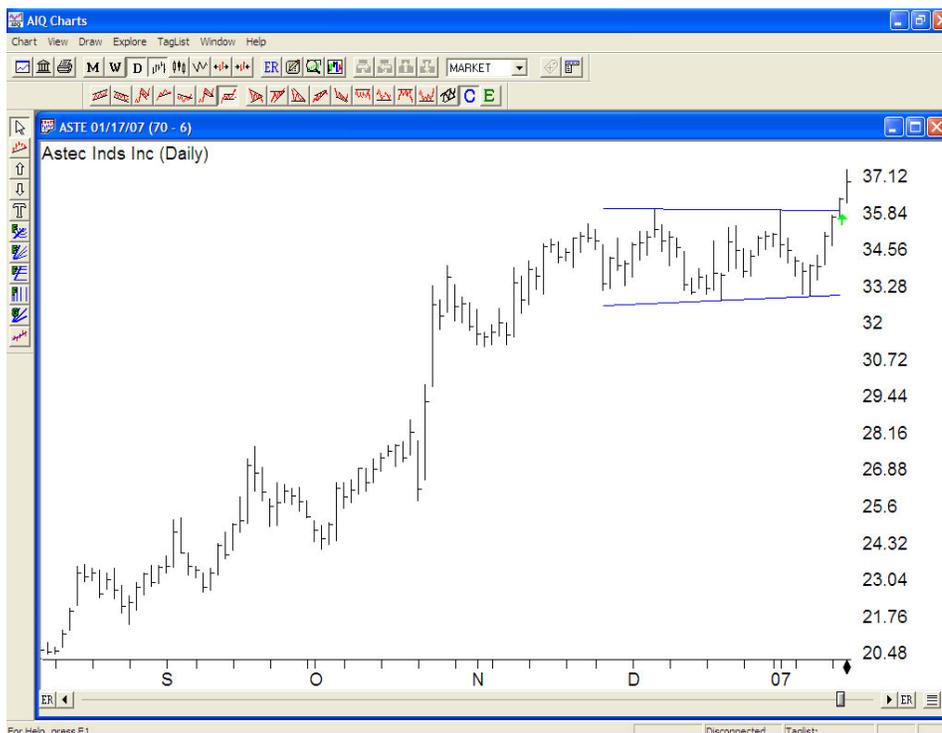
Double Top/Bottom

Similar to the Head & Shoulders pattern, the Double Top and Double Bottom are reversal patterns. Also like the Head & Shoulders pattern, this formation can be subjective.

The Double Bottom is formed when the security hits a low, rallies, retests the low, and then rallies above the previous swing high. The pattern is complete when the stock rallies above the high point that occurred in the middle of the pattern. The opposite is true for a Double Top.

This pattern is best seen in an example. AIQ's Chart Pattern analysis program found Bank Mutual (BKMU) last April (**Figure 8**). BKMU fell to a low in March (point A), rallied to point B, and then retested the low (point C). The pattern was completed at point D, when it rose above point B. Point C can be slightly higher or slightly lower than point A, but they do need to be in the same vicinity.
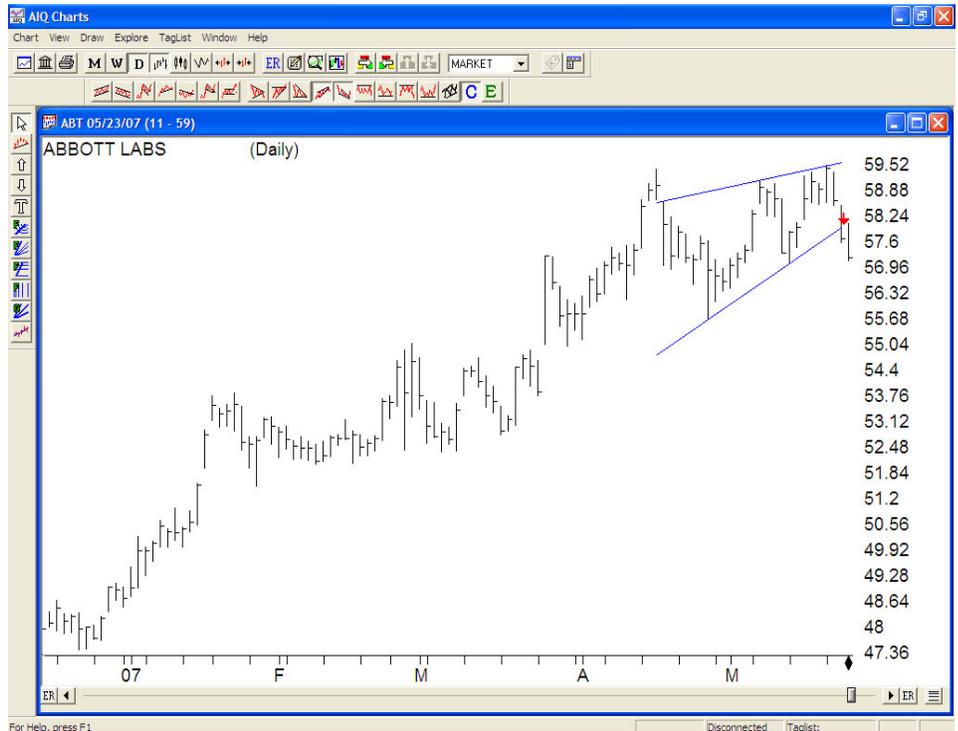

Figure 7 Daily chart of ABT with Rising Wedge pattern that was identified and drawn by the AIQ Chart Pattern Recognition system. Red arrow indicates direction of breakout from the pattern.

Conclusion

Most AIQ users draw trendlines and look for chart formations. Even for those users, the Chart Pattern Recognition module serves as an important tool. It identifies patterns that you may have missed and is a tremendous time-saver. Still, you should have it only identify the patterns that you typically use. For myself, the Rectangle is the most important pattern so I've enabled this pattern while removing other patterns that are less meaningful in my analysis.

Editor's Note: A discussion of how to use AIQ's Chart Pattern Recognition was covered in the May 2007 issue of the *Opening Bell*.

David Vomund publishes VIS Alert, a weekly investment newsletter. For a sample copy, go to *www.visalert.com*.
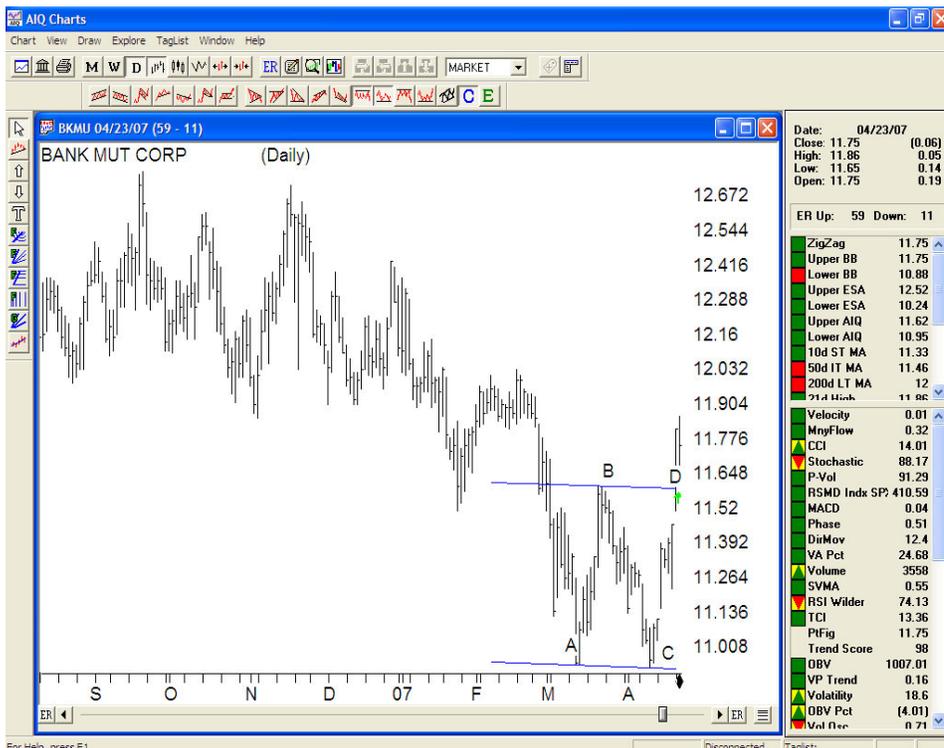

Figure 8 Daily chart of BKMU with Double Bottom pattern that was identified and drawn by the AIQ Chart Pattern Recognition system. Green arrow indicates completion of this reversal pattern.

Market Review

What We Can Learn from Looking Back at Market Low

September was a bullish month—especially on September 18, the day the Federal Reserve lowered its discount rate to 5.75%. On that day, stocks and income vehicles soared. Counting the late rally the day before, the Dow Industrials added 600 points. For the month of September (through September 24), the S&P 500 gained 3% and the Nasdaq Composite rose 2.7%.

From the correction low in mid-August through September 24, the S&P 500 is up 7.9%. Those who bought the S&P 500 mid-day on August 16 during the capitulation already have a 10% profit!

It's instructive to look back at the low to see what we can learn from it. Heading into July it had been four years without a 10% correction. That sort of drop was overdue. The correction lasted one month and was severe. A low came on August 16 and the market never looked back.

August 16 provided a good definition of what "capitulation" is. While the S&P 500 reached its 10% correction on that day, emerging markets and many high growth Nasdaq stocks were down 10% on that day alone. Even more telling was the massive selling in extremely high quality safe issues. The very safe A+ rated preferred stock from Wells Fargo (WSF), along with other income securities, was crushed. Mid-day, anything that traded was sold.

On August 17 several country ETFs completed Island Reversal patterns. Ishares China (FXI), iShares Singapore (EWS), iShares Taiwan (EWT), iShares United Kingdom (EWU), and iShares Europe 350 (IEV) all completed the pattern.

As the market recovered, the S&P 500's 1490 to 1505 level constantly acted as resistance. That level was broken when the Fed lowered rates in August.

While the S&P 500 had to wait until September 18 to break above a trading range, the Nasdaq 100 was in a pattern of higher highs. And volatile international markets were stronger still. The leader, iShares China (FXI), quickly recovered from its summer selloff and was hitting new highs by mid-September. For more information on this pattern, please read the July 2004 *Opening Bell* (http://www.aiqsystems.com/july04obm.pdf).

International markets are leading the U.S. market, but there are some domestic sectors that are also performing exceptionally well. In September Precious Metals leaped 25%, Natural Resources rose 12%, and Energy Services jumped 11%. The lagging sectors were Construction & Housing along with Multimedia. These sectors were about unchanged during the month.

STOCK DATA MAINTENANCE

The following table shows stock splits and other changes:

Stock	Ticker	Split	Approx. Date
Parker Hannifin	PH	3:2	10/03/07

Trading Suspended:
AMC Ent. (AC)
Encore Energy Partners LP (ENP)
KeySpan (KSE)
Washington Savings Bank (WSB)
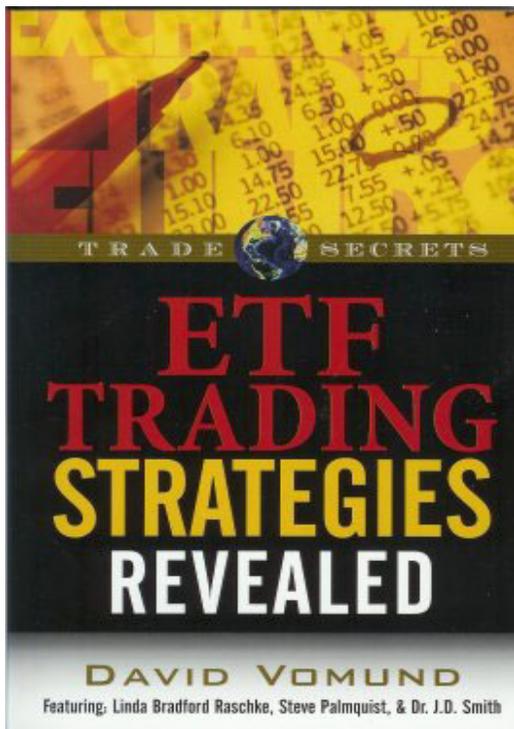Wild Oats Mkt (OATS)

Name Changes:
Ciphergen Biosystems (CIPH) to Vermillion (VRML)
Health Care Property Investors (HCP) to HCP (HCP)
Terabeam (TRBM) to Proxim Wireless (PRXM)
Vending Data (VNX) to Elixir Gaming Technologies (EGT)

S&P 500 Changes

Changes to the S&P 500 Index and Industry Groups:

Leucadia National Corp. (LUK) replaces Keyspan Energy (KSE). LUK is added to the Diversified Financial Services (FINANOTH) group.

Microchip Technology (MCHP) replaces Compass Bankshares (CBSS). MCHP is added to the Semiconductors (ELCTRONS) group.

ETF Trading Strategies Revealed

In his new book, David Vomund, AIQ's Chief Analyst reveals the secrets of profiting from a new and growing investment vehicle - the Exchange Traded Fund. Pulling from experts in the field like Linda Bradford Raschke and Steve Palmquist, this book has all the information you need to begin trading ETF's for profit.

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