Trading Rule #1 Stocks
By Wayne A. Thorp, CFA

In the September/October 2007 issue of CI, we introduced Phil Town's Rule #1 approach to picking stocks, which involves selecting "wonderful" companies at attractive prices. A summary of Town's methodology is provided in Table 1 and you can find the original Rule #1 article on-line at the Computerized Investing Web site (www.computerizedinvesting.com).

We also developed a stock screen based on the steps Town outlined in his book, "Rule #1" (2006, Crown Publishers), and clarifying statements he subsequently has made at his blog (www.philtown.com).

Each month the companies passing the AAII Rule #1 screen are posted at the AAII Stock Screens area of AAII.com (www.aaii.com/stockscreens).

We created the Rule #1 screen and track its results using AAII's Stock Investor Pro fundamental stock screening and research database program. Subscribers to the program can download weekly and monthly data updates from the AAII Web site, with new month-end data usually available within one or two days of the last trading day of the month.

Screening: Only the First Step

Once Town finds companies that meet his fundamental criteria, he does not automatically buy them. Identifying Rule #1 companies is only one half of his investment methodology.

Using what he calls the "Three Tools," Town trades in and out of these companies until either the stock price reaches its fair value or the underlying fundamentals change to the point that the company is no longer wonderful.

The focus of this article is how to use Town's three technical tools to trade your own portfolio based on the Rule #1 screen.

The Individual Investor Versus "The Market"

Town takes the phrase "Rule #1" from Warren Buffett who famously said that the Rule #1 of investing is "don't lose money." Town points out, however, that just because you find a company that satisfies all of your Rule #1 criteria it doesn't automatically mean that you will make money on it. The reality is that many companies that you will find using the

> "Institutional money managers don't always buy stocks based on long-term prospects, instead placing the short-term success of their business first."

Rule #1 methodology are experiencing strong price declines—that is why they are trading at such a significant discount.

If your underlying analysis is correct, chances are you have a company worth investing in. Many times, however, the market may not agree with you. Stock prices are driven by the law of supply and demand—money flowing into a stock drives prices up and money flowing out pushes prices down. According to Town's book, institutional investors—mutual funds, pension funds, etc.—own $14 trillion of the $17 trillion in the stock market. Town contests that, unfortunately, institutional money managers don't always buy stocks based on long-term prospects, instead placing the short term success of their business first. Therefore, especially in the short term, prices are driven more by

emotion than by sound investment principles.

Despite the power institutional investors wield, Town sees opportunity instead of hindrance. Since institutional managers often hold hundreds of millions, if not billions, of dollars of individual stocks, they cannot quickly buy into or sell out of positions without having a significant impact on stock prices. Instead, institutions typically space out their trades of individual stocks, first to keep from moving the stock, but also to try to mask their activity to keep others from following suit. If individuals could identify the trend of institutional investors—aka, the market—they may be able to get ahead of the curve. This is where Town's three tools come into play.

Getting a Leg Up: The Three Tools

To take advantage of the fact that institutional investors drive the market, Town uses three tools or technical indicators to time his entry into and exit out of his Rule #1 stocks. As Town puts it, institutional investors are the tools. By tracking these tools over time, Town believes individual investors can get in and out ahead of the "big money."

Furthermore, he feels that these tools help prevent our emotions from dictating our investing.

Town's "Three Tools" are:
- MACD,
- stochastic oscillator, and
- moving average.

MACD

The MACD—moving average convergence/divergence—indicator was developed by Gerald Appel and is a commonly used technical indicator. MACD uses two moving averages of closing prices, a "long" and a "short." By taking these two lagging indicators and subtracting the longer

Table 1. Phil Town's Rule #1 Investing in Brief

Philosophy and Style

Invest in "wonderful companies" that have meaning to you, which you should be willing to rely on as your sole means of financial support for the next 100 years. Look for companies with financial strength, stability, and quality management whose share price is at least half their intrinsic value. Buying below intrinsic value provides a "margin of safety" that protects investors from incorrect analysis as well as unfavorable company developments, with subsequently less risk of a market overreaction on the downside. Town believes that, by following the Rule #1 approach, you can secure at least a 15% annual rate of return with a minimum level of risk.

Universe of Stocks

No restrictions, but Town suggests investing in companies that you know about or have meaning to you. In other words, companies that deal in areas related to your work, interests, hobbies, etc. In addition, he suggests avoiding "illiquid stocks"—those stocks with an average daily trading volume of less than 500,000 shares.

Criteria for Initial Consideration

- Minimum compound average annual growth of 10% in earnings per share, equity (book value per share), sales, and free cash flow over the last 10 years.
- Minimum average annual return on invested capital of 10% over the last 10 years.
- Manageable debt—the current level of long-term debt should not exceed three times the level of free cash flow over the last four fiscal quarters (trailing 12 months).
- Current share price should not be more than 50% of the company's fair value, which Town refers to as the company's "sticker price."

Secondary Factors

- Look for corporate managers who are owner-oriented. As a rule, Town avoids companies with CEOs who accept stock options as compensation.
- Avoid companies where several insiders are selling significant portions of their holdings.
- Use technical analysis and charting tools—MACD, stochastics, and moving averages—to help time buy decisions.

Stock Monitoring and When to Sell

- Town states "diversification spreads you too thin and guarantees a market rate of return," so he instead focuses on only "a few" businesses in different sectors or industries. However, the number of companies you invest in is dictated by the amount of money you have to invest. Try to keep commissions as a percentage of your total amount invested below 0.5%.
- In Town's view, there are only two times to sell: 1) when the business ceases to be "wonderful," and 2) when the share price rises above the "sticker price" (fair value).
- Using MACD, stochastics, and moving averages, Town trades in and out of companies until it is a true sell.
- If a stock's market price reaches its sticker price, he sells and then watches to see if the price falls back to where it is at least 20% below the sticker price (and still meets the other criteria). He then uses the Three Tools to trade the stock again until it satisfies one of his sell rules.

moving average from the shorter, the MACD becomes a momentum oscillator.

Traditionally, the formula for the MACD is the difference between a security's 26-period and 12-period exponential moving average (EMA). A period can be a minute, day, week, month, etc. Exponential moving averages place more weight on more recent price data as compared to simple moving averages, where each price point carries the same weighting.

The MACD oscillator also includes a "trigger line," which is typically a nine-day EMA of the MACD. Bullish crossovers take place when the MACD oscillator moves above its trigger line and bearish crossovers occur when the MACD oscillator moves below the trigger line.

By adjusting the length of the moving averages, you make the MACD more or less responsive—shorter moving averages make the MACD quicker or more responsive, while using longer moving averages makes the MACD slower or less responsive. Town prefers a slightly more respon-

sive MACD, so he uses an eight- and 17-period EMA, while still using a nine-day EMA for the trigger line.

Figure 1 is a three-month daily price chart for W&T Offshore Inc. (WTI) from the StockCharts Web site (www.stockcharts.com). On the upper part of the chart, an eight-day EMA (blue line) and 17-day EMA (red line) overlay the price plot. The MACD oscillator appears below the price chart as a black line, with an accompanying red line representing the trigger line.

There is also an MACD histogram at the very bottom of the chart, which represents the difference between the MACD oscillator and the trigger line. When the MACD oscillator line is above the trigger line, the histogram is positive, while the histogram is negative when the MACD oscillator is below the trigger line. For most investors, the histogram is much easier to interpret, which is why Town uses it instead of the MACD oscillator.

In this example, the MACD oscillator value is positive as long as the shorter, eight-day EMA is greater than the longer 17-day EMA. Over the entire three-month period in Figure 1, WTI's eight-day EMA was above the 17-day EMA, so the MACD oscillator was always positive.

When the MACD oscillator line is positive and rising, the difference between the eight-day EMA (blue line in Figure 1) and the 17-day EMA (red line) is increasing. At the same time, the histogram bars get taller. This represents positive price momentum and is a bullish signal. Conversely, if the MACD oscillator is negative and falling, the negative difference between the eight-day EMA and the 17-day EMA is growing.

A centerline crossover—when the MACD histogram moves from positive to negative territory, or vice versa—occurs when the faster moving average crosses the slower moving average (this did not occur in Figure 1).

The MACD gives off numerous signals used by traders, but Town is

Figure 1. Example of MACD Indicator

Source: StockCharts.com

most interested in centerline crossovers by the MACD histogram. For him, a buy signal occurs when the histogram bars cross from negative territory to positive; the MACD histogram generates a sell signal when it crosses over to negative territory from positive.

Stochastics

The second tool Town uses is the stochastic oscillator, developed by George C. Lane. This momentum indicator gauges the buying or selling pressure on a stock's price based on the location of the current closing price relative to the high/low price range over a defined number of periods. Closing prices that are consistently near the top of the range indicate accumulation (buying pressure) and those near the bottom of the range indicate distribution (selling pressure).

There are two common types of stochastic oscillators—"fast" and "slow." Whether you are looking at the fast or slow stochastic, the oscillator does consist of two lines—%K

and %D. For the fast stochastic, the %K line is calculated as shown in the box below.

The %D line is a trigger or signal line for both the fast and slow stochastic. It is a smoothed version of the %K line, often using a three-day simple moving average (SMA).
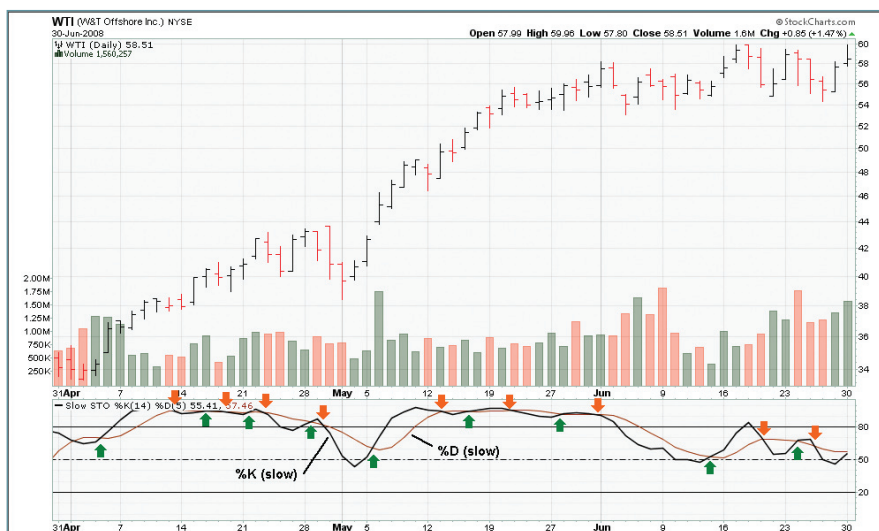
The slow stochastic is also a smoothed version of the fast stochastic %K line, also typically using a three-day simple moving average. And the slow %D line is a smoothed version of the slow %K line.

The value of the %K line tells us the percentile of the high/low range over the calculation period the latest closing price is in. As a percentage, the K% line will fluctuate between 0 and 100. When using the stochastic oscillator, readings below 20 are considered oversold and readings above 80 are considered overbought. However, just because the %K line is above 80 does not mean it will immediately fall, nor do readings below 20 indicate an impending upward move in price momentum. A security can continue to rise after the stochastic

Calculation of %K Line of Stochastic Oscillator

$$\%K = 100 \times \frac{\text{last closing price} - \text{lowest low over last n periods}}{\text{highest high price in last n periods} - \text{lowest low price over last n periods}}$$

Figure 2. Example of Stochastic Oscillator

Source: StockCharts.com

Figure 3. Example of Simple Moving Average

Source: StockCharts.com

oscillator passes 80 and continue to fall after reaching 20.

Again, there are many ways to use stochastics to time trades. Town uses crossovers between the %K and %D lines as buy and sell signals, with movements above or below the 20th and 80th percentiles offering confirmation. Unfortunately, Town is somewhat ambiguous as to whether he uses the fast or slow stochastic, instead stating in his book that he programs the stochastic for a "moderate trading speed." He does go on to say that he uses the "standard" 14-period %K line, but uses a five-period %D line instead of the more common three-period. Using a "slower" trigger

line presumably is what he means by a "moderate" trading speed.

Based on our analysis of charts offered as examples in his book and at his Web site, we feel relatively confident that Town uses the slow stochastic oscillator. Therefore, Figure 2 shows a three-month daily price chart, again for W&T Offshore, with the slow stochastic oscillator plotted in the area just below the price plot. Even using a five-day simple moving average for the %D line resulted in the slow stochastic generating many signals, most within days of each other. This is one rationale for relying on multiple indicators to time trades, as using only one could have

you spending most of your money on trading costs.

Moving Averages

The final tool that Town uses is the simple moving average. Moving averages are one of the most popular and easy-to-use tools available to technicians. Moving averages smooth a data series and make it easier to spot trends.

A simple moving average is formed by computing the average price of a security over a specified number of periods. While it is possible to create moving averages from the open, high, or low price points, most moving averages use the closing price.

In his book, Town only discusses using the 10-period simple moving average. For him, a buy signal occurs when the closing price moves above the moving average and a sell is when the price moves below the moving average. However, he admits on his blog that he should have suggested a 30-period simple moving average to avoid getting many false signals.

Town also points out that using a 30-period moving average has its advantages when prices are in a strong downtrend. Sometimes, according to Town, institutional managers will create false demand in a stock in order to lure in unsuspecting buyers. However, the institutions use this as an opportunity to sell their shares at a slightly higher price, eventually pushing the price back into its downtrend. The longer 30-period moving average will help you avoid these "bear traps," since it is less susceptible to short-term price movements. However, like most things in life, there is a trade-off. Using a short-term moving average will potentially allow you to capture more of a prolonged trend.

Figure 3 shows the three-month daily price chart for WTI with both 10-day (orange line) and 30-day (blue line) simple moving averages overlaid on the price plot. The blue up and down arrows indicate buy and sell signals based on crossovers of daily the closing price and the 30-day simple moving average. Over

the three-month period of this chart, the 30-day simple moving average generated only three signals—two buys and one sell. By comparison, the 10-day simple moving average generated 11 signals (orange arrows). While using the longer 30-day simple moving average does reduce the number of trades, it does not prevent the occasional "whipsaw." In late June, after WTI's price had been trading in a sideways range for several weeks, the 30-day simple moving average still generated a sell signal and a buy signal on back-to-back days.
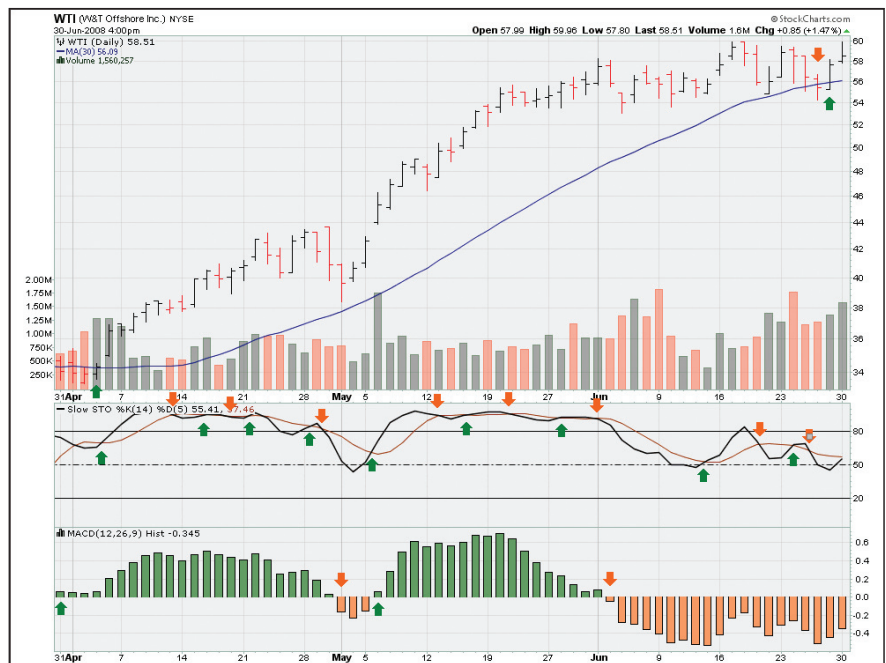
Daily Versus Weekly Charts

Outfitted with our collection of tools, we are almost ready to put them to use. However, you may have noticed that, up until this point, we have only referenced "periods" when discussing the calculation of the various indicators. The period length can have a profound impact on the signals generated by any technical indicator, so it is important to discuss the impact of using daily or weekly price charts for your analysis.

Town recommends using weekly charts for "long-term situations," especially when you are investing funds that can't be moved quickly, such as investments in a 401(k) account. As he puts it, weekly charts will help you avoid a "market meltdown," but they won't have you selling one day and possibly buying the next, as you might with daily charts.

Changing to a weekly view on a chart also means that indicators that had been calculated using daily prices are now based on weekly closing prices. Therefore, a 30-day moving average now becomes a 30-week moving average. While he suggests using weekly charts to avoid overtrading, he says nothing about adjusting the timeframes used for the indicators. Therefore, we do not adjust the three tools for weekly charts.
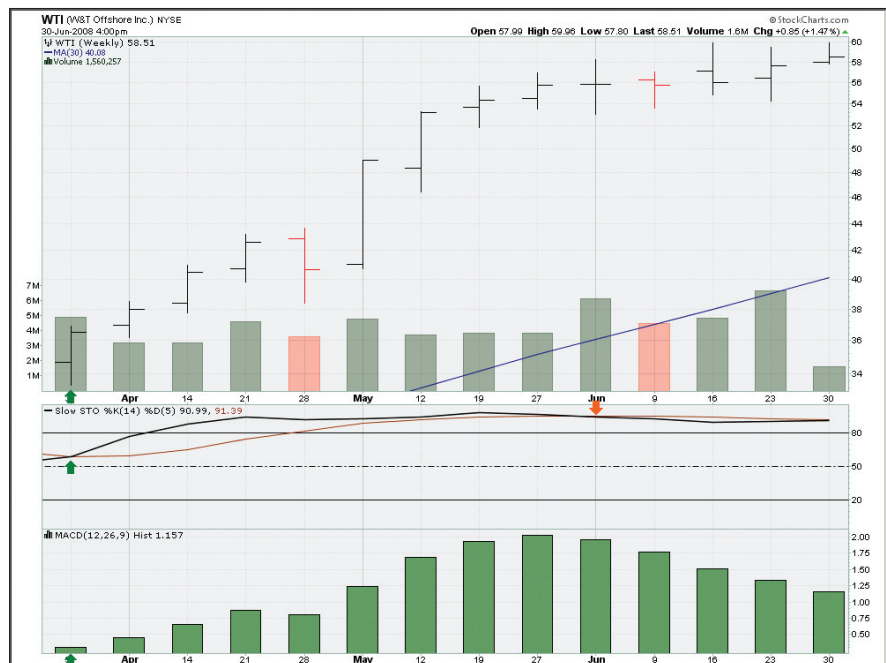
Figures 4 and 5 are three-month daily and weekly charts for WTI, respectively, with the three tools plotted on both. As the charts show, the behaviors and values of the tools

Figure 4. The Three Tools on a Daily Price Chart

Source: StockCharts.com

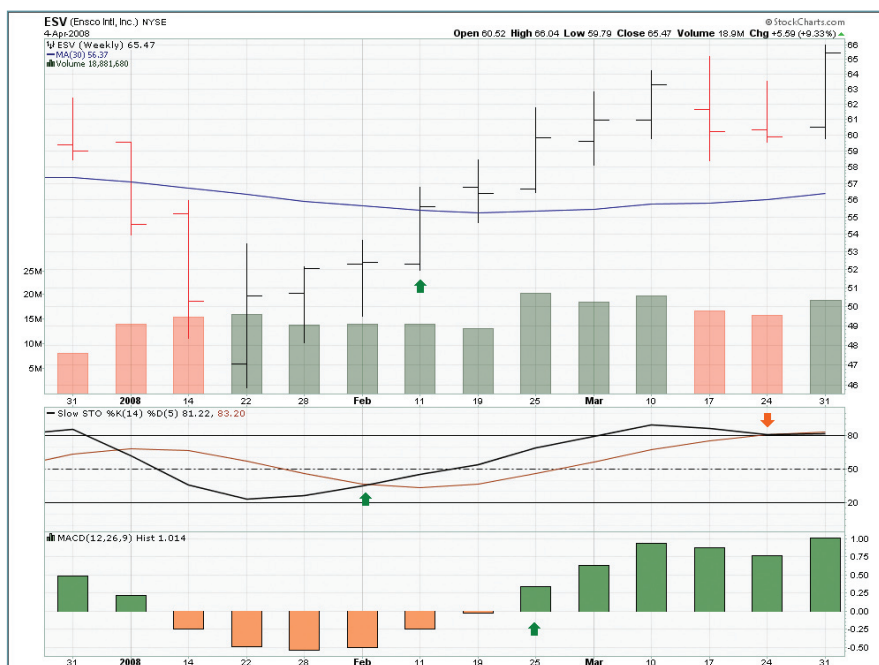**Figure 5. The Three Tools on a Weekly Price Chart**

Source: StockCharts.com

based on daily and weekly periods are significantly different. Looking at the three-month weekly chart for WTI (Figure 5), all of the indicators were flashing buy signals until late May, when the %K line for the sto-

chastic oscillator slipped below the %D line. By comparison, all three tools on the daily chart (Figure 4) generated multiple buy and sell signals over the period.
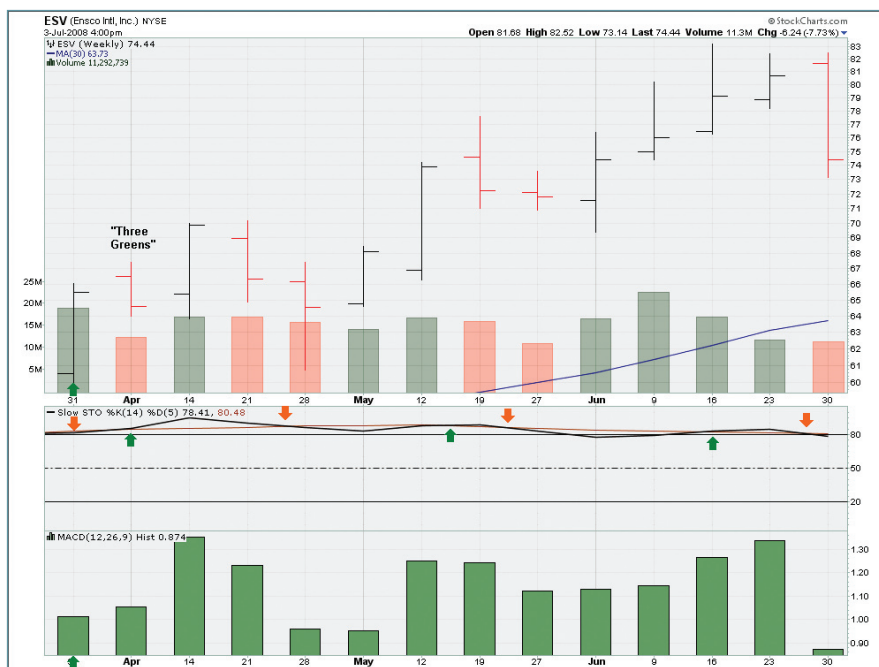
In the hope of reducing the number

Figure 6. Three-Month Weekly Price Chart Through April 4, 2008

Source: StockCharts.com

Figure 7. Three-Month Weekly Price Chart Through July 3, 2008

Source: StockCharts.com

of false trades, we will use weekly charts for the rest of our analysis.

Three Greens You're In, Two Reds You're Out

It is now time to put the tools to work for us. Town places those companies that meet his Rule #1 criteria on a watchlist, where they remain either until until their annualized growth rates or average return on invested capital fall below 10%

or their long-term debt-to-free-cash-flow ratio rises above 3.0. As long as a company is on his watchlist, Town uses the Three Tools to trade in and out of the stock until its market price matches its Sticker Price (fair value).

In an average month, the AAII Rule #1 screen has 13 passing companies. However, don't expect to be holding anywhere near that many stocks at a given time, especially in this current market environment. In fact, don't be surprised if most or all of your money sits on the sidelines. In his book, Town claims only to invest in a few companies at a time in different sectors or industries.

To recap Phil Town's buy methodology in regards to the Three Tools:

1. Latest closing price above 30-period moving average;
2. %K line of slow stochastic oscillator above %D line; and
3. MACD histogram above centerline (greater than zero).

Figure 6 is a three-monthly weekly price chart for Ensco International (ESV). This company passed the AAII Rule #1 screen at the end of March 2008. However, we prefer to run our analysis once a week—on the weekends—so the chart runs through April 4, 2008, the end of the first week following the end of March. At that time, as the chart shows, the closing price for the week was above the 30-week moving average and the MACD histogram was above the centerline. However, just that week, the %K line of the stochastic oscillator dipped below the %D line. Since we need "three green arrows" in order to buy, we wait to see what the next week brings. As it turns out, for the week ending April 11, 2008, the stochastic did go green, allowing us to buy.

Once Town buys a stock, his sell rules in regards to the Three Tools are:

1. %K line of slow stochastic falls below %D line; and
2. MACD histogram falls below centerline (is less than zero); and
3. The stock is trading sideways.

Figure 7 is a weekly price chart for ESV from April 4, 2008, through July 3, 2008. Over this period, the weekly closing price never fell below the 30-week moving average and the MACD histogram was always in positive territory. The arrows for the slow stochastic indicate when the K% line moved above the %D line (up arrow or buy signal), or when the %K line moved below the %D line (down arrow or sell signal). While the slow stochastic was showing sell, there was never a confirming sell signal from the MACD histogram, so we stayed invested in ESV. However, the price dropped almost 8% the first week of July, pushing the stochastic to a sell signal and driving the MACD histogram to its lowest level in three months. In such scenarios, you may wish to monitor a stock on a day-to-day basis in case it makes a dramatic downward move.

Conclusion

The tools discussed here are intended to help the individual investor follow market trends (institutional investors). Given the large positions these investors usually take in individual stocks, it may take them days or even weeks to fully invest or divest. Since most individual investors don't have to worry about impacting individual stock prices with their own purchases and sales, they can move much more quickly, getting in or out ahead of the institutional investors.

These tools are not intended to trade all stocks. Town warns that he only uses these tools to trade his Rule #1 companies. Assuming we perform our analysis correctly, the companies that pass the screen should eventually attract the attention of the market. Using the Three Tools allows us to see when the market comes calling. ◖

◖ **Wayne A. Thorp** is editor of *Computerized Investing* and AAII's financial analyst.