



TRADING Strategies

Using volume bands TO TRADE TRENDS

Identifying high-volume bars offers an alternative way to define support and resistance and enter trend-following positions.

BY ANDY BUSHAK

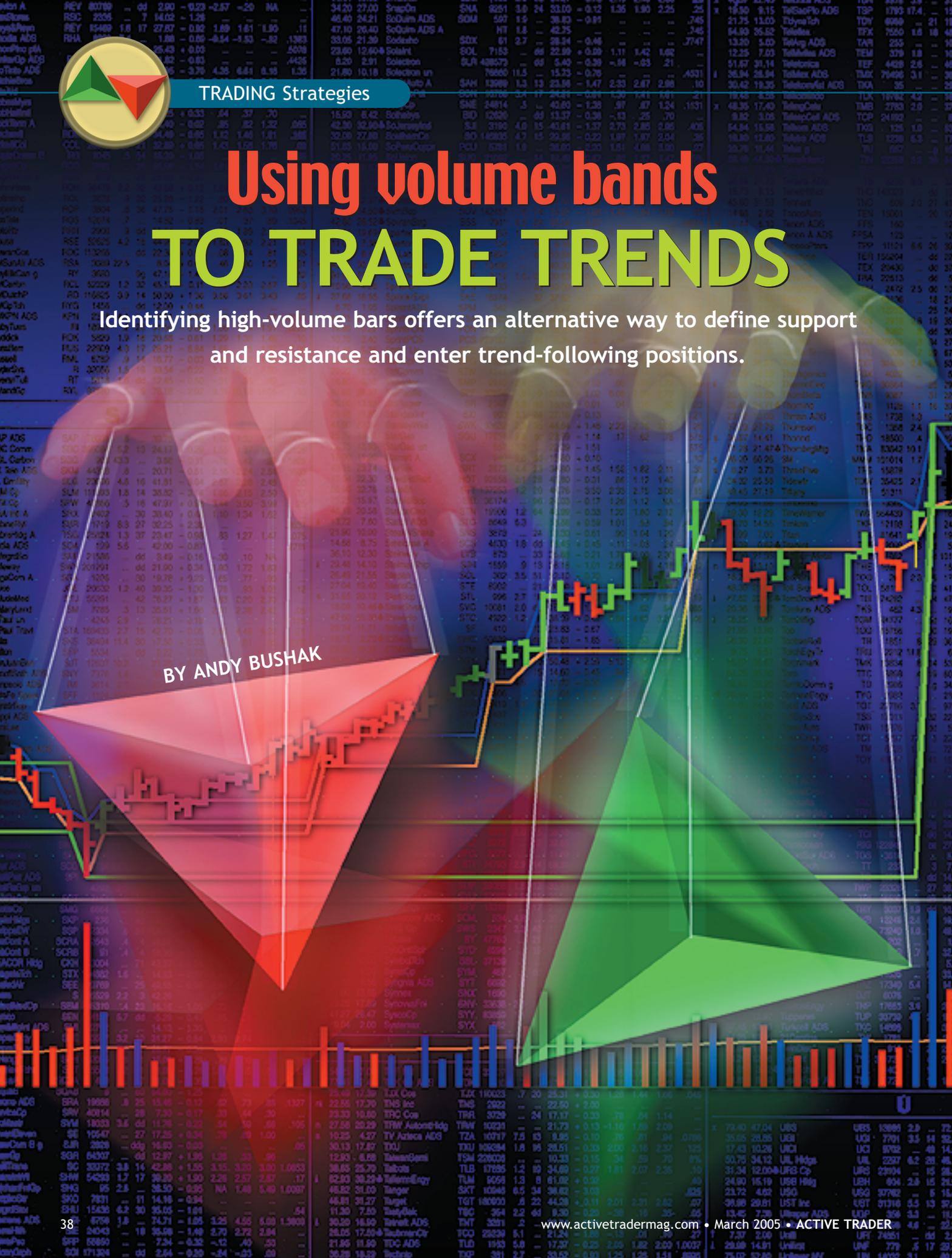
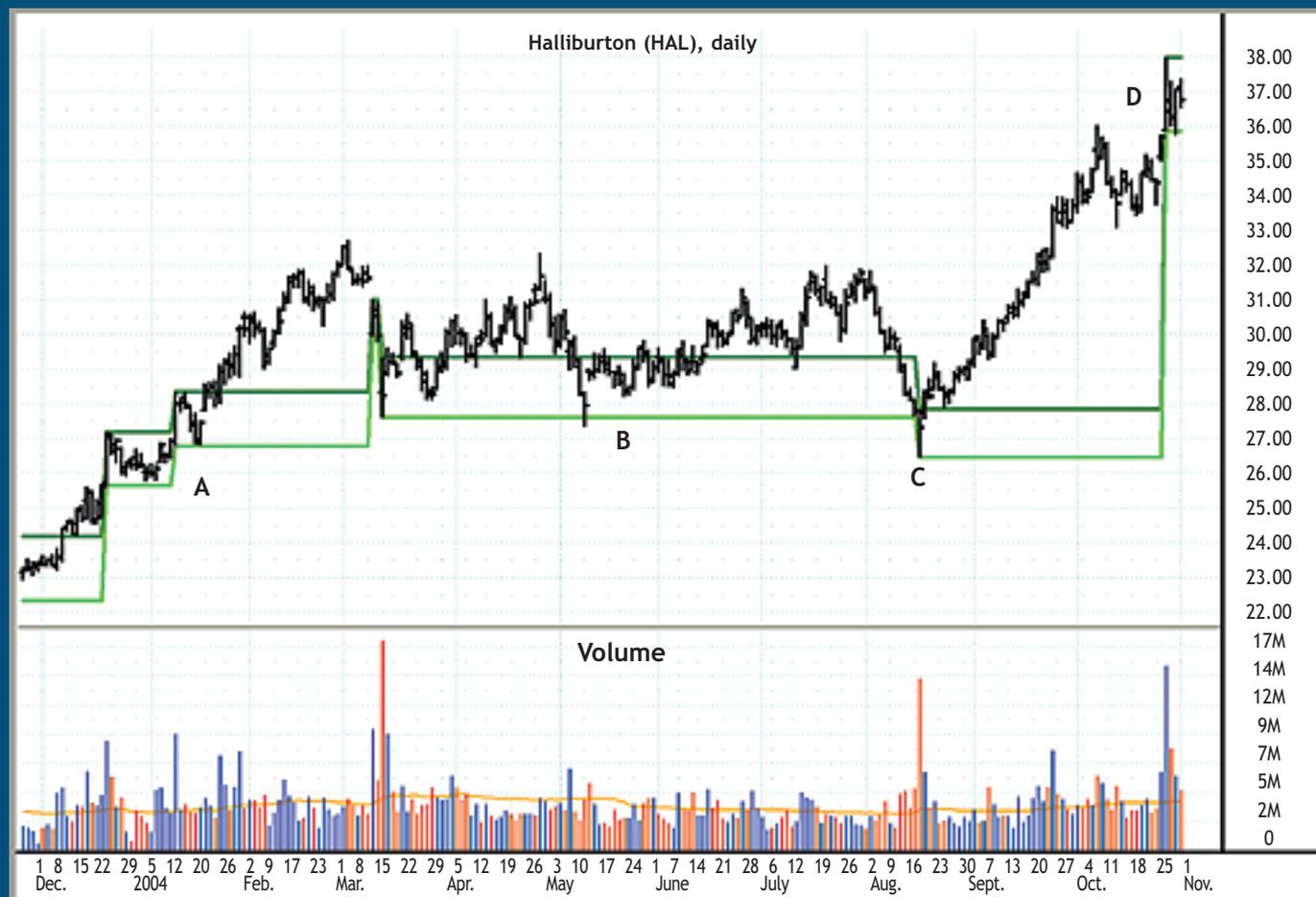


FIGURE 1 QBV150 VOLUME LINES

The upper (dark green) channel line extends from the top of the most recent bar with volume greater than 150 percent of the 50-day average volume. The lower (light green) channel line extends from the bottom of that bar. During the strong uptrending periods, price will often push above the upper channel line and will remain entirely above the lower line.



Source: eSignal

The technical trader considers two aspects of a market — price and volume. While price is what we actually trade, volume is always important because its level can be considered a vote of confidence (or no confidence) for a trend. When the demand for a market is high, the volume rises as price rises. Conversely, if sellers are controlling the market, volume increases as price falls.

To objectively determine what constitutes high volume, you need a standardized technique that compares current volume to past volume. The following method for quantifying volume can be used to determine the trend and in making trading decisions.

Setting the standards

Two standards, or thresholds, will be used for classifying daily

volume: when a bar's volume is 150 percent more than the 50-bar average volume, and when a bar's volume is 50 percent more than the 50-bar average volume.

These thresholds are used to define trends. The primary (longer-term) trend is identified by a volume reading above the 150-percent threshold and the secondary (shorter-term) trend is indicated by a volume reading between the 50-percent and 150-percent thresholds.

These thresholds, which are displayed as lines on price charts (see Figure 1), are referred to as "QBV50" for volume readings above the 50-percent threshold and "QBV150" for volume readings above the 150-percent threshold. ("QBV" stands for Quanbeck-Bushak Volume; Mike Quanbeck is a technician and trader who introduced me to screening for stocks with 50-day average volume of more than 1 million shares, as well as volume read-

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FIGURE 2 QBV50 LINES

The QBV50 lines hug the price action more closely than the QBV150 lines, highlighting the shorter-term support and resistance.

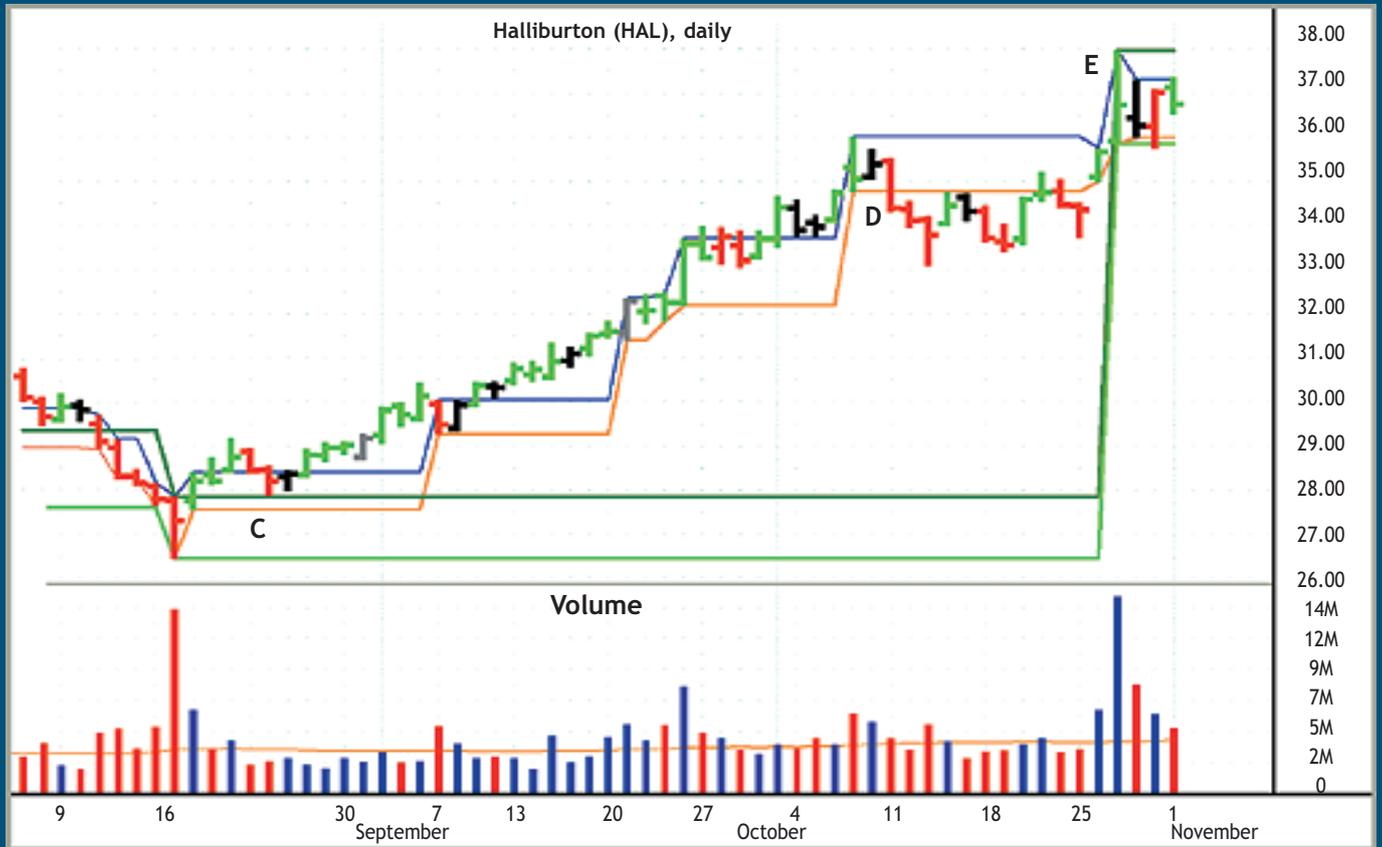
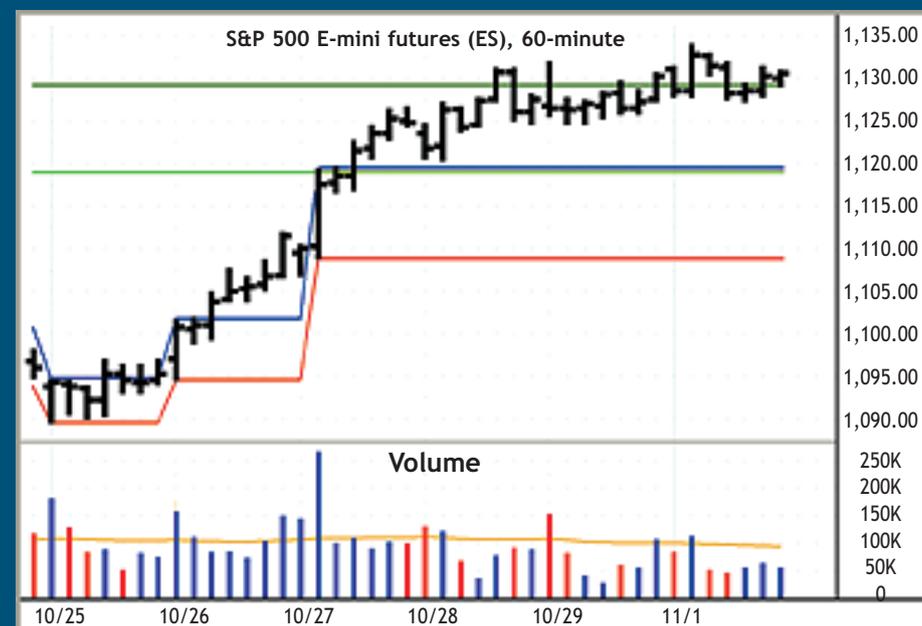


FIGURE 3 S&P 500 E-MINI FUTURES

Price makes higher highs above the QBV50 upper channel line and does not trade below the lower line, indicating a strong uptrend. In the latter half of the chart, the market pushes into the QBV150 channel.



ings 50 percent above the average volume.) In terms of daily bars, the volume thresholds can be expressed as:

$$QBV150 = V_t > \text{avg}(\text{volume}, 50) + 1.5 * (\text{avg}(\text{volume}, 50))$$

$$QBV50 = V_t > \text{avg}(\text{volume}, 50) + .5 * (\text{avg}(\text{volume}, 50))$$

Where:

V_t is today's volume,
 $\text{avg}(\text{volume}, 50)$ = 50-day average volume

These lines are overlaid on price and represent support and resistance levels that help confirm price trends.

Analyzing the QBV150 line

The QBV150 threshold is drawn as a set of "channel lines": Whenever a bar occurs with a volume of 150 percent more than the average volume over the past 50 days, a dark green horizontal line is drawn on p. 58

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FIGURE 4 LONG TRADE ENTRY

A long trade is triggered when price pushes above the first green bar that closes above the high of the most recent QBV150 bar (the "Recognized Bar").

the high of that bar (the upper channel line) and a light green line is drawn from the low of the bar (the lower channel line). These lines remain in place until the next 150-percent day occurs.

Figure 1 (p. 39) shows how to identify a breakout, a continuation and a reversal with the QBV150 line. During the trend phase in section A, price moved above the upper channel (dark green) line two times, signaling an uptrend, and never dropped below the light green (lower channel) line. This series of rising support levels confirmed the uptrend: Volume progressively increased as the price trend continued.

In section B, the upper and lower channel lines acted as support levels. Each time the market dipped into the horizontal channel, buyers came in

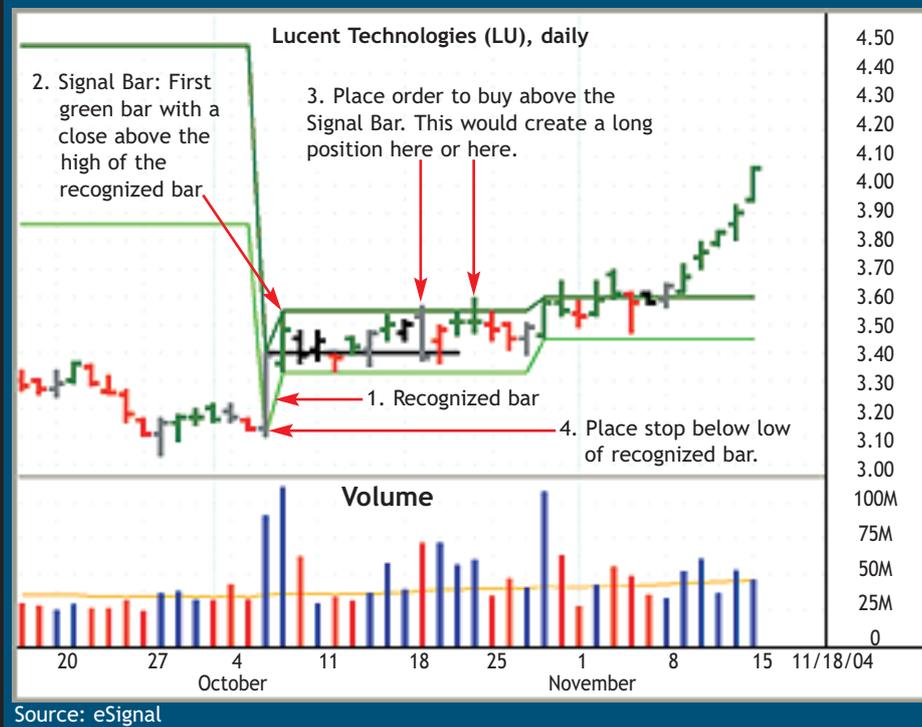


FIGURE 5 TRADE MANAGEMENT

The initial stop is placed below the low of the Recognized Bar. Partial profits are taken at different reward/risk levels while tightening the stop to reduce risk.

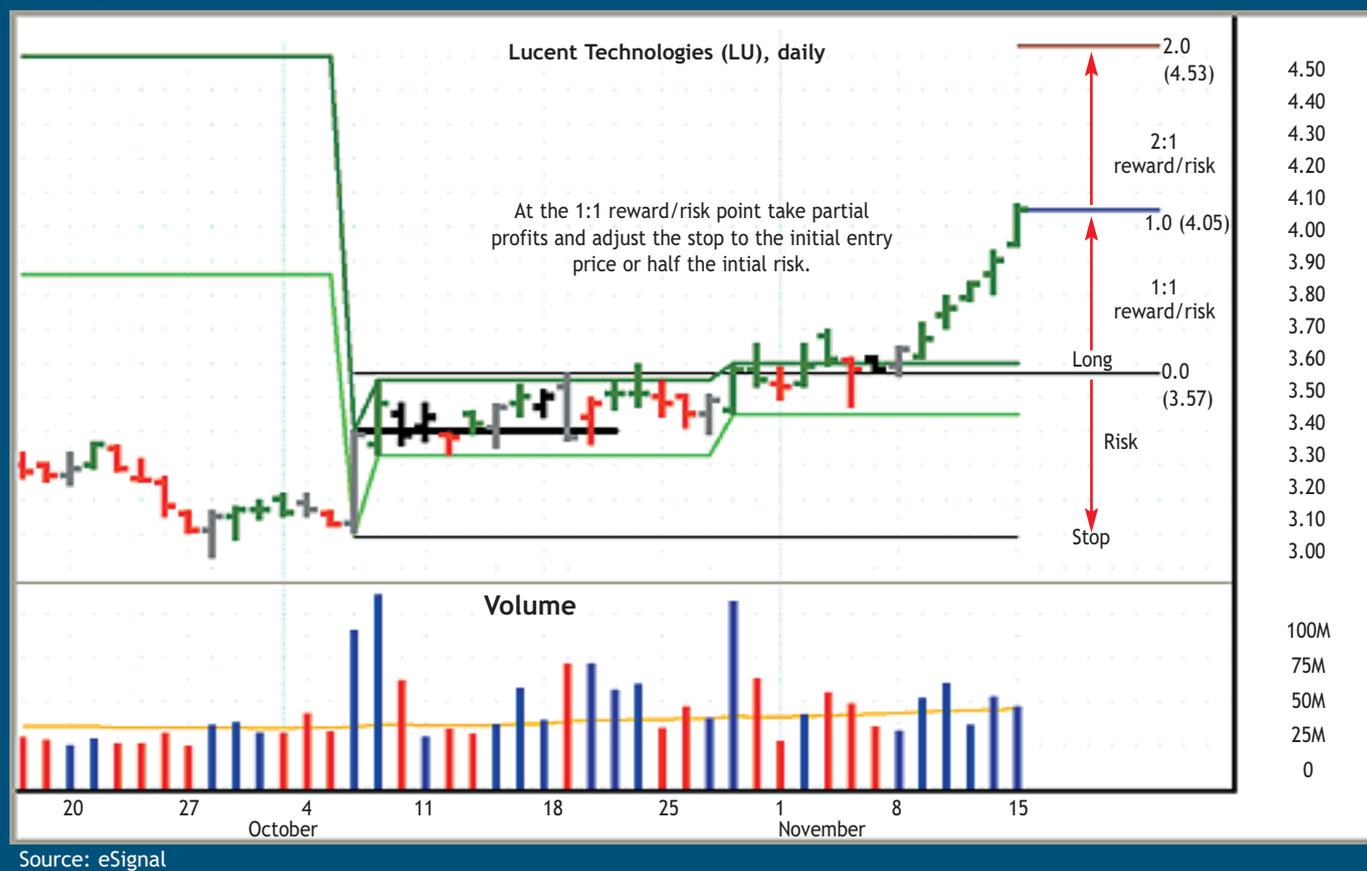
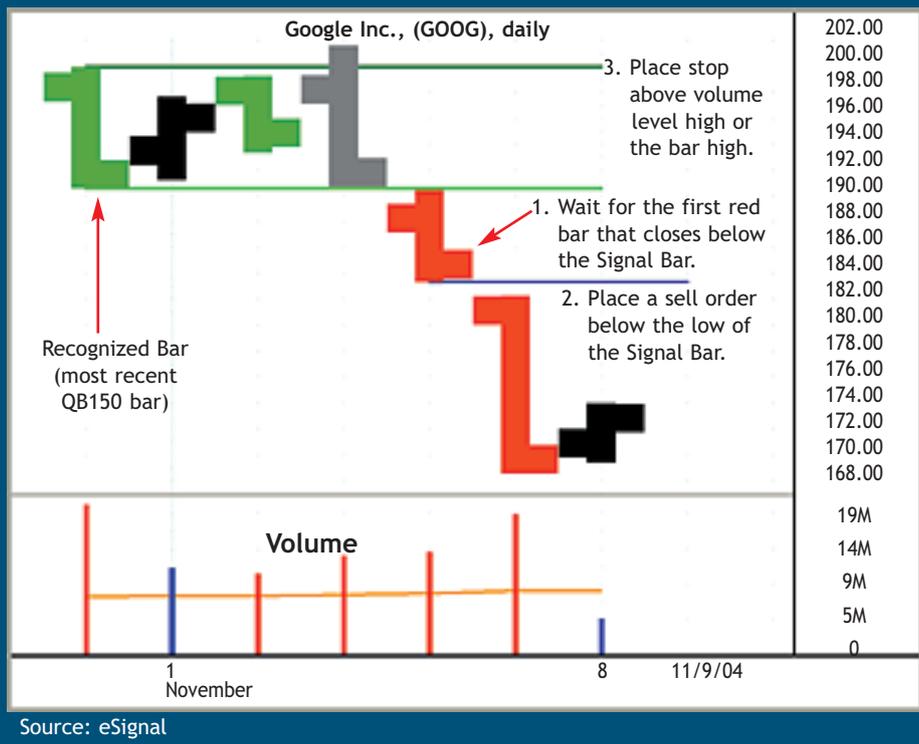


FIGURE 6 SHORT TRADE

A short trade is triggered five bars after the most recent QBV150 bar. The initial stop would be placed above the high of the Recognized Bar.



and supported prices. Price once dropped below the lower channel line on an intraday basis, but did not close below it.

The first bar of section C (mid-August) raises the question: What ends a correction, the first (smartest) buyer or the last seller? Price broke down below the existing lower channel line on heavy volume, signaling a downtrend. However, the downtrend signal was reversed the next day when the price moved back above the upper channel line. This suggested the sell-off was a case of the last sellers selling *and* smart buyers entering the market. Four days after this initial rise price tested the upper channel line, after which buyers came in again and the stock resumed its advance.

Shorter-term focus: The QBU50 threshold

Figure 2 (p. 40) isolates the move from C to D from Figure 1 and includes the QBU50 channel, which consists of a blue line extending from the high of a bar with volume 50 percent greater than the 50-day average volume and a red line extending from its low. These lines stay intact until the next 50 percent greater-than-average volume bar occurs.

In section C, the QBU50 channel stair-stepped higher until the market broke short-term support at point D, at which point the QBU50 channel acted as short-term resistance until the stock rallied to new highs with high volume and the QBU50 channel moved to a higher level again (point E).

Notice the individual price bars are color-coded. Bars with higher highs and higher lows than their preceding bars are green (indicating buying behavior) and bars with lower lows and lower highs than their preceding bars are red (indicating selling behavior).

For example, at the heavy volume area at point C, buyers have the biggest "vote," as indicated by the green bars above the QBU150 upper channel line. Green bars and rising QBU50 and QBU150 levels reflect a strongly uptrending market.

Figure 3 (p. 40) is an hourly chart of the E-mini S&P futures (ES). The market makes higher highs above the QBU50 upper channel line and does not trade below the lower line, highlighting the uptrend's strength.

A note on futures: This type of volume analysis can be applied to futures markets, but you must take into account contract rollovers and expirations for daily and weekly volume analysis. These events create misleading volume surges and declines that will distort this kind of analysis. Using continuous futures data (which creates a consistent unbroken price series of over multiple contract months) instead of individual

contract data addresses this problem.

Trading the channels

Figure 4 illustrates how this analysis can be used to trade from the long side. First, we need to establish some definitions:

1. Recognized Bar: The most recent QBU150 bar.
2. Signal Bar: The first green bar (one with a higher high and higher low) that closes above the high of the Recognized Bar.
3. Trade entry: Go long on a buy-stop above the high of the Signal Bar.

In Figure 4, Bar 1 is the Recognized Bar. Bar 2 is the Signal Bar — the first green bar that closes above the high of the Recognized Bar.

At this point you would place a buy-stop order above the high of the Signal Bar. Once a trade is triggered, place a stop below the true low of the Recognized Bar, which is the Recognized Bar's low or the close preceding the Recognized Bar, whichever is lower.

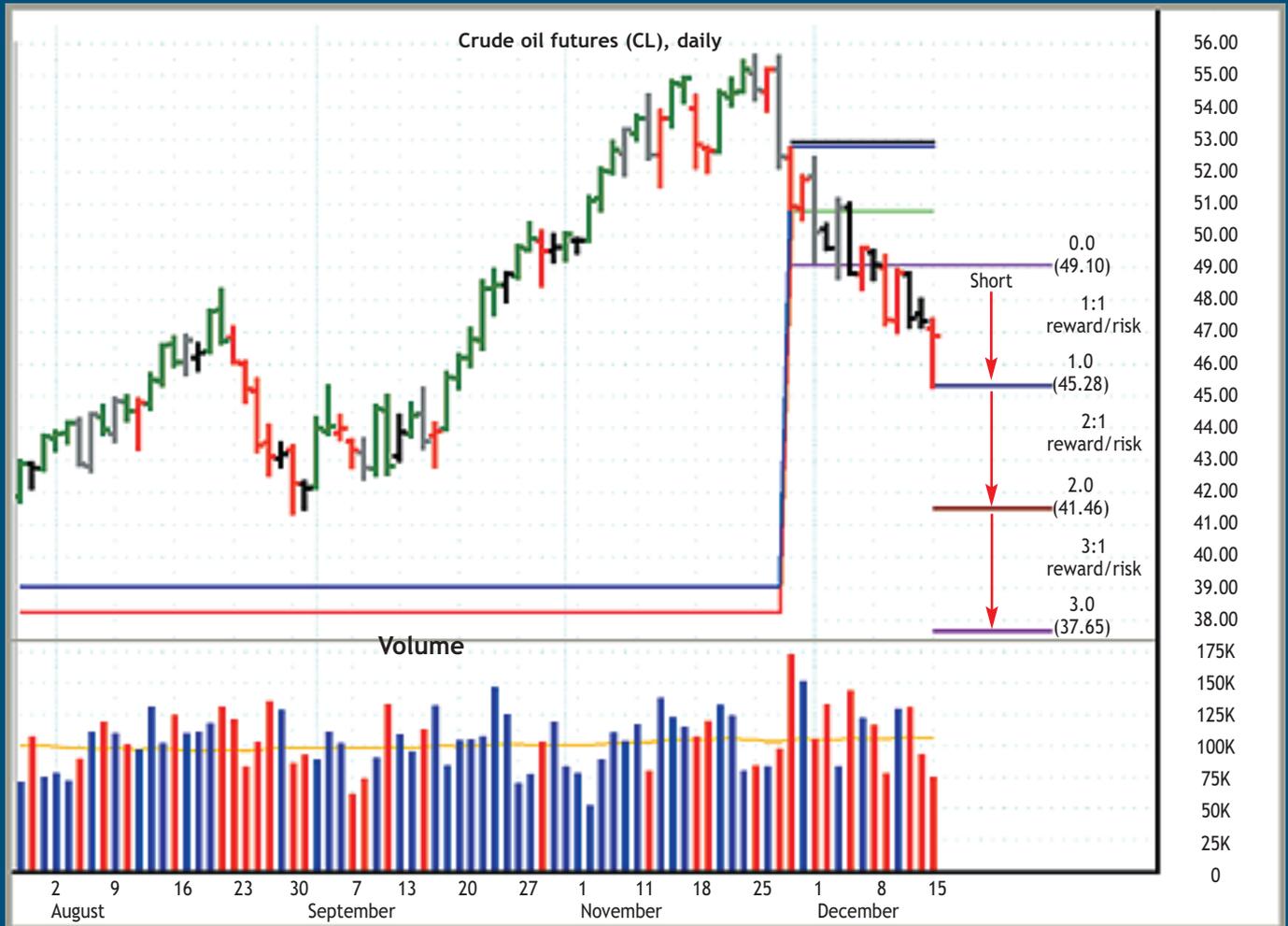
Trade management

Figure 5 illustrates how a trade is managed. When the trade has generated a profit equal to the initial risk (the 1:1 reward/risk level), you can take partial profits and adjust the stop to the initial entry, which puts you in a risk-free trade. Alternately, the

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FIGURE 7 TRADING SHORTER TERM WITH THE QBV50 LINES

The same trading rules used with QBV150 lines can be used to trigger trades with the shorter-term QBV50 lines. In this case, a short trade is triggered in crude oil.



Source: eSignal

stop can be moved to half the initial risk. The next profit-taking levels are at the 2:1 and 3:1 reward/risk levels.

Figure 6 (p. 59) shows an example of a short trade. The long-side definitions and trading rules are simply reversed:

1. Recognized Bar: The most recent QBV150 bar.
2. Signal Bar: The first red bar (one with a lower high and lower low) that closes below the low of the Recognized Bar.
3. Trade entry: Go short on a sell-stop below the low of the Signal Bar.

In Figure 6, the first bar displayed is the most recent QBV150 bar (the Recognized Bar). The bar four days later, when price closes below the low of the Recognized Bar, is the Signal Bar. The sell-side strategy goes short one bar later on a sell stop below the low of the Signal Bar.

If you want to be more aggressive, you can use the shorter-term QBV50 channels to trigger trades. Figure 7 shows a daily December 2004 crude oil (CLZ04) chart. Applying the previously outlined entry and money management rules, you would short December crude oil below the QBV50 threshold.

Volume and trend

Significant volume levels can set the stage for a trend. An upside breakout following a QBV150 day indicates buyers have accumulated positions and anyone wanting to go long will have to pay up. Similarly, a breakdown below a QBV150 day indicates supply is strong and demand is weak.

The QBV150 and QBV50 can provide initial alerts to important support or resistance levels which you can use with other trading tools to capitalize on trends. 📍

For information on the author see p. 10.