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Using Volume, Differently

Volume Spike Analysis

Just about every trader uses volume. How can you use it?

by Vince Kott, CMT, CAIA

There are many ways to use technical analysis to generate profitable trades with enticing risk/reward ratios. However, the sellers of technical analysis–based products often exaggerate the power of simple technical tools. To succeed as a trader, you must not only apply your methods properly but also use your technical tools in a different way than others do. In this article, you will discover a new method for analyzing volume and how it can be applied to a trading strategy to be used on multiple time frames.

VOLUME

Volume is one of the most important tools in trading. Every type of market participant, whether trader or investor, uses volume. Volume shows how many shares of a stock have been traded in a given period of time. Price bars with high volume are more informative than those with low volume. Many patterns emerge out of volume bars, and many technical tools are also derived from volume.

One important factor in generating a good risk/reward ratio is trading the right stocks. You want to trade stocks that are active. It is generally accepted amid technicians that an increase in volume leads to an increase in volatility.

Filtering your stocks to trade only the ones with a recent increase in volume will help you find better trading candidates. Finding stocks that are about to make large moves is at the essence of a great risk/reward ratio. Once you have found the proper stocks, how do you use volume to evaluate your entries? Let's go over some of the ways traders deal with volume analysis:

- ***Technically derived volume indicators:*** One of the more popular ways of looking at volume is through technically derived volume indicators. A popular one is the on-balance volume (OBV). OBV is a running total of positive and negative volume. You can judge whether volume is flowing into or out of a stock. This indicator appears on your chart in a similar way as the relative strength index (RSI). You can see an example of the OBV applied to a price chart of Intuitive Surgical

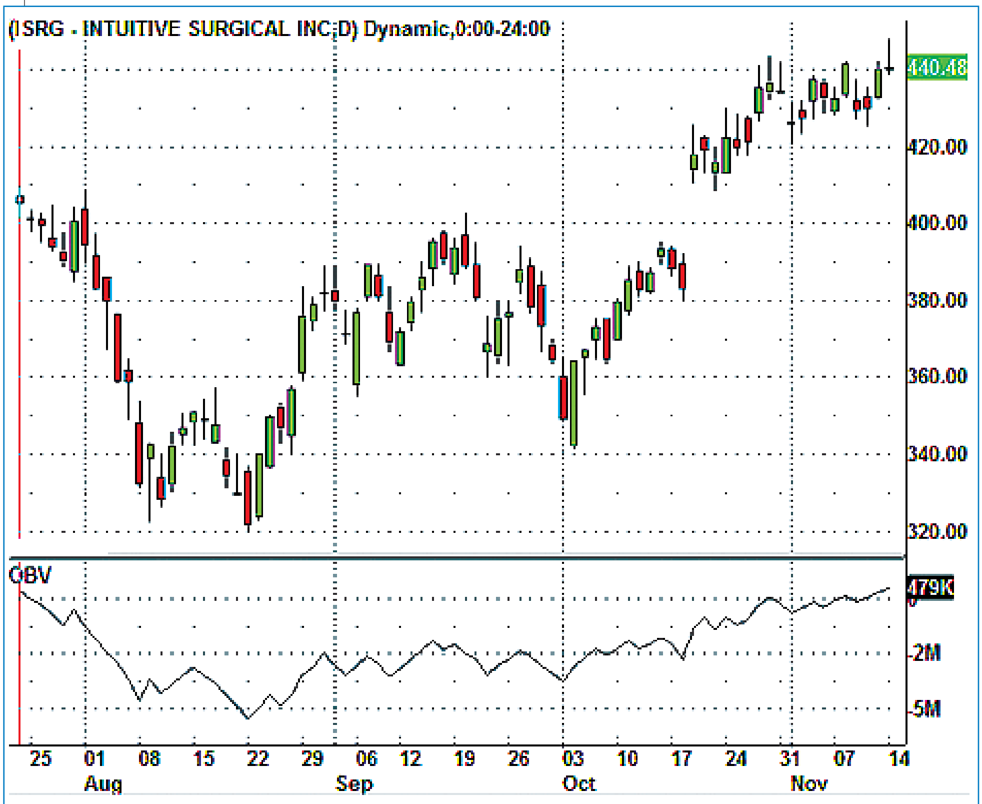

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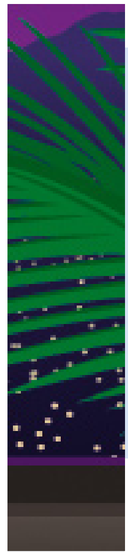
FIGURE 1: TECHNICALLY DERIVED VOLUME INDICATORS. Here you see the OBV applied to the daily chart of Intuitive Surgical Inc. (ISRG). The OBV can be used to identify divergences and anticipate reversals.

FIGURE 2: SIMPLE VOLUME BAR PATTERNS. The simplest way of looking at volume is using a simple volume bar tool. Many traders look for volume spikes in combination with an interesting price pattern. A volume spike on a price chart might look big relative to the previous few, but we do not know how big the spike is relative to the stock's historical volume spikes.



Volume spike analysis is an intuitive way of applying an important factor that contributes to successful trading.

Inc. (ISRG) in Figure 1. One way that traders use OBV is to identify divergences and anticipate reversals. A downfall of this indicator is that large volume spikes can throw off the indicator in the near term.

- ***Simple volume bar patterns:*** The simplest way of looking at volume is using a simple volume bar tool. Many traders look for volume spikes in combination with an interesting price pattern. This can be helpful, but how do you judge the size of the volume bar? A volume spike on a price chart might look big relative to the previous few (Figure 2). However, we do not know how big the spike is relative to the stock's historical volume spikes. If it appears to be the largest volume bar in the last few, what information does that give you? It can be misleading, since you do not know the size of volume spikes that occurred in the past.

- ***Volume bar moving average:*** Another popular method of looking at volume is to add a 20- or 50-period moving average (MA) to the volume

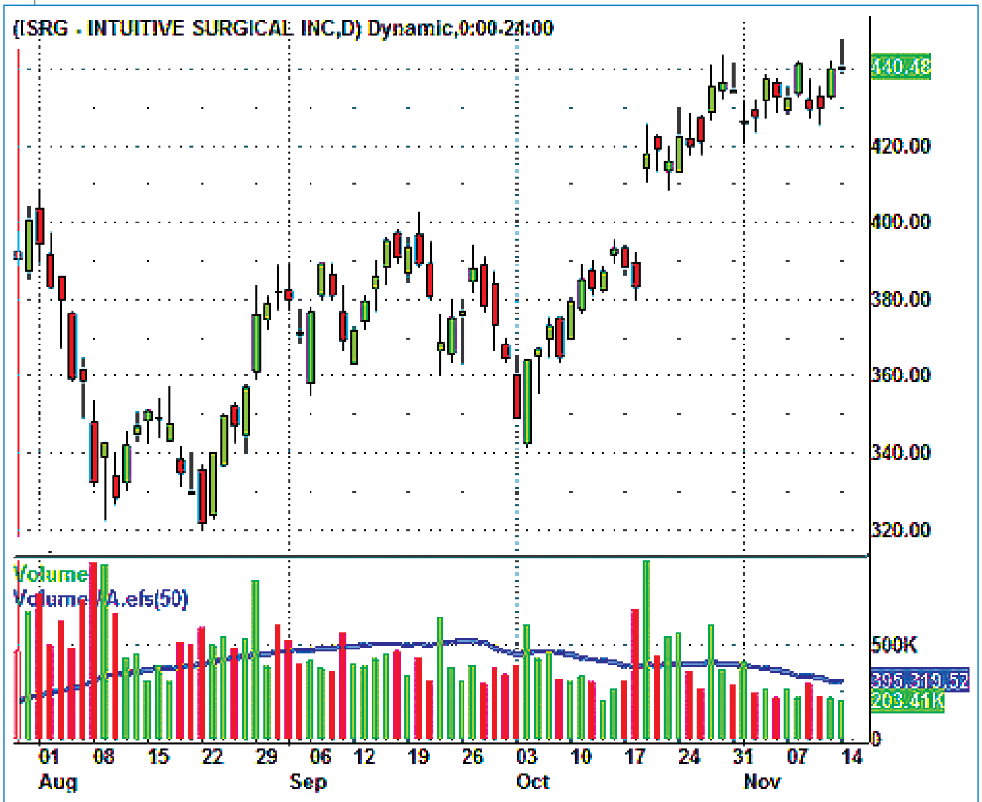


FIGURE 3: VOLUME BAR MOVING AVERAGE. It is easy to recognize if the current volume is running above or below its selected moving average. If the volume is above the moving average, you know you have larger than usual volume.

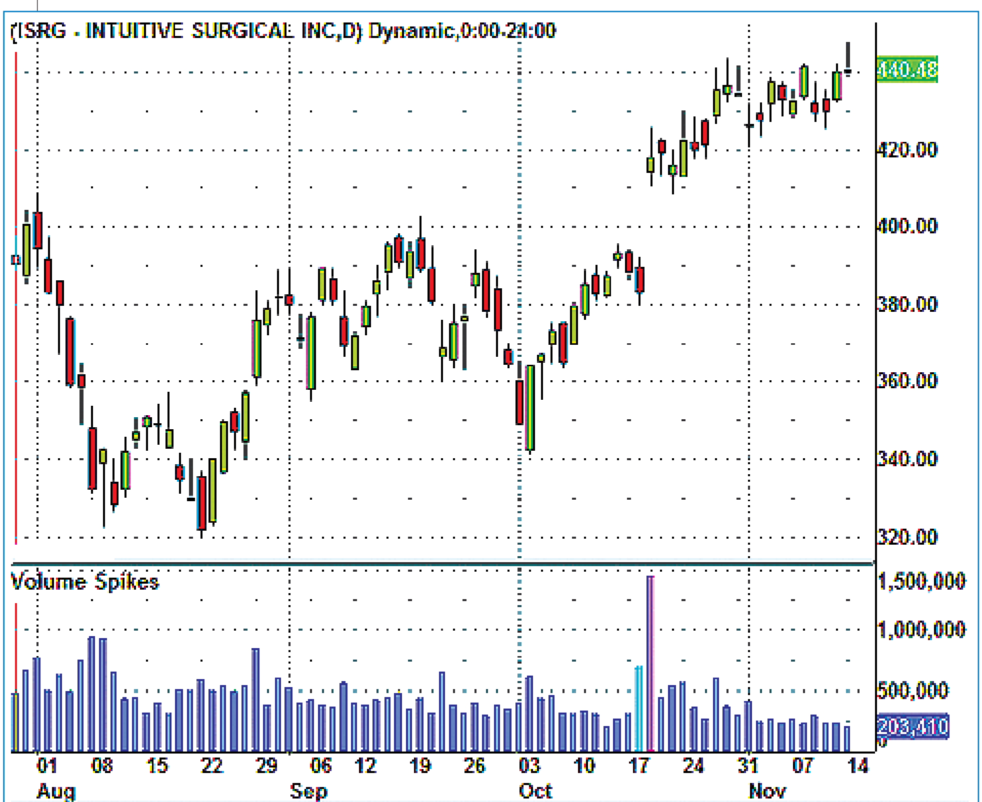


FIGURE 4: VOLUME SPIKE ANALYSIS. Here you can see there is a pink volume bar. That volume bar is the largest in the past 200 periods. On a daily chart it would imply on that trading day, the volume spike was greatest that occurred in the past 200 trading days.

bars. As shown in Figure 3, it is easy to recognize if the current volume is running above or below its selected moving average. If the volume is above the moving average, you know you have larger than usual volume.

For traders with a long holding period, this indicator may be precise enough. However, traders looking for intraday or swing trades might not find this tool to give enough information about the current volume bar.

VOLUME SPIKE ANALYSIS

Often, you need a different approach to have an edge over other technicians; if everybody is using the same tools, it is hard to develop an edge. This method for analyzing volume uses volume spikes relative to previous volume bars. The algorithm of this method can be found in the sidebar, "Volume Spike Analysis."

In the volume spike chart in Figure 4, you can see there is a pink volume bar. That volume bar is the largest in the past 200 periods. On a daily chart it would imply that on that trading day, the volume spike was the greatest that occurred in the past 200 trading days. These volume spikes can be applied on

VOLUME SPIKE ANALYSIS

If the current volume bar is greater than the past *x* volume bars, highlight the volume bar color *y*.

This formula allows you to select different parameters to suit various ways of using it. Here is an example:

Standard volume bar color: Blue

- If the current volume bar is greater than the past 20 volume bars, highlight the volume bar turquoise.
- If the current volume bar is greater than the past 100 volume bars, highlight the volume bar pink.

any time frame, but longer time frames such as weekly, daily, and hourly are recommended.

This type of analysis has value for traders who trade with intraday charts, daily charts, or even weekly charts. The information lies within its simplicity. It can be used by automated traders as well as manual ones; an automated trader can add a criterion that the volume bar at the entry must be greater than the past *x* volume bars. This can easily be backtested to find the optimal number of periods. In contrast, the manual trader can develop patterns to make his trading decisions quicker. Using volume spike analysis, you will be able to tell after a breakout if serious volume has come into the stock.

Two strategies

Volume level strategy: Breakout trading is one of the most popular forms of trading amid traders. It has been around for many years. The problem with buying a stock on breakout usually involves buying a stock that is already overbought. It is difficult to achieve an acceptable risk/reward ratio by simply buying breakouts. With the use of volume spike analysis, you can trade breakouts with a higher probability of success. The strategy evolves around trading price levels where large volume was traded. Using the same parameters as the previous example, if the volume bar is the largest in the past 200 days and the close of the bar is greater than the open, you would want to buy the breakout of the high of that day's bar (Figure 5).

On the short side, if the volume bar is the largest in the past 200 days and the close of the bar is lower than the open, short the break of the low of that day's bar (Figure 6). You can combine these volume levels with other technical tools in order to time your entries.

Volume spike exhaustion strategy: Volume is a great tool to find trend

FIGURE 5: TRADING BREAKOUTS ON THE LONG SIDE. This strategy revolves around trading price levels where large volume was traded. If the volume bar is the largest in the past 200 days and the close of the bar is greater than the open, you would want to buy the breakout of the high of that day's bar.

FIGURE 6: TRADING BREAKOUTS ON THE SHORT SIDE. If the volume bar is the largest in the past 200 days, and the close of the bar is lower than the open, short the break of the low of that day's bar.

reversals. It is difficult to pick a bottom or a top, but some of the most profitable strategies are mean reverting ones. Large moves tend to begin and end with volume spikes. Capitulation is a term often used when speaking about tops and bottoms in stocks. You can use the volume spike analysis to judge the entry of a mean reversion system.

In Figure 7, we see that a large volume spike — the largest in the past 200 15-minute bars — led the stock lower. (Parameters create a pink bar when a volume spike is the largest in the past 200 periods and a turquoise bar when a volume spike is the largest in the past 100 periods.)

FIGURE 7: VOLUME SPIKE EXHAUSTION STRATEGY. Here you see that a large volume spike, the largest in the past 200 15-minute bars, led the stock lower.

FIGURE 8: IMPLEMENTING VOLUME INTO CANDLESTICKS. Here the candlestick color changes depending on the volume bar. If the volume bar is greater than the set parameter, then the candlestick will change colors. Note how the price bars change on days with large volume spikes.

Other ways to use volume spike analysis: There are many other ways you can use volume spike analysis. After entering a position, you can use volume spikes for confirmation of volume coming into a stock. Automated traders can add a volume filter for volume spikes in order to improve the risk to reward ratio of their black boxes, while manual traders can take volume spike analysis by implementing volume in their candlesticks.

As seen in Figure 8, the candlestick color changes depending on the volume bar. If the volume bar is greater than the set parameter, then the candlestick will change colors. The price bars change on days with large volume spikes. Since many people use candlesticks to get a good read on trading price action, incorporating volume spike analysis into your chart adds a second dimension.

SIMPLE AND INTUITIVE

Volume spike analysis simplifies the analysis process. It is an intuitive way of applying an important factor, and this contributes to trading success. There is no holy grail in the trading business, but sometimes simple concepts and a different perspective can make a big difference.

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