

# FIND THE SLAM DUNKS: COMBINE VSA WITH TECHNICAL ANALYSIS

November 2006  
By Todd Krueger

In any competitive sports game there must be a specific set of boundaries for the game to make any sense.

This actually is similar to the concept of a trend channel, also known as parallel trend lines, in trading. Let's use the game of basketball as an example. The game is played on a basketball court (playing field) that has set boundaries that allow the referee to see when each team is in the field of play or outside the playing field (out-of-bounds). If a team goes out-of-bounds the other team gets the ball. The basketball court also has an area around the basket called "the paint." This is where the highest probability shots are executed by the individual players. The dunk is the highest probability shot that can be taken and this always happens inside the paint, which is the high-probability scoring zone in the game of basketball. We are now going to apply this same approach to a price chart.

When a trend channel is drawn correctly, here is the information a trader can find: The so-called playing field reveals:

- The likely market trend into the immediate future,
- The likely future support and supply lines,
- Projected likely intermediate market tops and bottoms,
- Projected future overbought and oversold price levels,
- Future high probability buy and sell zones.

## PUTTING THE BALL IN PLAY

Let's look at an example. Figure 1 reveals a continuous weekly chart of the E-mini S&P that starts in October 2004 and goes through the middle of September 2006. See the upward sloping playing field? We expect the price direction to continue higher into the near-term future unless a tremendous amount of supply comes into the market. The shaded circles represent the price bars used to form this channel. The bar that the vertical red cursor is on is the start of the playing field for this example. The lower blue line is the "support" line with the upper blue line known as the "supply" line.

When price approaches the upper supply line we expect supply to come into the market and hold the price within the boundary. However, if price exceeds this supply line the market is technically in an overbought condition and is likely to fall back into the playing field. When price does exceed the supply line this is a point where many breakout traders like to establish long positions, which, in turn, opens a window of opportunity to the professional trader to dump supply onto the market by selling positions bought at much lower prices. This supply then pushes the market back down into the playing field. We will take a closer look at the mechanics of this later. The same is also true in reverse; when the price approaches the lower support line, we expect demand to come in and hold that price level, but if the support line is broken the market is technically oversold and we expect price to move back up into the playing field. This is similar to the basketball analogy used previously; when the ball goes out-of-bounds, the other team gets the ball. So in this chart example we can see that the market bears take the price out-of-bounds near the right edge of the chart (technically

oversold), demand comes into the market and the market bulls then take control; they are still in control as this article is written.

## HOW THIS HELPS

All of a sudden, we can now see into the future and see where intermediate turning points are likely to happen! But let's remember back to our basketball example to where the high-probability shots occur...in the paint! Since the market is not going to gyrate perfectly in between our support and supply line, we need to find that high-probability zone akin to "the paint" in order to initiate trades from there. We now need to look at the dashed lines that separate the playing field into quadrants. The area in between the upper dashed line and the supply line is the area on the playing field similar to the paint in basketball terms; this is known as the "sell zone." The area in between the lower dashed line and the support line is known as the "buy zone." These buy and sell zones are where the highest probability/lowest risk trades exist because it is there that we truly start trading like professionals, buying weakness at the bottom areas of the playing field and selling strength at the top areas of the playing field. This is a terrific approach used all by itself but when we combine it with volume spread analysis, a methodology which identifies supply and demand from the "smart money," we can visually confirm the supply coming into the market at the sell zone areas (or also the overbought areas) and the demand coming into the market at the buy zone areas (or also the oversold areas), dramatically increase the odds of a successful trade!

## DRAWING THE PLAYING FIELD

The first step that we need to take is to look at the chart and identify the obvious trend. Here are some general guidelines for drawing the playing field:

- 1) In an upward sloping playing field we need to connect two price lows and an intermediate high.
- 2) In a downward sloping playing field we need to connect two price highs and the intermediate low.
- 3) The more price touches that occur on the channel lines, the stronger that level is for support/resistance.
- 4) The steeper the slope of the channel, the less likely the price is to stay inside that playing field for any length of time.
- 5) The narrower the channel, the less likely the price is to stay inside that playing field for any length of time (this generally occurs when not enough price bars are used to draw the playing field).
- 6) The longer the timeframe, the more likely the price is to stay inside that playing field (i.e. a weekly chart will generally hold more consistently than a daily and a daily will hold more consistently than a 30-minute, etc.).

## WHAT IS VOLUME SPREAD ANALYSIS?

Volume Spread Analysis (VSA) is a methodology that seeks to establish the cause of price movements, and from the cause establish the probable future direction of price movement. This cause originates from an imbalance between supply and demand in the market, which is created by the trading activity of "smart money." By

analyzing the relationship of three variables on any price chart, VSA can identify when "smart money" (professional operators) is actively accumulating positions (demand) or in the process of distributing their positions (supply).

**FIGURE 1: Continuous Weekly Chart of the E-mini S&P**



Source: TradeGuider Systems

## DOES VOLUME WORK IN FX?

Many retail FX traders erroneously believe that volume cannot be utilized in the forex arena. Since there is no centralized exchange for the FX market, there is no way to receive any information on traded volume and therefore the vast majority of FX traders don't believe that they can use any form of volume analysis in this particular market. To omit the analysis of volume, in any market, is a critical mistake because this is the only technique that can be used to uncover the activity of the professional operators! Since we cannot receive traded volume figures we simply substitute this with activity volume (tick based volume).

Tick based volume is the information being used to show the volume histogram for our case study, seen in Figure 2. Please refer to the vertical red cursor on the chart to reference where the playing field became active. Remember one of our earlier rules: an upward sloping channel must connect two lows and an intermediate high. This became our active playing field on September 4, 2006 and the chart is still active to the right edge on September 14, 2006. This is ten consecutive trading days that the price has respected these boundaries and provided many high-probability/low-risk trades (shown with shaded circles). We could choose any one of these areas to study more closely, but we will look specifically at the area near the right edge of the chart where price exceeded our playing field into the overbought area, this occurred on September 12, 2006.

**FIGURE 2: 180-Minute U.S. Dollars/Swiss Franc Chart**



Source: TradeGuider Systems

We can see that just a few bars before price moved into the overbought area, labeled bar 1, we see a very high volume up bar on an ultra-wide price spread closing off the high of the bar. This puts the closing price just below the sell zone and from a VSA standpoint alerts us that there is potential supply coming into the market from the professional operators. We now need to watch the following bars to see how the market reacts to this potential supply. We also need to start looking more closely at lower timeframe charts to confirm this.

Why is there potential supply coming in from the professionals? Remember back to a previous statement that true weakness occurs on up bars. In order to sell all or part of the sizable positions that the professional operator trades with, they must sell when the public is buying. If they did not sell into the public's buying, the price would quickly collapse and erode the profits achieved from buying low and selling high. The high volume shows that the public is likely involved and buying on this bar. Now, it should be obvious, that not

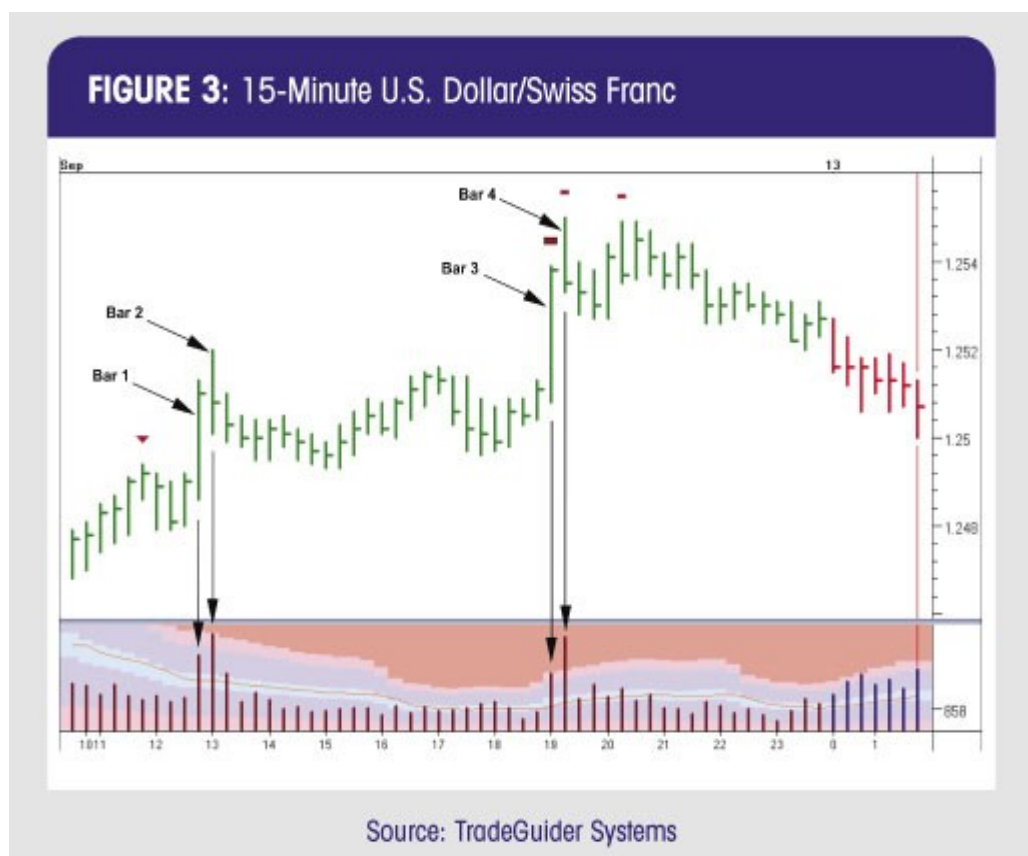
every high volume bar that a trader views is going to have major significance, to discern the difference requires experience with the VSA methodology. On bar 2, we see the price come up and touch the supply line and then close back down into the middle of the spread, this tends to confirm that there was selling on the previous bar.

## WHAT DOES THE SMART MONEY DO?

The question that traders need to ask themselves on this bar is: If the previous bar contained very bullish buying, how could the next bar be reluctant to continue going up and have the price close in the middle of the spread? The answer is then categorically given to us on bar 3; here we see a narrow spread, up bar, with very little volume (activity). This confirms that the "smart money" is withdrawing from the up move, this is what VSA terms as a "no demand" bar and it shows that the professional operators are not interested in participating in the market to the upside.

## DRILL DOWN

After seeing the weakness appear on the higher timeframe, we need to analyze a lower timeframe chart to further confirm the weakness and increase the precision of our short entry. Looking at the 15-minute chart (Figure 3) allows us to zoom in on the price action after it reaches the critical sell zone area of the longer timeframe playing field. Since we are zooming into the 15-minute chart, after viewing the 180-minute chart, it is important to point out that bars 1 and 2 on the 15-minute chart are part of the bar that we labeled 2 on the 180-minute chart. Again, here on bar 1, we can see an up bar on high volume with an ultra-wide spread, with the next bar (bar 2) going higher but closing below bar 1 on ultra-high volume, strong markets don't behave like this! This also further confirms the selling on bar 2 of the 180-minute chart (Figure 2). We then see another up bar (bar 3) with an ultra-wide spread, on ultra-high volume. This is followed by a bar (bar 4) that looks very similar to bar 2 on this chart; this bar has a higher high, but closes below bar 3 on ultra-high volume. This bar is another classic sign of weakness.



We have entered into a price area on the chart where we would expect to find supply entering the market based on the playing field. We have then confirmed the supply entering the market from the professional operators on multiple timeframes; this is now an ideal place to establish a short position or liquidate a current long position. It is safe to take a short trade from either bar 2 or bar 4 on our 15-minute chart. As a trader, we never want to try to catch the exact top or bottom in a market, this will prove to be an elusive goal and lead to great frustration. Instead, we want to take high-probability trades when they are in the correct area of the playing field and price action is confirmed to be doing as we expect it; from there, we just need to use proper stop placement and trade alongside the “smart money.”

## SYNERGY: TRADE LIKE THE BIG BOYS

Synergy is the phenomenon in which two or more influences acting together create an effect greater than that predicted by knowing only the separate effects of the individual influences. By combining an approach that tells the trader where the market should encounter support and resistance areas (playing field) with a second approach that

confirms the demand/supply entering the market from the professional operators (VSA), allows us to combine this information on our price chart and identify the very highest probability trades in any market and/or timeframe. Using this specific analysis approach, the retail trader will be trading just like a professional trader, buying what appears to the uninformed to be price weakness, and selling what appears to the uninformed to be price strength.



# Rediscover the Lost Art of Chart Reading

## USING VOLUME SPREAD ANALYSIS

by: *TODD KRUEGER*

Most traders are aware of the two widely known approaches used to analyze a market, fundamental analysis and technical analysis. Many different methods can be used in each approach, but generally speaking fundamental analysis is concerned with the question of why something in the market will happen, and technical analysis attempts to answer the question of when something will happen.

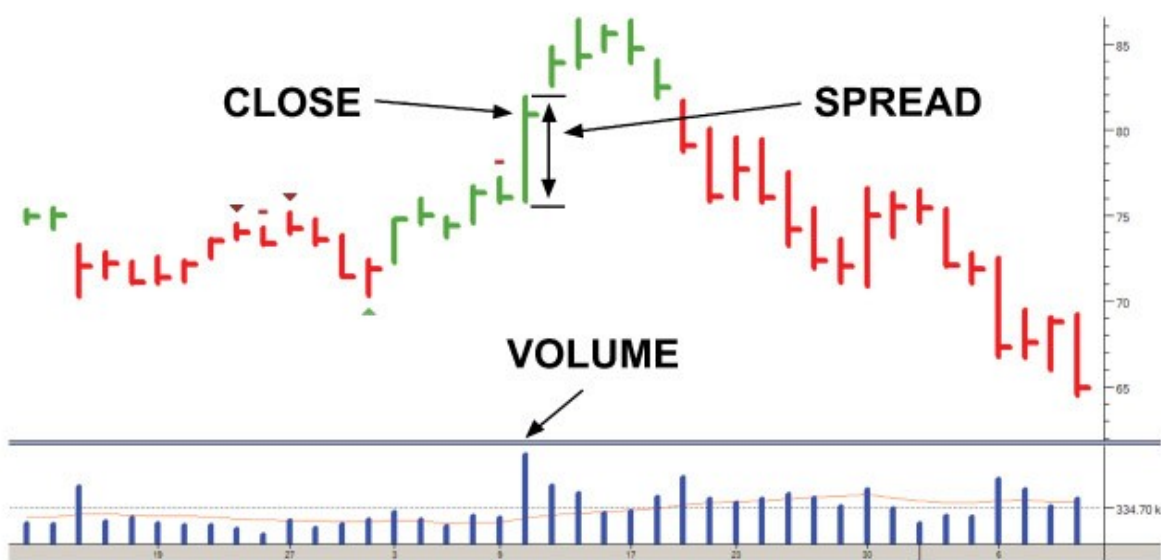
There is, however, a third approach to analyzing a market. It combines the best of both fundamental and technical analysis into a singular approach that answers both questions of “why” and “when” simultaneously; this methodology is called volume spread analysis. The focus of this article is to introduce this methodology to the trading community, to outline its history, to define the markets and timeframes it works in, and to describe why it works so well.

## WHAT IS VOLUME SPREAD ANALYSIS?

Volume spread analysis (VSA) seeks to establish the cause of price movements. The “cause” is quite simply the imbalance between supply and demand in the market, which is created by the activity of professional operators (smart money). Who are these professional operators? In any business where there is money involved and profits to make, there are professionals. There are professional car dealers, diamond merchants and art dealers as well as many others in unrelated industries. All of these professionals have one thing in mind; they need to make a profit from a price difference to stay in business. The financial markets are no different. Doctors are collectively known as professionals, but they specialize in certain areas of medicine; the financial markets have professionals that specialize in certain instruments as well: stocks, grains, forex, etc.

The activity of these professional operators, and more important, their true intentions, are clearly shown on a price chart if the trader knows how to read them. VSA looks at the interrelationship between three variables on the chart in order to determine the balance of supply and demand as well as the probable near term direction of the market. These variables are the amount of volume on a price bar, the price spread or range of that bar (do not confuse this with the bid/ask spread), and the closing price on the spread of that bar (see Figure 1).

**FIGURE 1:** Components of Volume Spread Analysis



Source: TradeGuider Systems

With these three pieces of information a properly trained trader will clearly see if the market is in one of four market phases: accumulation (think of it as professional buying at wholesale prices), mark-up, distribution (professional selling at retail prices) or mark-down. The significance and importance of volume appears little understood by most non-professional traders. Perhaps this is because there is very little information and limited teaching available on this vital part of chart analysis. To interpret a price chart without volume is similar to buying an automobile without a gasoline tank. For the correct analysis of volume, one needs to realize that the recorded volume information contains only half of the meaning required to arrive at a correct analysis. The other half of the meaning is found in the price spread (range).

Volume always indicates the amount of activity going on, and the corresponding price spread shows the price movement on that volume. Some technical indicators attempt to combine volume and price movements together, but this approach has its limitations; at times the market will go up on high volume, but it can do exactly the same thing on low volume. Prices can suddenly go sideways, or even fall off, on exactly the same volume! So there are obviously other factors at work on a price chart. One is the law of supply and demand. This is what VSA identifies so clearly on a chart: An imbalance of supply and the market has to fall; an imbalance of demand and the market has to rise.

## A LONG AND PROVEN PEDIGREE

VSA is the improvement upon the original teaching of Richard D. Wyckoff, who started as a stock runner at the age of 15 in 1888. By 1911, Wyckoff was publishing his weekly forecasts, and at the height of his popularity, it was rumored that he had over 200,000 subscribers. In 1931 he published his correspondence course, which is still available today. In fact, the Wyckoff method is offered as part of the graduate level curriculum at the Golden Gate University in San Francisco. Wyckoff is said to have disagreed with market analysts who traded from chart formations that would signal whether to buy or sell. He estimated



that mechanical or mathematical analysis techniques had no chance of competing with good training and practiced judgment.

Tom Williams, a former syndicate trader (professional operator in the stock market) for 15 years in the 1960s-1970s, enhanced the work started by Wyckoff. Williams further developed the importance of the price spread and its relationship to both the volume and the close. Williams was in a unique situation that allowed him to develop his methodology. He was able to monitor the effects of the syndicate's trading activity on the price chart. As a result, he was able to discern which resulting price gyrations derived from the syndicate's action on the various stocks they were buying and selling. In 1993, Williams made his work available to the public when he published his methodology in a book titled *Master the Markets*.

## A UNIVERSAL APPROACH

Just as Wyckoff's approach was universal in its application to all markets, the same is true of VSA. It works in all markets and in all timeframes, as long as the trader can get a volume histogram on the chart. In some markets this will be actual traded volume, as it is with individual stocks, yet in other markets the trader will need access to tick-based volume, as is the case with forex. Because the forex market does not trade from a centralized exchange, true traded volume figures are not available, but this does not mean that the trader cannot analyze volume in the forex market, it simply requires that tick-based volume be used instead.

Think of volume as the amount of activity on each individual bar. If there is a lot of activity on that price bar, then the trader objectively knows that the professional operator is heavily involved; if there is little activity then the professional is withdrawing from the move. Each scenario can have implications to the supply/demand balance on the chart and can help the trader determine the direction the market is likely to move in the short to medium term. A forex example will be shown later in this article. Just as VSA is a universal approach to all markets, this methodology works equally well in all time frames. It makes no difference if the trader is looking at a 3-minute chart, or if daily or weekly charts are being analyzed—the principles involved remain the same. Obviously, if supply is present on a 3-minute chart, the resulting downward move will be of a lesser magnitude than supply showing itself on a weekly chart, but the result of excess supply on a chart is the same in both instances; if there is too much supply, then the market must fall.

## WHY IT WORKS

Every market moves on supply and demand: Supply from professional operators and demand from professional operators. If there is more buying than selling then the market will move up. If there is more selling than buying, the market will move down. Before anyone gets the impression that the markets are this easy to read, however, there is much more going on in the background than this simple logic. This is the important part of which most non-professional traders are unaware! The underlying principle stated above is correct; however, supply and demand actually work in the markets quite differently. For a market to trend up, there must be more buying than selling, but the buying is not the most important part of the equation as the price rises. For a true uptrend to take place, there has to be an absence of major selling (supply) hitting the market. Since there is no substantial selling to stop the up move, the market can continue up.

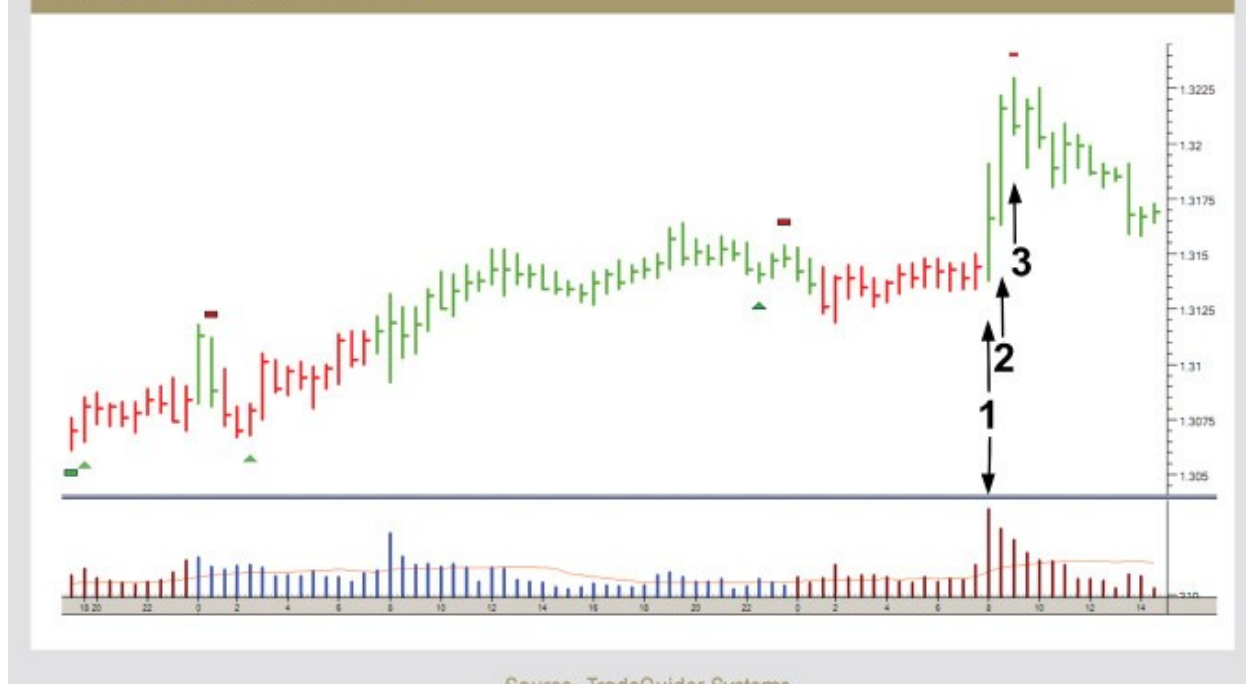
What most traders are completely unaware of is that the substantial buying has already

taken place at lower levels as part of the accumulation phase. And the substantial buying from the professional operators actually appears on the chart as a down bar/s with a volume spike. VSA teaches that strength in a market is shown on down bars and weakness is shown on up bars. This is the opposite of what most traders think they know as the truth of the market. For a true downtrend to occur, there must be a lack of substantial buying (demand) to support the price. The only traders that can provide this level of buying are the professional operators, but they have sold at higher price levels earlier on the chart during the distribution phase of the market. The professional selling is shown on the price chart during an up bar/s with a volume spike, weakness appears on up bars. Since there is now very little buying occurring, the market continues to fall until the mark down phase is over. The professional operator buys into the selling that is almost always created by the release of bad news; this bad news will encourage the mass public (herd) to sell (almost always for a loss). This professional buying happens on down bars. This activity has been going on for well over 100 years, yet most retail traders have remained uninformed about it—until now.

## VSA AT WORK

Let's now look at a clear example of supply entering a market as the professional operators are selling into a rising market. Please see Figure 2 as we look at the U.S. dollar/Swiss franc spot forex market on a 30-minute price chart. This market was in the mark-up phase until the bar labeled 1; notice the massive volume spike as an ultra wide spread, up bar, appears with the price closing in the middle of the bar. This is a telltale sign of professional selling entering the market; a trader must look at this bar and realize that if all the activity shown on the volume histogram represented buying, we could not possibly have the price close on the middle of the bar. Because professional operators trade with very large size, they have to sell into up bars when the herd is buying; this is how they unload their large size onto the unsuspecting public. Many times, these types of bars are created from news reports that appear very bullish to retail traders and invite their participation on the long side of the market. When this occurs, it creates the opportunity for professional operators to systematically sell their holdings and short the market, without driving the price down against their own selling.

**FIGURE 2:** Professional Selling



A properly trained trader understands instantly that when the bar closes in the middle like this, with massive volume, it signifies a transfer of ownership from the professionals to what VSA refers to as “weak holders,” traders that will soon be on the wrong side of the trade. Think of the analogy used earlier in this article; this is the professional operators “selling at retail” (distribution) when earlier they established their positions by “buying at wholesale” (accumulation). On the bar labeled 2, again we have more selling from the professionals as they complete the transfer of ownership to weak hands. The trained trader can see this as the bar labeled 3 is now closing lower, confirming that there was a large block of selling on the previous bar.

## **DON'T BE PART OF THE HERD**

Let's review what just happened on the price chart here. The professional money has sold their holdings to the mass public called the “herd” or “weak holders.” The professionals sold short and the new buyers are locked into a poor position. How can price continue higher when the professional money won't support higher prices and there are no other buyers left to buy? With no buyers left to support the price, the price falls as the chart continues on into the mark down process (see Figure 3). To explain why prices fall in any market, let's refer to a previous statement: “For a true downtrend to occur, there must be a lack of substantial buying (demand) to support the price. The only traders that can provide this level of buying are the professional operators, but they have sold at higher price levels earlier on the chart, during the distribution phase of the market.”

**FIGURE 3:** Market Results after Professional Selling



Source: TradeGlider Systems

When the price falls far enough, the professional operator will now enter the market and buy (at wholesale levels) from the “weak holders,” who are forced to sell at a substantial loss, and the cycle will repeat itself over and over again. This is the way all markets work! Because professional operators specialize in many different markets and many different time frames, this same sequence of events unfold on price charts of all durations. We reviewed a 30-minute chart in this article, but it could just as easily have been a weekly chart. The market we looked at was forex, but volume spread analysis works just as well in stocks, futures and commodities. VSA is a market analysis methodology that alerts the trader to the two most important questions that they must know the answers to in order to trade successfully — why and when. Why markets move is based on the supply and demand from professional operators, and when they move can be expanded upon once the trader has a more thorough understanding of volume spread analysis.

# Frozen in Analysis Paralysis?

## Use Volume to Break Through the Ice

by: Todd Krueger

It's not about quantity, it's about quality. Using more than one indicator may not always be the best solution. As traders, we have a plethora of choices regarding our individual approach to trading the markets.

There are dozens of variables that go into trading, including, but not limited to, the style of trading that we adopt (day trading, swing trading, position trading, options trading), the markets that we trade (stocks, futures or forex), the time frames to trade in (1-minute, 5-minute, 60-minute, daily, weekly, etc.) and the tools we use to make our trading decisions (fundamental analysis, technical analysis and/or volume spread analysis).

### FEELING OVERWHELMED?

With all of these choices to make, it can be very difficult to figure out what is truly important to achieve the goal of successful trading. It is very common for inexperienced traders to feel overwhelmed and succumb to the detrimental "analysis paralysis" syndrome in which they tend to overcomplicate the entire trading process by rationalizing that if one indicator is good, then two must be better and if two are better, then four must be even more accurate in predicting what the market will do next. Unfortunately, this line of thinking leads many traders down a long, frustrating and most often a losing path in their trading careers because they are focused on the wrong areas of the trading spectrum.

I believe that to be a successful trader in today's environment, one needs to master three specific areas: trading psychology, money management and chart reading ability. This article focuses on how to read a chart properly. We will be using a method called volume spread analysis to determine where there is supply or demand from professional money, and we will look at how multiple time frame analysis confirms their activity on the price chart.

### MULTIPLE TIME FRAME ANALYSIS

In my years as a trading educator I have found that most losing traders have a critical glaring weakness in their approach to analyzing a market. The majority of their focus is placed on mathematical technical analysis tools such as moving average convergence divergence (MACD), the relative strength index (RSI) and/or stochastic studies (among many others). All of these types of tools are derivatives of price movement and are lagging indicators. To make matters worse, many of these traders attempt to use these tools in isolation and they completely lose focus on reality; indicators don't move price, price movement moves indicators! Then the nail in the coffin occurs when the trader uses this approach on only one or two time frames (i.e. a 1- and 3-minute chart or a 5- and 15-minute chart).

The problem with this approach is the trader is not focused on why the price is moving in the first place. Price moves occur because there is an imbalance of supply/demand in the marketplace and this imbalance is created from the activity of professional traders. These professionals are very cagey when it comes to disguising their true intentions and hiding their positions from the uninformed retail trader. The average retail trader doesn't understand how to read a chart in order to determine the underlying strength or weakness

in the market. Even for a trained VSA expert, it is nearly impossible to accurately forecast the near-term direction of a market by analyzing a single time frame; there just isn't enough corroborating evidence if we only look at one or two time frames. Think of each singular time frame as a musical note, when we combine multiple time frame's together we go from the market blaring out one note noises, to the market singing us a melody and revealing the message that is so often hidden to the trader who can't read a chart; that message is where the professional traders are positioned. Before we move to our chart examples we must understand the following rules of multiple time frame analysis:

- 1) Each time frame can and will look structurally different from another.
- 2) The smaller time frame will lead the larger time frame.
- 3) The combination of activity on the smaller time frames summed together creates the structure of the larger time frames.`
- 4) The larger the time frame showing strength/weakness the larger the impending move.
- 5) We use the larger time frame to confirm the smaller time frame's message; if there is no corroboration we have no confirmation.

## **PUTTING IT INTO ACTION**

Let's take a look at an example. We will be analyzing the E-mini S&P with the following time frames: 5-minute, 10-minute, 15-minute and 30-minute charts. It is important to note that the individual trader must determine the selection of time frames to be used based on his or her own style of trading; there is no magic formula for the best time frames. A scalper would use a shorter combination of time frames while a swing trader would possibly use higher time frames in their analysis. Another important point is that because of the limit to the number of charts that can be used in this article, the daily chart is not shown, but in reality it must be included in your analysis no matter what other time frames you trade with.

We will start our analysis with the 5-minute chart (see Figure 1). We can see the big six-point, gap-up open of the day session, September 2006 contract (labeled bar 1). The day we are looking at is August 4th, 2006; this was a non-farm payroll report day that came out with lower job growth numbers than expected. The retail trader (general public) read this as being bullish for the market since this lessened the probability that the Federal Reserve would hike interest rates with the upcoming FOMC meeting on August 8th. The media also helped out with this perception as the talking heads were on TV espousing how this should be bullish for the stock market. This is a classic example where the news drives the retail trader into the market and creates a short window of opportunity for the professional money to distribute their long positions to the mass public (the herd).



**FIGURE 1: E-mini S&P 5-minute Chart**



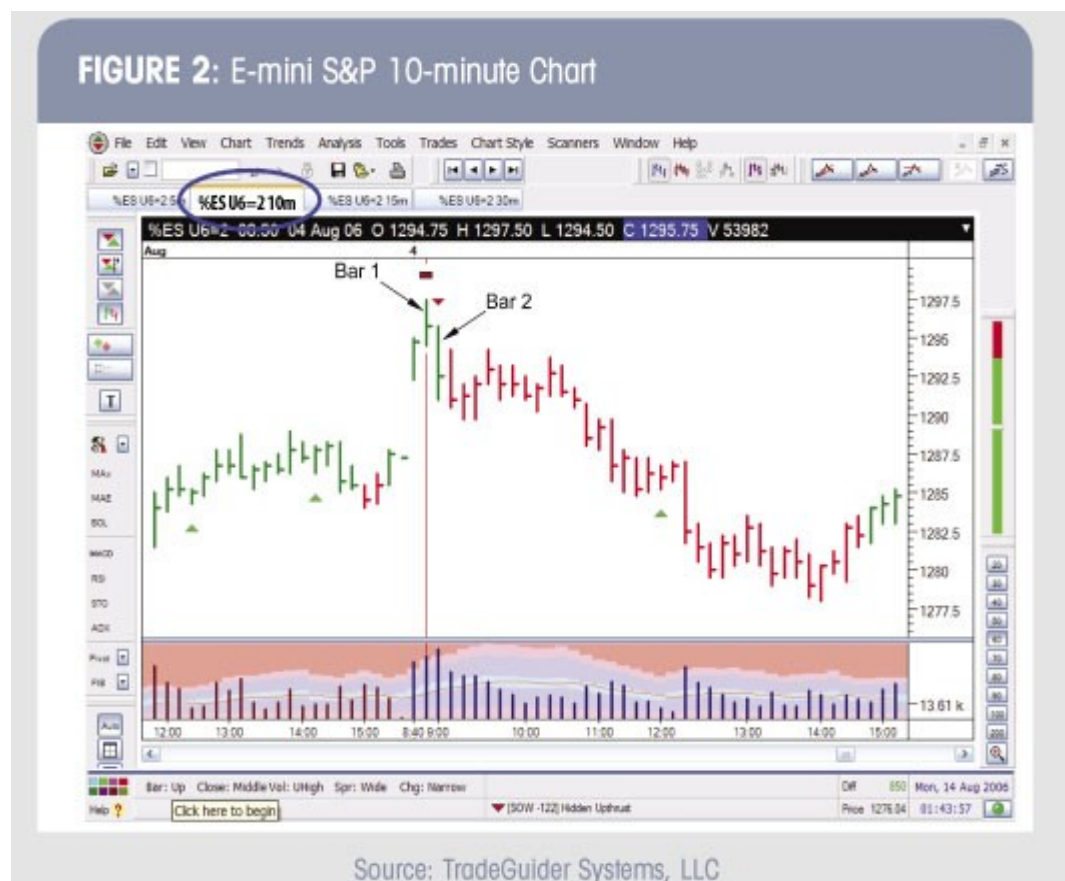
Source: TradeGuider Systems, LLC

## VOLUME CAN REVEAL WHO'S BUYING AND SELLING

Remember the previous statement that weakness appears on up bars; it has to work like this because professional money trades with very large size, and they must sell their positions into an up move in order to unload those positions without the pressure of their own selling driving prices down against them. Notice the first 5-minute bar (labeled bar 1), it's a gap-up bar with massive volume, but the closing price is in the middle of the bar; this indicates that there is supply coming from professional traders. The reason that we know this is that there is no other way to explain how that big up move could close in the middle of the bar if no selling were occurring. The retail trader is buying on the bullish news, and the only traders out there with enough size to sell into this up move and cause the price to close back into the middle of the bar are professional traders.

On the smaller time frames it is common to see several up bars in the distribution process before the market rolls over; this allows the professionals the opportunity to transfer all of their remaining positions to the herd (and establish their new short positions). On the third bar of the session on this 5-minute chart (labeled bar 2) we see another up bar with even higher volume with the very next bar sharply down, closing near the low, this now effectively locks the new long (weak holder) into their losing position. These retail traders that have bought at the top of the market will soon have to cover by selling their positions and adding fuel to the down move, creating more profits for the smart money and creating substantial losses for the weak holder. So on the 5-minute chart we know by 8:50 a.m., CST that there has been a mass transfer of ownership to the weak holder. We must now look at our longer time frame charts to confirm that this is serious weakness; this will provide proof that we have a very high-probability turning point that can be traded.

We will now focus our attention on the 10-minute chart (see Figure 2). The first thing to notice on this chart is that we can see the weakness coming in, which further confirms the weakness on the 5-minute chart. It only takes three bars on this longer time frame to see the distribution process turn the market over; the telltale sign of weakness occurs on the second bar of the session (labeled bar 1) with the very next bar (labeled bar 2) closing down near the low with an increase in the price spread; again this price action locks the new long into a poor position. On the 10-minute chart we have confirmed the weakness that occurred on the 5-minute chart and it has happened by 9:00 a.m., CST. As stated earlier, we now have two notes of a possible melody developing, but we still need to confirm this on the next higher time frame.



On the 15-minute chart (see Figure 3) the weakness is also confirmed as we see the first bar of the day (labeled bar 1) gap-up to close on the high with a high volume spike. The next bar (labeled bar 2) closes down near the low, with an even wider price spread and slightly more volume. Bar 1 on this chart is a good example of one of the rules that traders learn when they study volume spread analysis; high volume up bars (or greater), with a wide price spread (or greater) is an area where the professional trader can be invisibly dumping huge supply onto the market. Since we have already seen the proof of this on our smaller time frames, the musical notes are starting to string together to form a melody.

**FIGURE 3: E-mini S&P 15-minute Chart**



Source: TradeGuider Systems, LLC

Finally, let's look at the 30-minute chart (see Figure 4) to see what the summation of these smaller time frames together looks like on one 30-minute bar. It should now be very easy to see the extreme weakness on the opening bar of this chart (labeled bar 1), this is what VSA refers to as an up thrust; these are designed to mislead as many traders as possible into the wrong position and we can now see, with the benefit of multiple time frame analysis, how this happens on the charts! With all of the supply that has hit the market from the smart money in the first 30 minutes of trading, we have all of the ingredients necessary to establish a high-probability short position in the market. This is a classic example of a news-driven event that triggers the herd into long positions, and then we confirm the smart money is selling into this up move with multiple time frame analysis and chart reading skills.

**FIGURE 4: E-mini S&P 30-minute Chart**



Source: TradeGuider Systems, LLC

## CHART READING SKILLS ARE A MUST

By taking the reader through the analysis of multiple time frames and employing the chart reading skills that one can master by studying volume spread analysis, it is my hope that you have gained at least a rudimentary understanding of how the professional trader operates in the market and how it can be identified by the trained eye. For successful trading results, there is no substitute for the ability to read charts using multiple time frames. The chart can talk to you if you let it, but it is a learned skill which is far more accurate than simply relying on mathematical technical analysis indicators which never reveal why a market is at a turning point and very often confuse the trader that there even is a high-probability turning point to trade.

## A PRIMER ON VOLUME SPREAD ANALYSIS

Volume spread analysis (VSA) is the improvement upon the original teaching of Richard D. Wyckoff by Tom Williams, a former syndicate trader for 15 years in the 1960s-1970s (professional operator in the stock market). Williams enhanced the work started by Wyckoff by further developing the importance of the price spread and its relationship to both the volume and the close. In 1993, Williams made his work available to the public when he and TradeGuider published his methodology, *Master the Markets*. VSA seeks to establish the cause of price movements. The "cause" is quite simply the imbalance between supply and demand in the market, which is created by the activity of professional operators (smart money).

The activity of these professional operators, and more importantly their true intentions, are clearly shown on a price chart if the trader knows how to read them. VSA looks at the interrelationship between three variables on the chart in order to determine the balance of

supply and demand, as well as the probable near term direction of the market. These variables are the amount of volume on a given price bar, the price spread, or range of that bar (do not confuse this with the bid/ask spread) and the closing price on the spread of that bar (refer to Figure 1 on the lower left side of the chart). It is important to understand that weakness (supply) in a market appears on up bars and strength (demand) appears on down bars; this is exactly opposite to what most non-professional traders believe to be true. This explains why many retail traders buy at market tops and sell at market bottoms; they simply don't know any better. [More information on the background of VSA can be found in the June 2006 SFO article entitled: Rediscover the Lost Art of Chart Reading, by Todd Krueger.]

It is also important to note, in closing, that the VSA methodology works in all time frames and markets; we could have analyzed a stock or commodity from a swing or position-trading standpoint just as effectively as the example that we used. It may also help some traders to understand the methodology more clearly if we substitute the term spread in volume spread analysis with the term range, volume range analysis. It is possible for some traders to confuse spread to mean the analysis of the bid/ask spread, which has no significance in VSA.

# Follow The Smart Money: Let Candles & Volume Guide The Way

January 2009

By Todd Krueger

Compared to the common bar chart, candlestick charts are visually more capable of revealing the psychology and sentiment behind a price movement. This occurs as a result of the techniques used to create the candlestick. Each candle clearly shows the relationship of the open versus the close price. For example, when the close is higher than the open, a hollow body is displayed (to make the charts easier to see, hollow candles are replaced by green bodied candles for this article), when the close is lower than the open, a filled in, or solid body is assigned (these will appear as red bodies in this article).

To show the overall range of the bar, the high and low are displayed with a line that emerges from the body of the candle, these are known as the upper and lower shadows. It is the interrelationship between the size and position of the body, large or small, and the size and position of the upper and lower shadows, long or short, that create various candle patterns. For this article, I focus on one popular pattern called the doji. But first, let's talk about Western methodology.

## WYCKOFF'S WORK

Nearly a century ago while Japanese candlestick charts remained a closely guarded secret in Asia, an American trader by the name of Richard D. Wyckoff began to publish his methods of detecting supply and demand imbalances in the market. In his 1909 book, *Wall Street Ventures and Adventures through Forty Years*, Wyckoff introduced his discovery that it was possible to measure the force of buying and selling pressures in any freely traded market.

Wyckoff's research revealed that a trained chart reader could determine, with a high degree of accuracy, the cause behind price movement, whether it was to buy without moving the price up (accumulation), or to mark the price up/down or even to discourage buying or selling by the mass public (the herd).

## A BIG FOOTPRINT

Wyckoff's lifetime of research proved that future price moves were foreshadowed on the price chart because the "composite man" or "smart money" must leave its trading footprint on a price chart due to the sheer size of its trading volume. It is the supply and demand imbalances created by smart money that is the cause of price movement. Their activity is measured with four simple variables:

- Price movement (high, low and closing price).
- Trading volume.
- The relationship between price movement and volume.
- The time it takes for the price movement to run its course.



## PUTTING IT TOGETHER

Imagine if you will that Wyckoff and the Japanese rice traders had lived in today's society where global information is easily shared. By sharing his research with the rice traders, Wyckoff would have discovered that he was

leaving out an important piece of the puzzle in his analysis: the relationship of the opening price to the closing price and its relationship to the overall trading range. Because he only looked at the high, low and close on a bar chart, his already good analysis could have been greatly improved by adapting his analysis to the candlestick chart. This enhanced view of the market would have further identified and refined the true sentiment and psychology of the smart money, which Wyckoff was measuring.

Also, imagine the true amazement that the rice traders would have experienced when they learned how to apply Wyckoff's volume analysis techniques that identify supply and demand imbalances from the smart money. It is debatable whether these early rice traders even incorporated volume into their candlestick analysis, but even if they had, it would not have been as accurate or revealing as the techniques applied by Wyckoff in his analysis of the price and volume relationship.

When these two East and West methodologies are combined, a powerful synergy is formed. Each methodology contributes precisely what the other lacks. This new combined methodology is known as Wyckoff candle volume analysis (WCVA).

## VOLUME AND CANDLES IN ACTION

For this article, I apply WCVA on a one-bar reversal pattern known as the doji. This is a candlestick pattern that occurs when the opening and closing prices are the same or very close to each other. The shadows can be either long or short, and there can be various types of doji bars. But for the following examples it is not important to distinguish the type of formation, it is only important to be able to recognize what it looks like on a chart (see Figure 1).

**FIGURE 1: Doji Pattern on 15-minute E-mini S&P**



Source: Trade Navigator

This formation is said to represent market indecision because the market opens, trades throughout the charted period, then closes at or near the opening price. It represents a battle between bulls and bears that neither won. It is widely believed that it represents a better reversal pattern at the top of the market than at the bottom, although you will learn that this is not correct under the proper circumstances. By applying WCVA, you will learn how to distinguish when there is no indecision in a doji formation.

At the bottom of a market, a Wyckoff technician is looking for tests of supply in the market. A test occurs when the price is marked down to see if greater volume comes in at the lower price. If it does, this signifies supply is in the market. This supply must be removed before the market can begin any substantial up move. However, if the market is marked down and no sellers emerge at these lower prices, the price will come back up to close off the low, volume is lower relative to the prior candles. With no supply present at the current price level, the price should rise.

The “doji test” bar must exhibit the following parameters to be valid:

1. It must have a low that is lower than the previous candle’s low.
2. It has to display lower volume than at least several of the prior candles. The lower the volume, the stronger the indication of no supply being present.

Let’s take a look at the first of two examples that are defined as “doji test” bars. Figure 1 is a 15-minute chart of the E-mini S&P. Notice the nice downtrend in the near background. Looking left on the chart, five candles prior to the highlighted doji, the high was 1,234.25. Then the market dropped 17.25 points in 75 minutes to the low on the doji of 1,217. This sets up the ideal conditions for this formation to occur. Remember what I wrote earlier, the test candle makes a new recent low, and if there is reduced volume, it shows that no supply is present.

**FEW INTERESTED SELLERS**

You can see that this doji is making a new low on the chart, and the volume is lower than all of the previous candles. By standard candlestick analysis measures, one would come to the conclusion that this bar represents indecision on the part of the market participants. However, when viewed from a WCVA perspective, it is clear that no indecision exists here. The chart shows that there are few interested sellers at this lower price and the price comes back to close near the open. Within the next four hours of trading this market jumped more than 25 points.

With this formation, it is important to understand that the smart money, which represents a large percentage of the overall trading volume, is not selling as lower price levels are explored. This is clearly evident and is shown by the reduction in total volume. If the smart money is not selling, retail traders need to be aware of this. This will prevent them from selling at market bottoms and allow them the opportunity to establish a long trade into the path of least resistance.

Figure 2 shows a daily chart of Ryder stock. Again, in the near background is a nice downtrend. Because of the size of the chart, it may be hard to see the price scale, but just 10 candles prior to the highlighted candle, the high price was \$61.19 per share. The low of this doji test was \$54.95, which represents more than a 10 percent drop in the value of the stock in just 10 trading days. Once again, notice how the volume gets lower as the doji candle tests for supply but does not find an increase in interested sellers at these lower price levels.

**FIGURE 2: Daily Chart of Ryder Stock**



Source: Trade Navigator

If there are no sellers, the price should increase. The price of this stock rose nearly 19 percent in the next nine trading days, as there were no sellers present to stop it from increasing in value. In fact, you can see from the gap-up opening the next day at \$57 that the specialists marked the stock up as there were no sellers of size on their books. The price closed on the very high of the day at \$59.08 demonstrating the built-in demand that this WCVA formation represents.

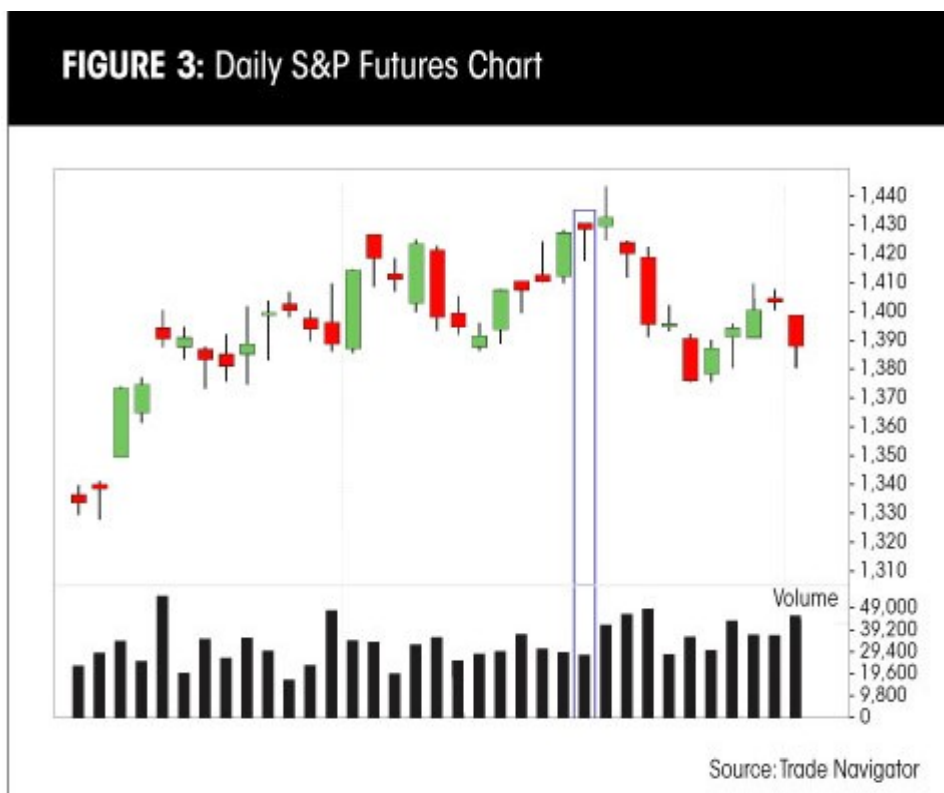
## WANING DEMAND AT TOPS

Now let's look at a doji at the top of a market. This formation is called "doji demand drying up." At the top of a market, a Wyckoff technician is looking for signs that demand is waning. A lack of demand occurs when the price is marked up to see if there are willing buyers at these higher price levels, but as the price moves up, trading volume decreases. This is a telling sign that there is no interest in higher prices from the smart money.

With no professional buying interest at the current price level, the price should fall. The "doji demand drying up" must exhibit the following parameters to be valid:

1. This candle's close must be higher than the previous candle's close.
2. It has to display lower volume than at least several of the prior candles. The lower the volume, the stronger the indication that demand has dried up.

Figure 3 is a daily chart of the big S&P contract. Preceding the doji marked on the chart, you can see that the market has been in an uptrend for the past 23 trading days. As the market moves up to the highest reached in the last month and a half, the amount of interested buyers is drying up. We know this because the volume is reduced relative to the previous candles, even though the S&P is making a new recent high—strong markets don't behave this way.



This occurs at the top of the market, and when we apply WCVA, the "doji demand drying up" indicates that at least this phase of the up move is either close to or at the end.

The close of the doji candle occurred at 1,425.8. Only five trading days later, the market closed at 1,373.4, a drop of more than 50 points. With this formation, it is important to understand that the smart money is not interested in supporting higher prices. This is evidenced by the reduction in overall volume. If the smart money is not interested in higher prices; retail traders can take this knowledge and refrain from buying at market tops, as well as allow them to establish a short trade into the path of least resistance.

## **FOLLOW THE SMART MONEY**

By understanding these straightforward examples, you should now be capable of identifying these formations when they occur on your charts at home. I only had the space to review one candle formation in this article, but the analysis applies to every type of candle pattern.

Wyckoff candle volume analysis works in all markets and timeframes, and precisely reveals the true psychology and sentiment of the smart money. By trading in harmony with the smart money, we truly trade in the path of least resistance and increase the probabilities of success. This knowledge will empower the individual trader and help prevent buying market tops and selling market bottoms for all who apply these techniques.

# HIGH-PROBABILITY TRADES

March 2009  
Todd Krueger

## HIGH-PROBABILITY TRADES

For me, a successful trading strategy relies on trading from support/resistance (S/R) levels using Wyckoff candle volume analysis (WCVA) patterns.

I realize numerous benefits from my trading plan when trading from valid support/resistance levels. By waiting for the trade to come to me, I eliminate the essential hallmark of the losing trader: overtrading. These S/R levels also allow me to accurately identify where to place my protective stop loss and usually keep me on the right side of the order flow.

## BACKGROUND

WCVA is a zero-lag methodology that is used to identify price strength/weakness when it appears on the chart. A synergistic trading strategy is created when you combine S/R levels with WCVA patterns. [See the January 2009 article "Follow the Smart \$\$"]

Technical analysis provides you with a multitude of methods to find valid S/R levels. The method I illustrate here occurs when an old area of price support is broken. You know that old support, once broken, becomes new resistance. See Figure 1 and note the red line drawn from the candle that created the initial support. To the right are circled areas where price respected the support line. Once price penetrates this level, you should wait patiently for it to rise as you monitor for signs of weakness using WCVA.



**FIGURE 1: 30-minute American Express Chart**



Because you expect price weakness at a resistance level, your market timing will be impeccable. At the arrow on the chart, note the candle formation and the greatly reduced trading volume. In WCVA terminology, this is known as a doji, or a demand-drying-up candle. It confirms that the smart money is withdrawing as the price moves up to this resistance level. Big traders are not buying, and without their buying support, the price will fall.

## GETTING IN

Enter this short trade when price breaks 1 cent below the low of the doji. The placement of the stop loss is set just a few cents above the resistance line. In this example, the low of the doji is \$19.12 and resistance is at \$19.39, so your entry would be at \$19.11 and your stop approximately at \$19.41. By combining support/resistance levels with WCVA, you can use extremely tight stops with high-probability outcomes.

## GETTING OUT

Scale out of 50 percent of your position at the first expected area of chart support, which is designated by the blue dashed line in Figure 1 around \$18.42. Once this is hit, you will move the stop on your remaining positions to just above the closing price of the doji candle and keep trailing the stop as price moves down, maximizing your profit.