

Trading Order Flow

Understanding & Profiting From Market
Generated Information As It Occurs

Michael Valtos

<http://www.orderflows.com>

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Special Thanks To: NinjaTrader.com is the award winning trading software and platform which I use to generate my charts.

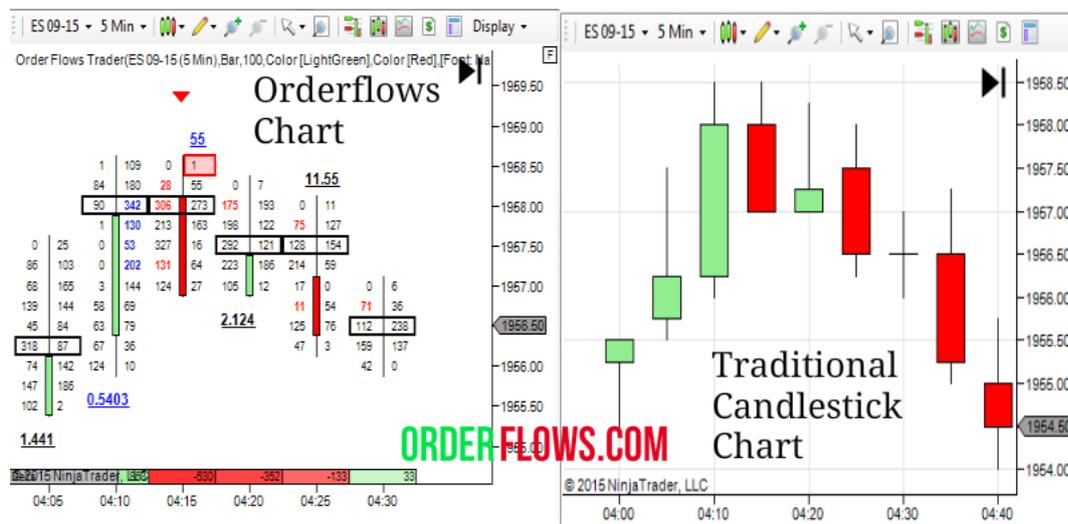
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INTRODUCTION TO ORDER FLOW

My name is Michael Valtos and since 1994 I have been trading for banks (JP Morgan and Commerzbank) as well commodity trading houses (Cargill and EDF Man) and for myself. While trading for the investment banks I learned how to get information out of the market and how to trade off that information into a profitable position; when there is an opportunity to earn a significant return relative to risk you get into a position. While trading at commodity trading houses I learned to think how commercial end-users think; you are always in a position just by being in that business whether or not you chose to hedge a position in the futures market. While trading for myself I learned to take low risk high return trades; I do not try and capture every random move in the market. What I look for is what I like to call “Stress Free Trades” which to me are low risk entries that have high profit potential. I have enough stress in my life I don’t want trading to add to it.

Order flow analysis is a visual representation of market price movements constructed by recording the volume traded on the bid and the offer as opposed to just looking solely at price. The value in order flow analysis is in instantly confirming market tops and bottoms when they form, determining where changes in supply and demand have occurred and providing insight into market psychology and market conditions.

Here is an Orderflows chart compared to a traditional candlestick chart:



Normal bar charts only show the open, high, low and close. They don't show how much traded on the bid and offer. They don't measure how strong the buyers and sellers were. Orderflows charts tell you that.

New traders are always trying to find the Holy Grail when it comes to trading. A way to trade that will allow them to pull money out of the market as if it is their own personal cash machine, a secret order to the markets based on price indicators and moving averages. However, when it comes to the market there are no secrets. Nothing in the market is 100% certain. Hard work, practice, sound money management and, most of all, discipline are what will make a trader profitable.

Just as the alchemists used to try to turn lead into gold, mathematicians and computer programmers come up with new indicators to try and predict the next market trend. Gann enthusiasts and Elliot Wave practitioners throw stones at me when I say the market is not ruled by mathematical formulas.

Not much has changed over the last 100 years of trading except the advent of computers making the dissemination of market information faster. Traders still look at the open, high, low, close and volume in almost the same fashion as they did 100 years ago. Traders still look at the ticker tape, although now they refer to it as order flow. Computers have made tracking the trades as they occur much easier and allows for the data to be analysed and deciphered.

The Japanese have a saying "consult the market about the market" which means that when trading the market, we should pay close attention to the market movement is telling us, rather by swayed by information outside of the market, either fundamentally or technically. In volatile times, a fundamental trader/analyst can be exactly right about the market but they can get run over in the short run. A long term trader needs to be aware of what is happening in the market in the short term.

It isn't just the retail traders that get caught off side. Sometimes it is the big institutional hedge funds not watching what is happening in the market. In the case of Clive Capital, the fundamentals were still bullish, the technicals were something that rarely happens - the market moved 5 standard deviations. None of that stopped the market.

May 8, 2011 11:00 pm

Commodity hedge fund loses \$400m in oil slide

By Sam Jones in London

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Clive Capital, the world's largest commodity [hedge fund](#), has been left nursing losses of more than \$400m as a result of the [collapse in the price of oil last week](#).

London-based Clive – which manages an estimated \$5bn of client money – is the biggest of several large hedge funds believed to be reeling after the unexpected sell-off hit markets late last week.

Others, including Astenbeck Capital, the Phibro-owned fund run by Andrew Hall, are thought to have taken double-digit percentage point losses to their portfolios, according to investors.

The scale of the losses demonstrates that even the savviest investors in commodities were wrongfooted by the correction, one of the sharpest one-day falls on record.

In a letter sent to investors on Friday and seen by the Financial Times, Clive said it was down 8.9 per cent on the week after what it called “extraordinary” price movements on Thursday. Clive’s management said it was at a loss to explain what had caused crude oil markets to be “annihilated”.

Clive’s letter said: “The move in Brent represented about a 5 standard deviation move, while WTI was a 4 standard deviation move”. A five standard deviation daily move is an exceptionally rare event.

“Economic data were soft early in the week though micro news for oil continued to be bullish. Indeed there was news out earlier in the week of further supply disruptions in Yemen and a substantial technical supply outage in the UAE,” the fund said.

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Would order flow analysis have helped Clive Capital? I don't know. But I do know that when I see smoke I look for a fire and if there is a fire I run for the exit. I don't wait around for the fire to be put out.

I know what you are going to say, “Warren Buffet says to buy when everyone is selling and sell when everyone is buying.” You have to fade the crowd mentality. While that is indeed true most of the time, you have to get out when the signs are there. If you are an American visiting Iran and people are chanting “death to Americans” it is your best interest to get out there. Granted that is an extreme example, but you should get the point. If the market is telling you to get out, you should get out.

Order flow is not another form of technical analysis per se. Technical analysis is the study of prices as they appear on a price chart and it assumes that current prices represent all known information about the market. The problem with that is that traded prices don't just represent intrinsic facts about supply and demand numbers, prices also take into account people's expectations about the future. Order flow analysis is a dynamic, real-time way to view the market's evolving and changing market state. Its primary benefit rests in its unique ability to see a clearly who is in control of the market based on market generated information as it happens.

The key elements of order flow are price, traded bid volume, traded ask volume. When these elements are displayed in an order flow chart, traders who understand order flow will be able to identify the market's areas of strength and weakness. Every market moves up or down based on the interaction between supply and demand. Traditional charting techniques or analysis do not accurately allow you to analyse, understand and interpret the fighting occurring between supply and demand. Order flow charts allow you to dissect supply and demand balance in real time as it is happening. You will understand which side is in control and be prepared to respond when it changes.

As we are taught in Economics 101, prices are a function of supply and demand, and both supply and demand are affected by people's emotions. Markets move based on people's needs and more importantly their future expectations of needs. The problem is that a traditional bar chart does not accurately measure nor reflect the emotions of the market participants.

Order flow analysis allows a trader a quick read on changes in supply and demand. By analysing the price movements of the volume traded on the bid and ask, a trader is can confirm a trend continuation or reversal early on and gauge market sentiment by determining how aggressive the market traded.

In the past it was difficult to read and understand order flow, however advances in technology and the exchanges have made reading and following order flow accessible to anyone who is interested to learn it.

The advantage of order flow analysis is that it shows the trader a very clear visual image of what is happening in the market. It provides a deeper insight into the market when compared to other types of charts. The market signals that show up in the order flow are not available in other forms of bar charts. Now you can see and determine for yourself how aggressive the buying or selling in a bar really is.

It is a fact that institutional traders are the first to act when a big move is about to happen because they have the money to move the market and they are often the traders that give the market the push it needs to get started moving. In the past there used to be a trading floor where independent traders who paid big sums of money to be in the trading pit would yell and scream while trading with brokers who were executing the institutional trader's orders. When a sizable order would go into the trading pit the independent floor traders could make an educated guess if the order would move the market and trade accordingly. Today there are no trading pits. There are no people screaming to execute their trades in a trading pit where you can see which players are buying and selling. Trading is done electronically now. However, electronic trading is anonymous and quiet. You need to be able to read the footprints the institutional traders leave behind in the market.

Roughly 95% of traders lose money. Why? Losing traders make trading decisions based on indicators such as RSI, Stochastics, MACD, Moving Averages, etc. All these indicators are derived off of price. I find it is better to just look at price and how the market participants react to price. Price is an advertising mechanism. It is there to get you into a trade.

Losing traders are your edge in the market. It is their money you have to take. In order to do that you have to approach and read the market in a way that is different than what the 95% of losing trader do.

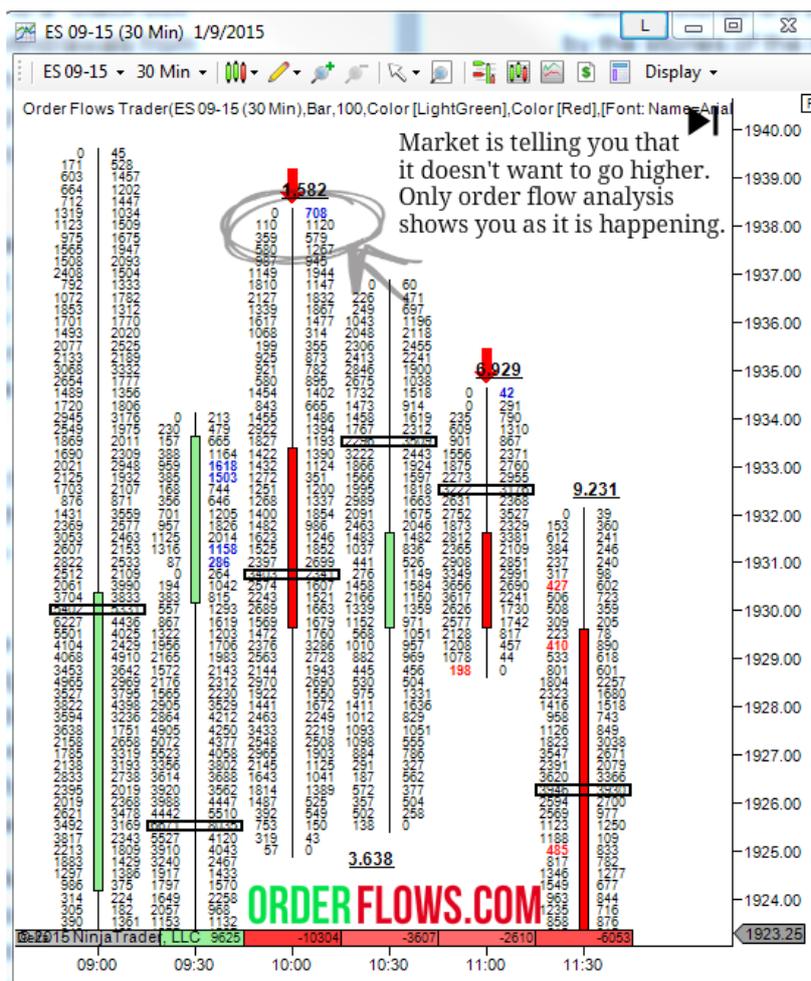
Many traders are led to believe that they can blindly follow a mechanical system that is based on a mathematical formula and back tested on 20 years of data to show its profitability. But what they fail to understand is that it is not mathematical formulas that move markets.

You do not need an advanced degree in Applied Mathematics to understand and make efficient use of order flow. Even financial experts don't know all the answers. Nobody does. Order flow analysis is a tool to

help a trader make the right decisions, to spot weak highs and lows, to spot aggressive buying and selling and much more.

Other traders think they can just entrust their money to a “black box” computer program and sit back and make monthly withdrawals from their brokerage account. They think they can make the money successful traders do with an off the shelf computer program. They do not want to put in the hard work necessary to develop the skills to become a successful trader.

A trader has to learn how to trade, not learn how to take a trade. What I mean is a trader has to learn how to read the market, learn how to anticipate what the market will do based on what it is telling you and go with it. If you talk to any aspiring trader they will tell you all about the latest indicator or moving average crossover they are using to trade. That is not trading, that is just taking a trade.



So how does one make money trading?

By listening to what the market is telling you and using strategies and taking trades that give you an edge by being more knowledgeable than most of the other traders. It is not as difficult as it looks.

The key to successfully trading futures is to stack the deck in your favour. This is done by trading when you have an edge. Order flow gives you that edge. Most traders

don't pay attention to order flow. One of the benefits of order is that you don't have to analyse every tick. Most numbers can be disregarded. What you are looking for are numbers that stick out and then ask yourself what is going on in the market.

Be realistic in your thinking and approach to the market. At any given moment there are literally thousands if not tens of thousands of traders watching the market with the intention of finding a profitable trade to take. You don't need a crystal ball to know when they are coming, you just have to get in before everyone else does.

Time may prove me wrong, but I worry about the state of the markets when all the big trading firms only want to hire traders with advanced math degrees. It doesn't take a PhD to understand why a market moves. I have always felt that trading is like most professions in as much as the accumulation of knowledge is concerned. Markets do not always do what they are supposed to do.

Trading futures is a business just like any other. It is easy to be dazzled by the stories of the million dollar bonuses. Most people trade the markets for one reason – to make money. A successful trader has a business plan (trading plan – when to get in and out), a budget (trading capital), an operating plan (money management) and most importantly has discipline and will use that discipline to stick to their plans and make money. They recognize when it just isn't their day and stop trading for the day. They know when to be aggressive and when to back off. Tomorrow is another day. Futures markets are open every weekday. Successful traders trade on their own terms and conditions. When the conditions are ripe they go in for the trade, if not they wait. Successful traders approach trading as a business like any professional would.

We all want the big money as a trader. When we watch basketball we all want the amount of money Michael Jordan made or what LeBron James makes now around \$20 million a year. The fact is those guys are superstars and the best at their trade. Look at lesser players like Ray Allen who is Basketball's All Time leading 3 point shooter. He earns \$3 million dollars a year. He comes on late in the game and shoots and score 3 point attempts. He specializes in one thing, but he does it

extremely well. He has become a master at it. Trading is the same way. Understand the basics and become a master in an aspect of trading.

Every mother wants their child to grow up to be a doctor. Why? Because they know doctors make very good money. But I am sure among the doctors you know, the ones who make the most money are those who specialize in one area and are experts in their field of training, like the cardiologist or neurosurgeon. Some of the highest paid professionals are specialists. The point here is that in almost every field you can make good money by specializing in a certain area.

Most people who are new to trading do not take the time to become experts in an area of trading. They jump from indicator to indicator when they experience a loss. These new traders then think they know it all when it comes to the market. But the fact is they don't know much, their problem is they haven't taken the time to learn about the market and what makes it move.

Retail traders often place way too much emphasis on finding the absolute "perfect" system to trade with the right balance of technical indicators. Professional traders make their trading decisions without relying on indicators and cluttered charts.

Global political events, monetary policies, economic reports and other external fundamental forces are key factors in what drive price movements. These factors cannot be measured with an oscillator or a moving average. Knowing how to read the order flow, what is happening in the market, as these fundamental forces appear give you an edge over other traders who are simply following indicators or oscillators which lag price.

If I achieve my objective through this book, I will have taken you to a new level of understanding the market that most traders never think about or understand. As with any way of trading the markets one must proceed with baby steps when starting out. Make sure you understand what you are doing before jumping in as there are risks involved when you start trading with new ideas and concepts.

Enough of this preaching, let's get on to the heart of the matter and begin to learn how to use order flow to become a profitable trader.

BENEFITS OF TRADING ORDER FLOW

Order flow shows the market psychology. What is happening in the struggle between buyers and sellers. There is no other form of analysis that shows you how aggressive traders are being in the market, among other things.

Beginning traders often spend their time coming up with trading systems that show amazing win-loss ratios of 80% winning trades, profit ratios far exceeding \$3 profit to every \$1 loss and generating millions of dollars when back tested. So they open a trading account and promptly lose all their money. They think the markets are logical when in fact it is psychological. It is the emotions of the market participants that dictate their buying and selling, not mathematical formulas. A market doesn't reach a high and turn because the RSI says the market is overbought, it turns because the sellers have overwhelmed the buyers or the buyers have disappeared.

Institutional traders make their money by being on the right side of the market when it moves. These traders work for banks, large corporations, hedge funds and governments. They can't afford to be wrong on the market very often because it will ultimately cost them their job and cushy lifestyle. At times these traders may be privy to information not readily available to the general trading public. These traders are able to see major trends before they take place and position themselves accordingly. They don't rely on technical indicators and black box systems. They use the black box between their ears called their brain. What is great about order flow, is that their actions are recognizable in the volume after their trades. This enables the order flow trader to understand what is happening in the market before other traders are able to notice what is happening.

Order flow helps to remove the randomness from trade decisions. Traders who use technical indicators are basing their trading decisions on combinations of fast and slow moving averages. There is no logic behind it. Why should a 21 day moving average be that much better than a 20 day moving average? Technical indicators just curve fit past results to make the results look pretty. We have all seen the charts showing a perfect MACD trade giving a buy signal at the low and sell signal at the high. But you don't see the charts where you would be chopped up

every other bar, buy, sell, buy, sell, buy, sell, etc. Order flow will help to keep you out of the choppy markets.

Order flow enables a trader to make accurate trading decisions. It is easy to make money when the market is trending beautifully in one direction. But the market doesn't always do that. The market trends, stops, continues, turns direction, etc. Most technical tools lag the current price. When market behaviour starts to change you need to quickly adapt. Order flow shows what is happening in the market NOW so that you can capitalize on the opportunities as they happen. Order flows shows you why prices turned at a level. Order flow shows you how aggressive the market participants are.

Order flow provides an objective means to quantify risk. Every trading book says to "cut your losses short and let your winners run." While great in theory, the reality is when you cut your losses short, you also cut your potential profits. Technical and fundamental traders struggle to know when to cut losses short. There is no technical indicator that says you can cut a position short here or there. Order flow shows you exactly where to get out of a trade when it is not going as planned. You are not left to guess if a trade is working out or not. You will know before you get in. Additionally order flow shows you when there has been a change in supply and demand which will help you determine if you should indeed cut your losses short.

Order flow allows for more structured and less stressful trading. All traders look for low risk trades, but I take it a step further and look for low stress trades. We all have enough stress in our life, there is no reason why trading should add to it. Order flow allows you to know the areas to get in and the area where you will know if a trade is not working out.

EXAMPLES OF ORDER FLOW IN EVERYDAY LIFE

Non-traders think trading futures is some black art that is only for those on the inside and if you try to explain what order flow analysis is to them, they will think you are some sort of voodoo witch doctor. Actually we are all order flow traders in real life without realizing it. In our everyday life we are confronted with decisions about value of things, whether it is deciding to fill up your car with gasoline at Shell or Texaco based on price or reading about a sale for the latest hand phone. We make decisions based on based on our perceived value of a product relative to what we are willing to pay for it and how desperately we need it.

When you buy a car you go to a car dealer with an idea of what the car you want to buy is worth and what you are willing to pay for it. The dealer knows what the lowest price is that he can sell it at. You and the dealer negotiate back and forth until both of you are happy and agree on a price. Within the negotiation one of you had to be the initiator in the trade. Either the dealer came down to the price you wanted to pay or you went up to paid the price the dealer was offering to sell the car to you.

Women don't realize but they are on the forefront beneficiaries of trading and market forces because the fashion business operates just like the market. Trends in fashion are constantly changing, skirts get shorter, certain fabrics become more popular as do colours. Clothing stores watch their inventory and anticipate changes in fashion trends to make sure they are adequately stocked with items where there is strong demand and they can charge high prices. The stores lower prices on items when the demand is waning and they can still make a profit on it. If a store does not change its position quickly enough and go down on price on items with dying demand they will be forced to sell those items at a loss.

Your body temperature fluctuates during the day, most of the time your temperature is within a normal range of 36 to 37 degrees Celsius. Body temperature tends to be at its lowest during the morning and it is at its highest during the afternoon. Many outside factors such as exercise, eating, consuming alcohol or catching a virus can cause your temperature to rise outside its normal range. If it reaches a certain level and stays there for a prolonged period you know you are not healthy.

The markets are the same way, only instead of temperature you are dealing with prices. If a price is too extreme it can be a sign of the market being unhealthy. When external factors are added to the normal routine, the market can and will react to it, just like your body temperature.

It doesn't always rain when the sky is cloudy. Nor does a bright shining sun indicate warm weather. Weather predictions depend on such factors as the time of year, high and low pressure areas, barometer readings, etc. The markets behave the same way. Just because a chart indicates something should happen doesn't mean it will happen. Just because fundamental analysis leads you to believe prices should go up that they will. You need to look at what is actually happening in the market to know what is happening in the market.

ORDERFLOWS SOFTWARE

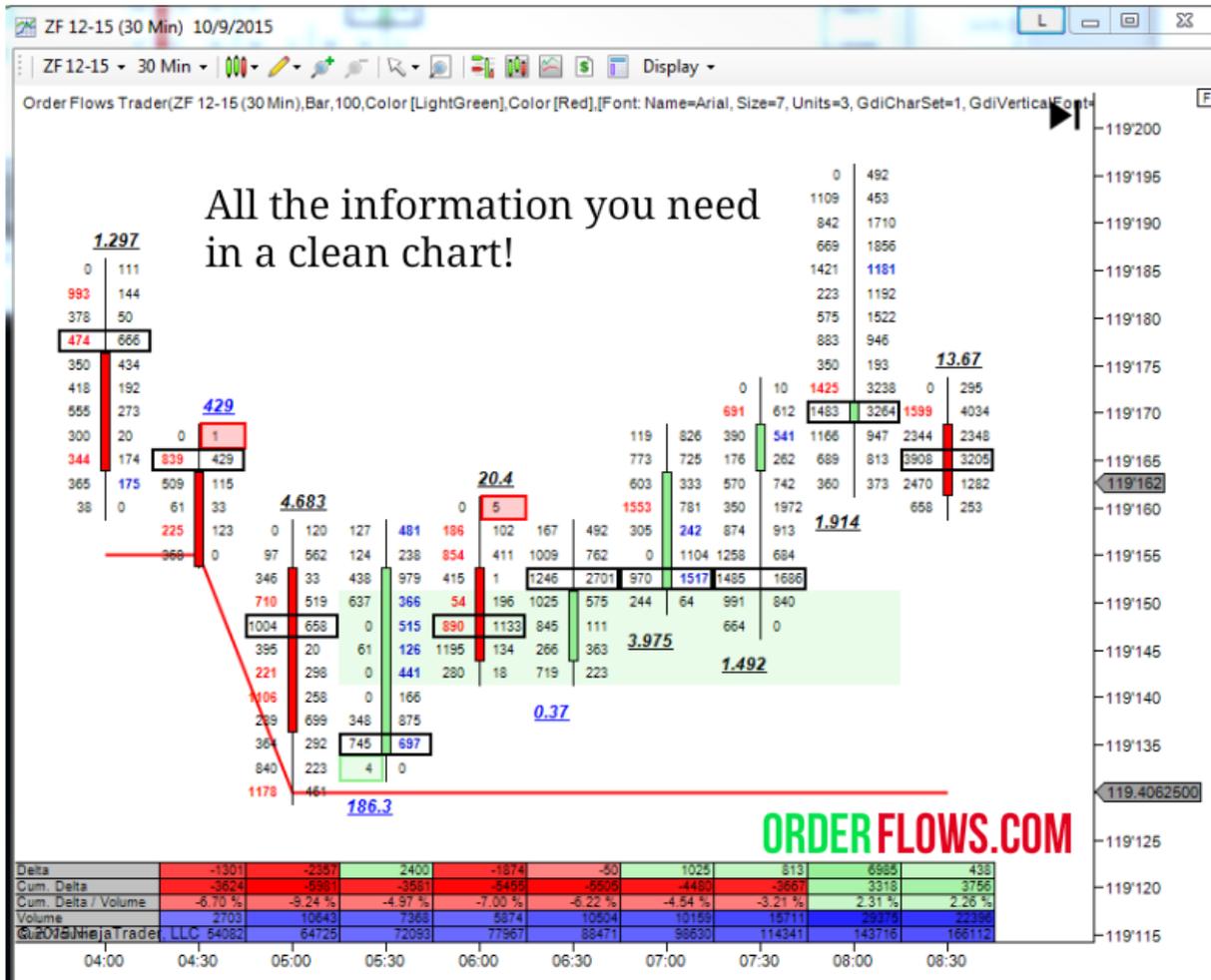
There are several different order flow software vendors in the market. I tried most of them. The prices range from a few hundred dollars to well over \$3000! The scary part is people actually spend \$3000 and more for trading software thinking it will make them a better trader. It is tempting when you see their slick sales pitch. I mean who wouldn't want to trade 2 hours a day and make \$1000? If you could guarantee me \$1000 a day profit trading for only 2 hours a day, sign me up. Unfortunately there are no guarantees in trading and it takes work, sometimes a lot of work.

I created the Orderflows software so that reading and understanding order flow is easier based on what I feel is important to the trader. I spent the better part of three decades trading all different sizes of orders. I traded more than my share of thousand lot orders. I know the impact certain types of orders and trades have on the market. I know what it is like to be trapped in a position and need to scramble to get out. I know what will happen to the market when I step in with 1500 lots to buy and create a low of the day. There are a lot of market intricacies that the current order flow software just did not highlight or explain. I found a coder and gave him my instructions and the result is the Orderflows software.

When creating the Orderflows Trader software I wanted the indicators to be displayed automatically on the chart. The beauty of order flow analysis is that it can be applied to any timeframe, range-frame or volume-frame with consistent results.

Orderflows Trader software can be used on its own or in conjunction with whatever method you use to analyse the market and make trading decisions.

I purposely wanted to keep the chart clean and uncluttered so that it is easy to see setups as they are happening. The only squiggly line on my chart is the high and low for session.



The Orderflows software runs on the NinjaTrader trading platform. I chose this platform because for a retail trader it is probably the best trading platform available. Many futures brokers use NinjaTrader software. NinjaTrader offers a free version. You can run the Orderflows software on a free version of NinjaTrader if you want to and execute your trades through your own broker supplied trading front end.

I get my data from Kinetick. The quality is excellent and the price is affordable.

INTERPRETING ORDER FLOW

When an institutional participant, like a hedge fund, wants to buy 2500 contracts of soybeans, they won't just put in a market order to buy 2500 contracts at the market. They have to think of the market impact an order of that size could cause. There are many ways they can work the order to minimize market impact, but the fact remains the same. When the trades go through it will show up in the tape and can be interpreted in the order flow.

Order flow's value is not in predicting exact tops or bottoms, but in confirming market tops or bottoms as they form and providing insight into the market's psychology.

At the most basic level of market structure it is buyers (demand) and sellers (supply) who move the markets. It is not mathematical formulas. Markets don't move because the MACD or RSI reached a predetermined level. What causes markets to move is when demand exceeds supply or supply overwhelms demand. Indicators lag prices. When the market makes a high, there are no indicators which will say sell until well after the market has turned lower.

What causes markets to turn and change direction is a little more complex. Markets turn when the last buyer has bought or the last seller has sold. Markets turn when their price is considered cheap and big buyers start to come in and scoop up supply at those low price levels. Conversely, when prices are rich and sellers want to sell as much as they can at high prices. There are times it is just obvious you would not believe it. Order flow charts show you these levels.

I use order flow to understand the behaviour of the market. Everything I do is to understand the behaviour of other market participants. I try to understand the position the other trader is in. Are they long and wrong? Has a big player decided price is too cheap or expensive? Has someone tried to push prices higher or lower and failed? All of these questions and more can be answered with order flow. Imbalances in supply and demand can be detected with volume analysis.

Once you start watching the way orders flow into the market by reading the tracks or footprints left behind by the traders it will become clearer where the market is going. Markets are not predictable all the time, but

at certain times the direction the market will be moving will become pretty obvious.

Order flow is a discretionary way to trade. Even though it requires discretion, it doesn't mean that you trade it without rules. Every situation is a bit different. What you look for are patterns that occur over and over. They may not be exactly the same, but the pattern of the order flow is recognizable. Are aggressive buyers coming in? Is a high weak? Etc.

Order flow allows you to identify price action that repeats in a general sense. How the order flow flows in the market. While the market activity is never exactly repeated, by knowing how to read the market activity as it happens enables the trader to gauge the current state of the market and form an opinion of what will happen. There is always a constant struggle between buyers and sellers. Buyers want the price to go higher and sellers want the price to go lower. So you need to ask yourself "who is in control?" The market is always giving clues as to who is in control. By observing the flow of trade can a trader understand who is in control of the market.

I spent three decades watching and trading futures based on order flow. The same concepts still apply from 20 years ago or even 100 years ago as they do today. When the price of something is too cheap people buy it and it becomes a low. When the price is too high, people sell it and the high is made.

What order flow provides the trader is the ability to stay out of the market when there is no reason to trade. It allows the trader to see both sides of the market, what is trading on the bid and what is trading on the offer, and gives the trader a far better view of the current state of supply and demand than the ordinary trader will struggle to see.

I have met a lot of floor traders in my life and some of the best have told me they get a "feel" for the market. While this may have been true during the days of open outcry because you can see and hear the trading going on based on the noise level and hand signals flashing back and forth. Unfortunately now the open outcry trading floors are closed and everything is traded electronically. It is hard to get that "feel" on the market anymore. Even when I think about it, having a "feeling" on the market has gotten me into more trouble than I care to mention.

However I believe that anyone can learn to “read” the market. Reading the market allows you to know where buying and selling is going on or drying up. Reading the market allows you to know where solid highs and lows have been made.

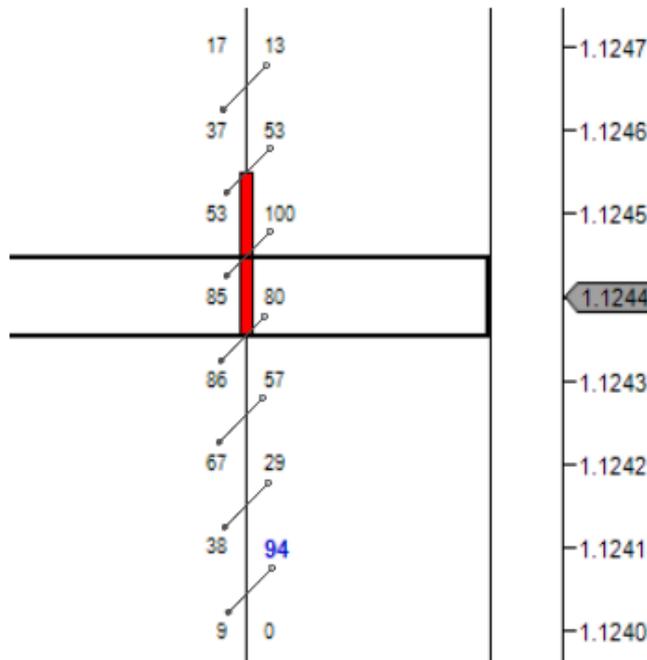
Traders make money by being positioned in the direction the market is moving. They are long when the market is going up. They are short when the market is going down. It sounds simple, yet so many people lose money in the market because they are short when the market is going up or long when the market is going down. By reading the order flow a trader can determine the direction of the market. If the market tells you to go long, then buy and go long, and when it starts to go down, then get out of the position or get short.

Let the market show you the direction it wants to go rather than trying to predict where the market will go.

Order flow charts can be used in any futures market that has sufficient volume traded daily. There are different strategies to employ for different market conditions. Markets that have high price volatility (have large price ranges) with varying volume, i.e. currency futures, have certain characteristics that are inherent to them, while markets that have low price volatility but high volume, i.e. interest rate futures, have their own characteristics. However many of the same underlying principles discussed here can be applied to both types of markets.

READING AN ORDER FLOW CHART

HOW TO READ AN ORDER FLOW CHART



Orderflows charts record the actual trade volumes on the bid and on the offer, not resting or unfilled orders.

Order flow charts are read diagonally, from left up one to the right. For example, when the market was 1.1246 bid / 1.1247 offer. 37 lots were sold into the bid at 1.1246 and 13 bought from the offer at 1.1247. When the market went offered at 1.1246 and 1.1245 bid, 53 lots were bought from the offer at 1.1246 and 53 lots sold into the bid at 1.1245. When the market went 1.1245 offer and 1.1244 bid. 100 lots were bought from the offer at 1.1245 and 85 sold into the bid at 1.1244. And so on all the way down.

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When comparing prices on an order flow chart you have to do it diagonally from the left to up on level on the right, not horizontally. Futures markets no longer trade in a fixing in that they when it gets to a price like 1.1244 all the people that want to buy it and sell it at that price can. The way the markets work is traders put in bids and offers and people buy and sell accordingly. The market will move from 1.1240 bid / 1.1241 offer to 1.1241 bid / 1.1242 offer to 1.1242 bid / 1.1243 offer.

When you look at the example above, when the market was 1.1240 bid / offered at 1.1241. 9 lots were sold into the bid and 94 lots were bought from the offer. When the market was 1.1241 bid / offered at 1.1242, 38 lots were sold into the bid and 29 lots were bought from the offer. When the market was 1.1242 bid / 1.1243 offer, 67 lots were sold into the bid and 57 lots bought from the offer. When the market was 1.1243 bid / 1.1244 offer, 86 lots were sold into the bid and 80 lots bought from the offer at 1.1244. When the market was 1.1244 bid / 1.1245 offer, 85 lots were sold in the bid and 100 lots bought from the offer. When the market

was 1.1245 bid/1.1246 offer, 53 lots were sold into the bid and 53 lots were bought from the offer. When the market was 1.1246 bid/1.1247 offer, 37 lots were sold into the bid and 13 lots bought from the offer.

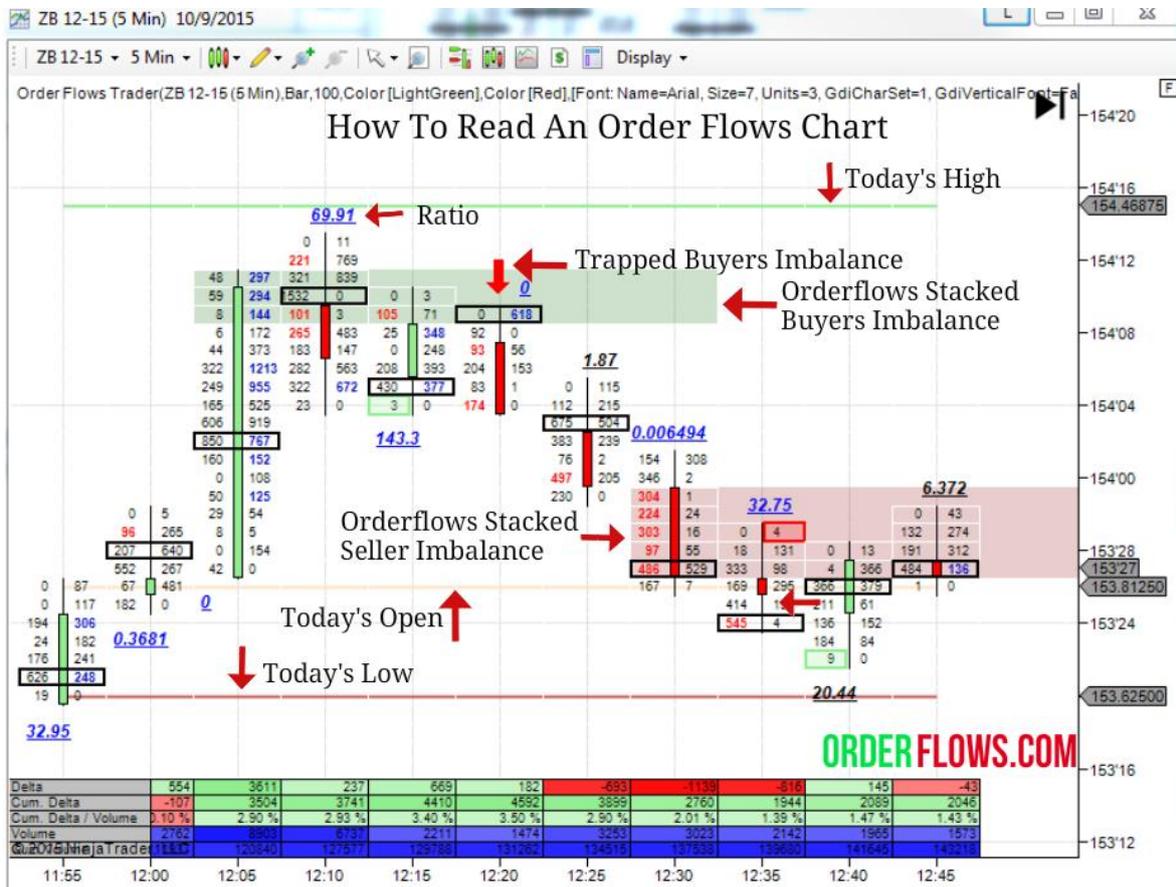
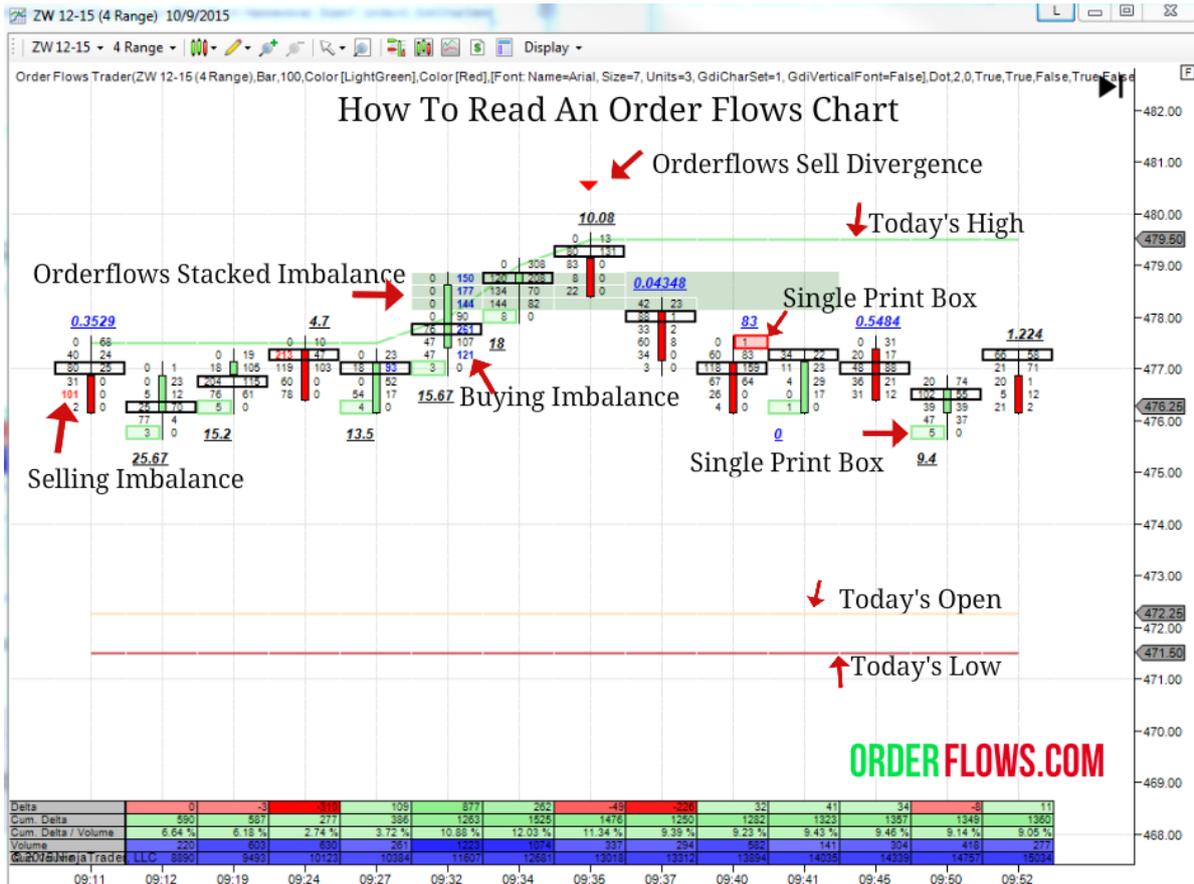
The market did not go 1.1247 bid because the volume on the bid is 17. This is called unfinished business. The market tried to go higher and was bid 1.1247 and in this case 17 lots sold into it, but no one bought from the offer at 1.1248. The reason this is referred to as unfinished business is because the market has a tendency to come back to that level.

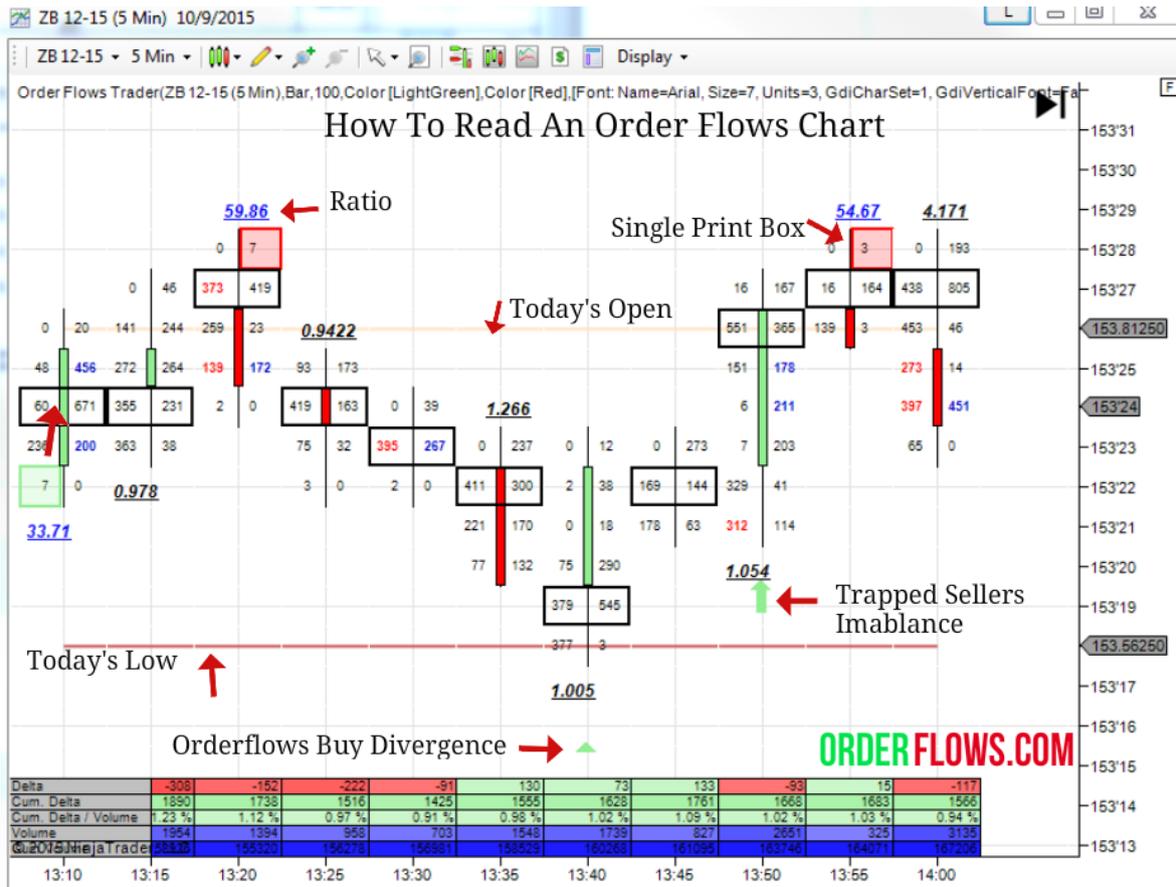
The market did not go 1.1240 offer because the offer volume is 0. If the market went offered at 1.1240 and traded it would show a volume other than 0.

There is always a bid and offer in the market (unless the market is limit big or limit offer). That is how trading is done. Someone wants to buy so they work a bid, someone wants to sell so they work and offer. When someone is tired of waiting they go to the market on their order or they just get in at the market. They buy at the offer price or they sell at the bid price. Order flow charts allow you to compare what traded on the bid side and what traded on the offer side.

Order flow charts monitor not just volume and price, but more importantly on which side of the market the volume happened. The bid side or the offer side. It is this information that gives the order flow footprint charts their color – green for aggressive buying (more trading at the offer price) and red for aggressive selling (more trading at the bid price). Black prices are considered neutral.

On the next couple of pages is a quick glance at Orderflows Trader software generated charts. Don't worry about understanding all the notations now. It will make sense to you once you read through this guide.





THE IMPORTANCE OF PRICE

Price is one of the most important pieces of information in trading. Price is what makes people want to buy or sell a commodity. The change in the price of a commodity is the determining factor between a profit or a loss for traders.

The goal for traders is to buy when the price is low and sell when it is high. That is common sense, Trading 101. So why do so many people lose money trading?

When the price of a commodity starts to move there needs to be a big enough force behind it to overcome its opposing force. Stated another way, there has to be more buyers than sellers for the price to move up or more sellers than buyers for price to move down. The market participants cause the market to move with their buying or selling activities.

HOW price moves out of an area can determine if the impending move will be strong or weak. Just because price moved does not mean it will continue in that direction. Knowing HOW price moved is important in understanding the health of the market, if it is strong or weak.

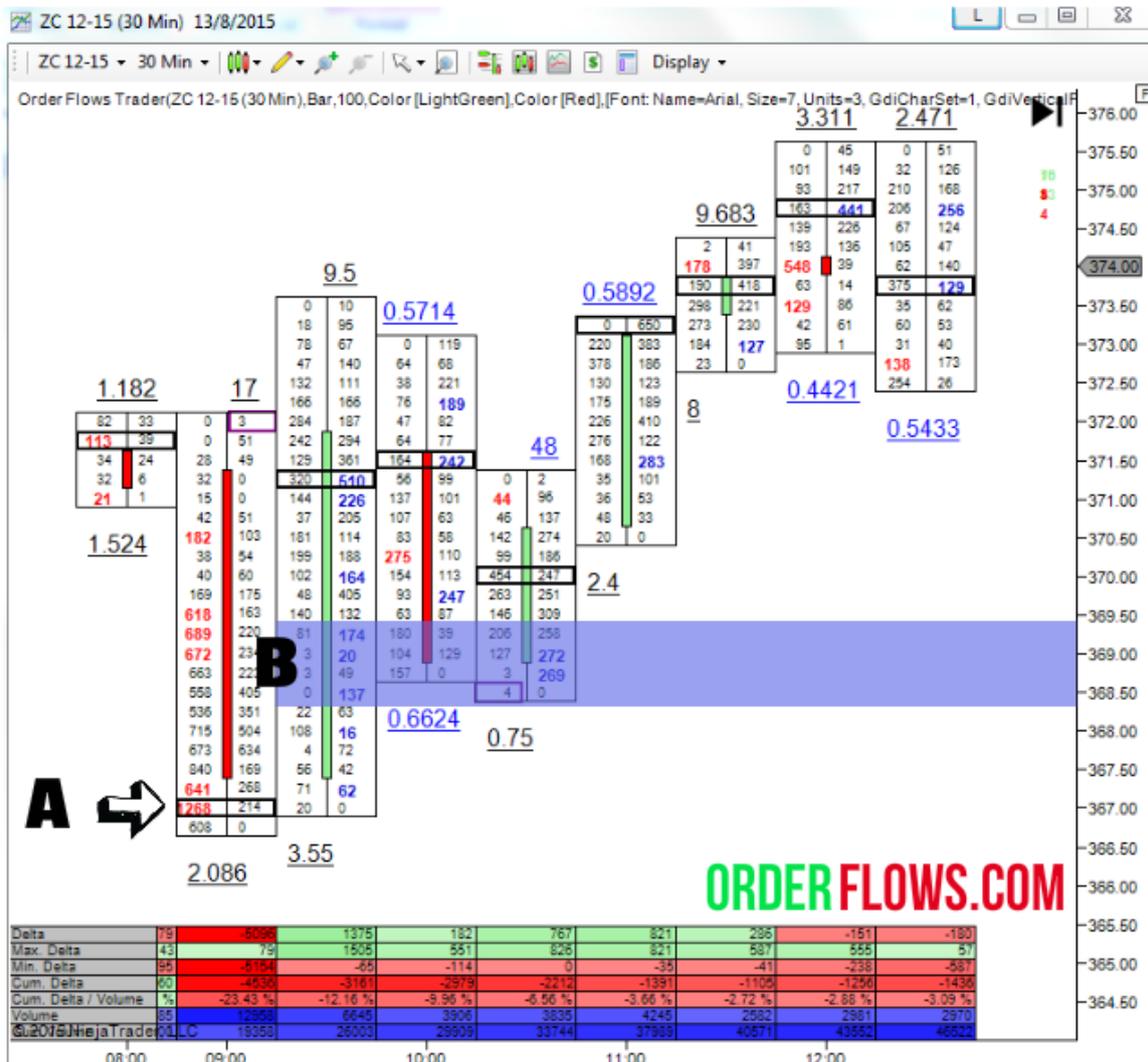
How often have you seen price action on a chart like the one on the right?

It is easy to look at a chart and see a long down bar and think “everyone is selling.” Do you want to sell also? The market can continue down, you see it all the time in the market. However, it is not uncommon for a long bearish down bar on a chart to be immediately followed by a long bullish up bar. But until you look at the next component, volume, you can't judge how strong the move is and more importantly who is behind the move.



Here you have a big down candle, followed by a big up candle, followed by a big down candle again. When you look at the first big down candle you say sellers are in control, which is not wrong but if the sellers are in control why did the market turn around so fast? It just did a complete 180 degree turn and even took out the high of the red down bar.

When you look at an order flow chart you have a better understanding of why the market turned around so fast at point A due to massive passive buying and why that when the market subsequently tried to sell off again it met support around 368.50 to 369.50 level at point B (previous level of aggressive buying imbalance). Market rotations like this happen quite regularly as you will see throughout this book.



Markets move because of the changes in supply and demand. We all know that. When there is more buying than selling, prices go up. When there is more selling than buying, prices go down. While it sounds simple

that is the textbook theory, but it is actually a little more complex than that.

Markets move up because there are no major sellers taking profits yet. The major buying should have already occurred early in the move by institutions. So until institutions start selling their positions out, the market keeps going higher. If institutional players are still expecting higher prices they will absorb selling that comes into the market. But they won't be buying just to support the market, they are buying until they are sure all the supply at these lower levels has disappeared.

Markets may move down not just because there are more sellers than buyers. It could very well be that there is just not enough buying to support the market on its way down. In a down market there is very little to hold up the market in terms of bids, as a result prices drop. This is one of the reasons markets drop much faster than they go up.

When the market is moving the best trades are to buy when buyers are buying and sell when the sellers are selling. In the days of pit trading, locals used to stand in the pit all day and could see when the institutional money would come into the market to move it. They locals joined in on the moves. This is not rocket science. The trading pits were filled with guys with only high school degrees or even college degrees. It doesn't take a PhD to know that when the market is moving is a good idea to move in the same direction.

Prices go up until:

1. Buyers become unwilling to buy.
2. Buyers run out of buying power.
3. Buyers are overwhelmed by sellers.

Prices go down until:

1. Sellers become unwilling to sell.
2. Sellers run out of inventory.
3. Sellers are overwhelmed by buyers.

A trader needs to be able to understand what kind of activity is moving prices. If sellers are pounding into bids and clearing them out, your position can get run over pretty fast, especially depending on who else is

there selling. You have to determine if it is better to be a buyer in a market going down or a seller.

Only an order flow chart can give a trader the insight into why the market turned around. Not all market turns will be as clear cut as the example above. But when they are you need to be able to react quickly to take advantage of the opportunity.

THE IMPORTANCE OF VOLUME

Volume is also an important part of a trader's arsenal but also is perhaps one of the least understood. Until now most analysis of volume has been on total volume. Order flow breaks down volume by the amount traded on the bid side and the amount traded on the offer side. Now traders can determine if the buyers were aggressive or passive and if the sellers were aggressive or passive. Price and volume looked at together will help the trader determine the current state of the market and if supply and demand is imbalanced.

Traditionally volume has been looked and analysed after the fact, not as it is happening. Generally volume would be plotted along the bottom and would be used to confirm a trend. Technical analysts will tell you that volume is a measure of the strength of the current price trend.



The problem that I always had when looking at volume in this simplistic, already rudimentary way was that you couldn't differentiate between volumes traded on the bid versus volume traded on the offer. This is

especially important on bars that look neutral, where the opened and closed at about the same level.

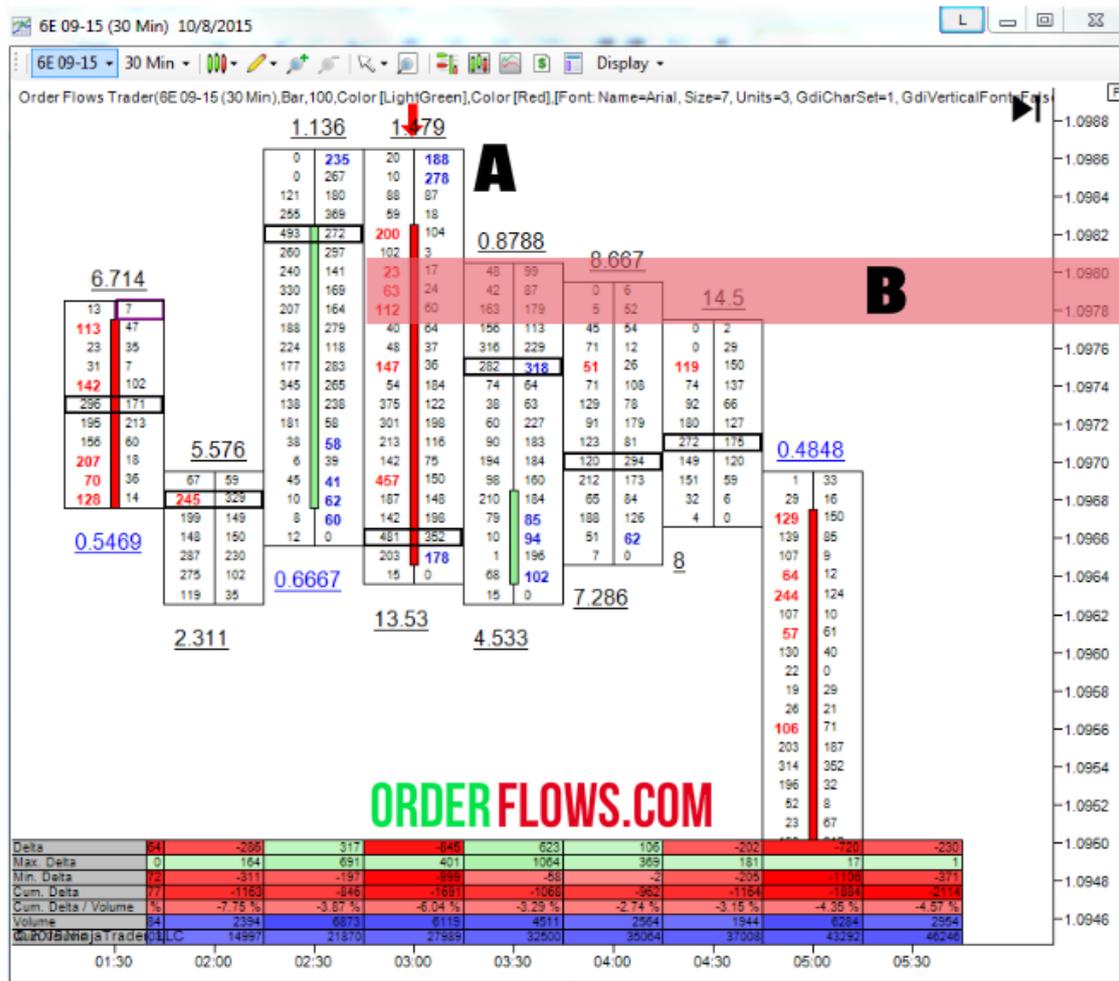
If you look at volume by itself, its meaning has little value because you don't know where price is relative to the amount of volume traded. Once you start to look at volume relative to price you begin to understand the momentum within the market. Volume is perhaps the most important piece of information when determining the strength of a trend. Markets move up, down and sideways over time and price.

In an uptrend, traded volume should be increasing on the offer side. This shows that buyers are being aggressive and buying all the available supply the market has to offer.

In a down trend, traded volume should be increasing on the bid side. This shows that sellers are getting rid of their supply to passive buyers.

In a sideways trading market the volume on both the bids and offers should be absorbed by the marketplace like a sponge.

Order flow volume analysis tells us the amount traded at a price during a time frame. When you start to look at the volume that has traded at subsequent prices you can determine if the market is strong or weak. Traditional charting methods only measure volume in regards to time. If you look at volume traded at price you get a much clearer picture of what is going on in the market.



When you look at point A, the internal volume trading in that bar screams at you that the buying is done. There is a big buying imbalance at the high 235 and 188 lots over the 2 time periods at 1.0987 and 278 lots buying imbalance at 1.0986, then the market sold off and there is 200 lots selling imbalance traded on the bid at 1.0982. A stacked imbalance of 3 levels of selling imbalances between 1.0980 and 1.0978. A few more selling imbalances appear in that bar. The market tried to rally on the next couple of bars but could not get past the stacked selling imbalance, before finally selling off dramatically. It is pretty amazing how stacked imbalances act as great levels for the market bounce off of. They are great areas for low risk entries.

Generally speaking when volume is low and the market is moving up, you know that the market is weak. This could be because the institutional participants are not buying in the up move because they know that higher prices cannot be sustained based on supply and

demand. Unless the institutions are participating in the up move, it probably won't last very long. If it is just retail money moving the market with little volume, that is not a good sign.

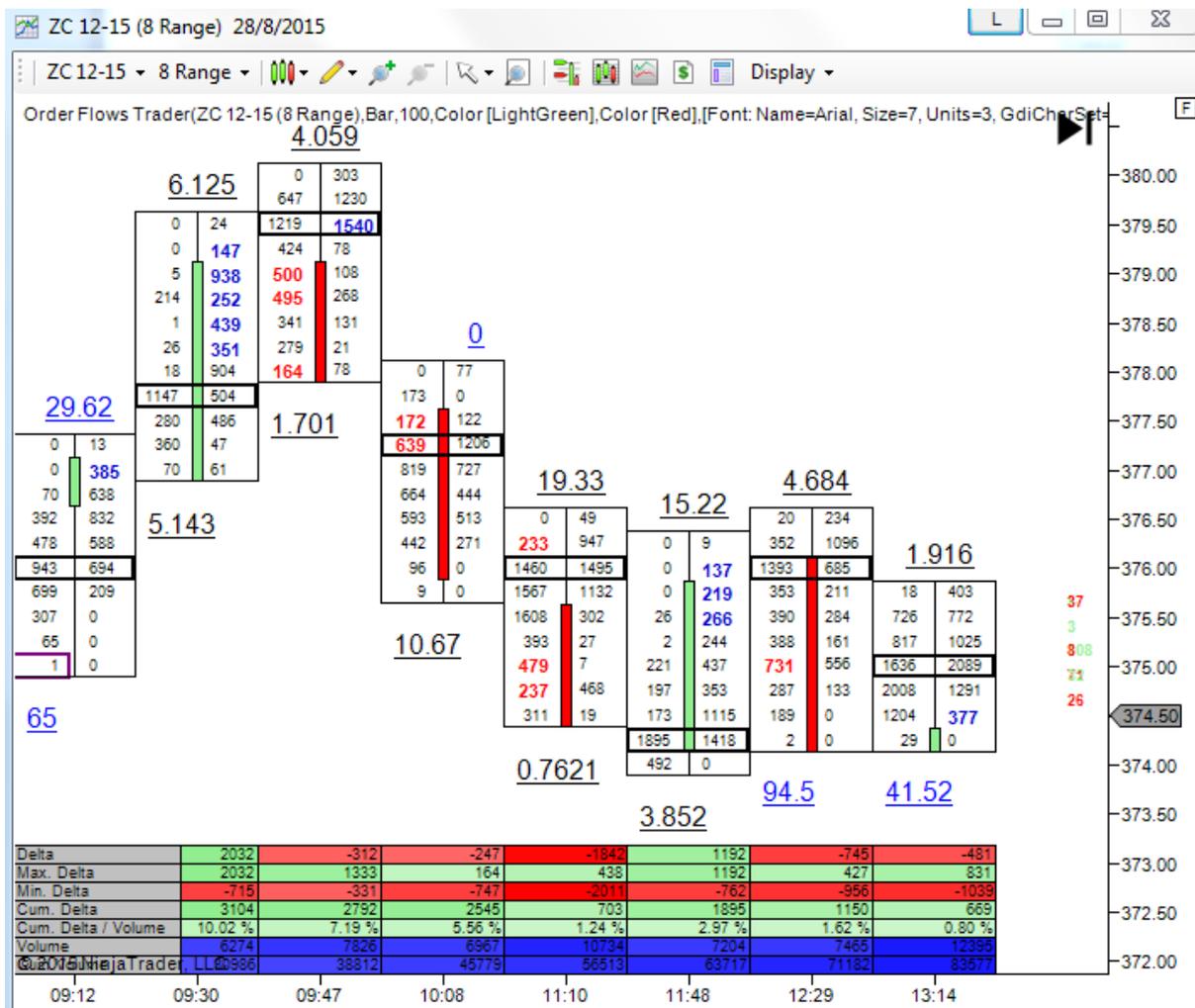
For a trend to be down there would need to be institutional participation which would show up in the volume. There is ample supply in the market, so there will be strong volume on the move down as the sellers will be offloading their supply to buyers. During down trends you will see small, temporary up moves within the down trend. Watch the move and check the volume. Institutions have been bearish the markets and selling, you won't see them buying into a weak market just because price bounced a little bit. When you notice the volume start to diminish on a down trend the selling pressure by institutions is subsiding. While the market may continue to fall be aware that it could quickly turn and rise momentarily due to lack of supply. For a market to turn from a downtrend to an uptrend, buyers would need to come in and take control from the sellers which usually equates to a rise in volume.

THE IMPORTANCE OF DELTA

Delta is a term used by order flow traders to define the net buying or selling that took place for a given bar. It is calculated by using tick data and seeing who initiated the trade, either the buyer or seller. If more sellers initiated the trade, then the delta is considered negative. If more buyers initiated the trade, then the delta is considered positive.

The reason delta is important is because you can determine the strength of a trend based on volume. As price trends higher you would want to see positive delta which is a sign of buying driving the price. The opposite would be true for a market trading lower, there should be sellers driving the price which would translate into negative delta.

Visually, delta measurements look like this:



Delta – delta for the bar

Max. Delta – Maximum delta in the bar

Min. Delta – Minimum delta in the bar

Cum. Delta – Cumulative delta of the day

Cum. Delta/Volume – Cumulative delta divided by volume

Volume – Volume for the bar

Cum. Volume – Cumulative volume for the day

If a market is consolidating or range trading, the delta number generally will be a low number, depending on the market it could be less than 100 when normally it is over 1000, and will bounce around back and forth between positive and negative.

There will be times when the delta is very close to zero which is a sign that there is an almost equal amount of volume trading on both sides of the market. This is called absorption and is usually a place where supply and demand can shift and a new trend start.

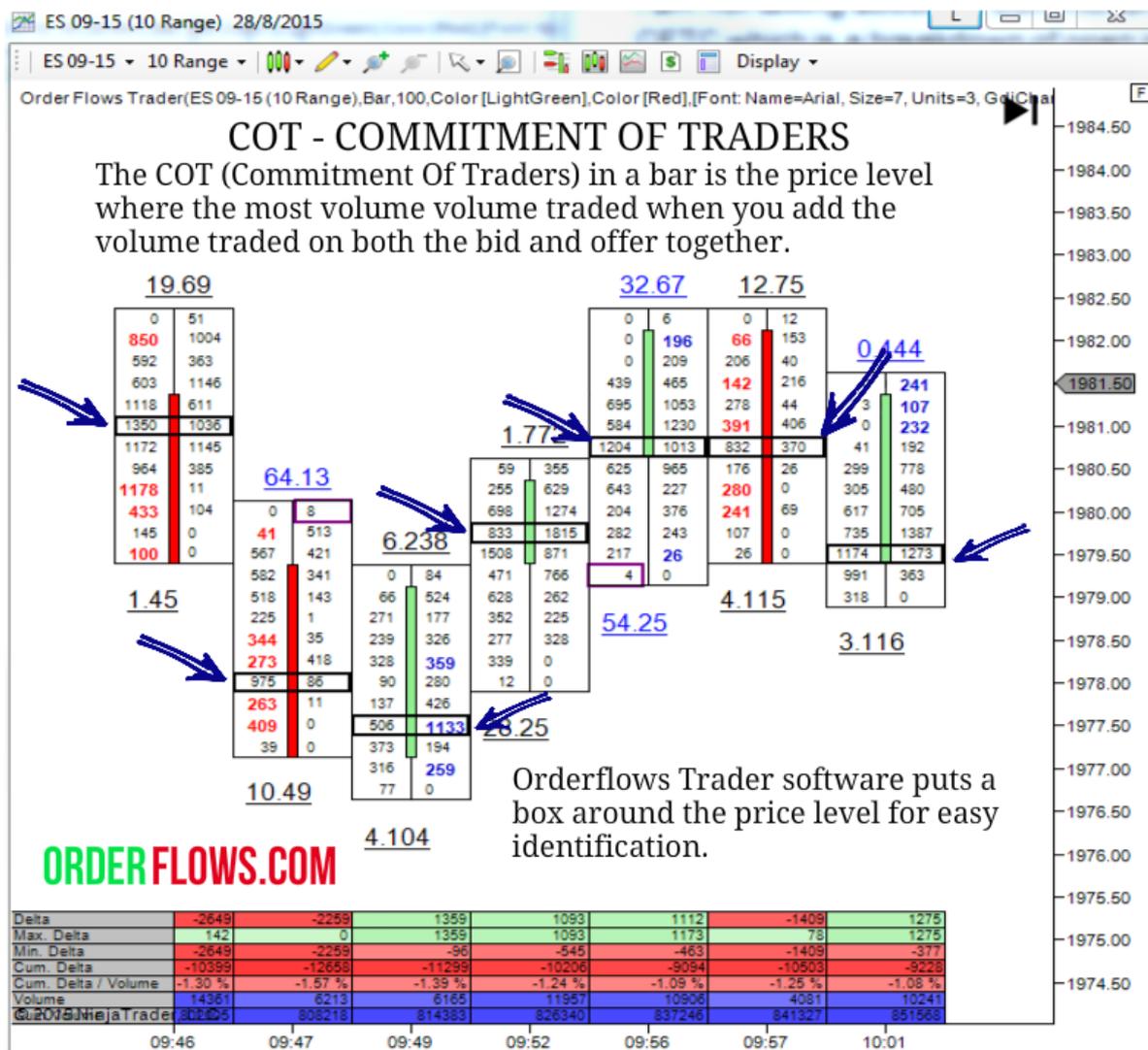
Delta is also relative to the type of chart and what part of the trading day you are looking at. If you have a 1 minute chart up, the delta can be very low just because there might not be much trading going on. The same can be said if you are trading in the evening or early morning sessions, before the old regular trading hours start. Those times of the day generally have little volume trading so delta will be small.

If you are looking at a 10000 volume E-mini SP chart and the bar has a delta of 100, that would be more important than a 5 minutes chart where the total volume traded was 1500 lots and the delta was 100. You have to take the delta in context to what kind of chart you are using.

COT – COMMITMENT OF TRADERS

I am not talking about the Commitment Of Traders report put out by the CFTC which is a breakdown of open interest in futures markets. That report has its own uses not covered here.

With order flow analysis footprint charts, each price bar has a COT or Commitment Of Traders in it. This is the price level within a bar that the most traded volume occurred on both sides, where the most trade was committed within the bar. Remember order flow analysis looks within the bar. With a regular bar chart or candlestick chart there is no way of knowing this.

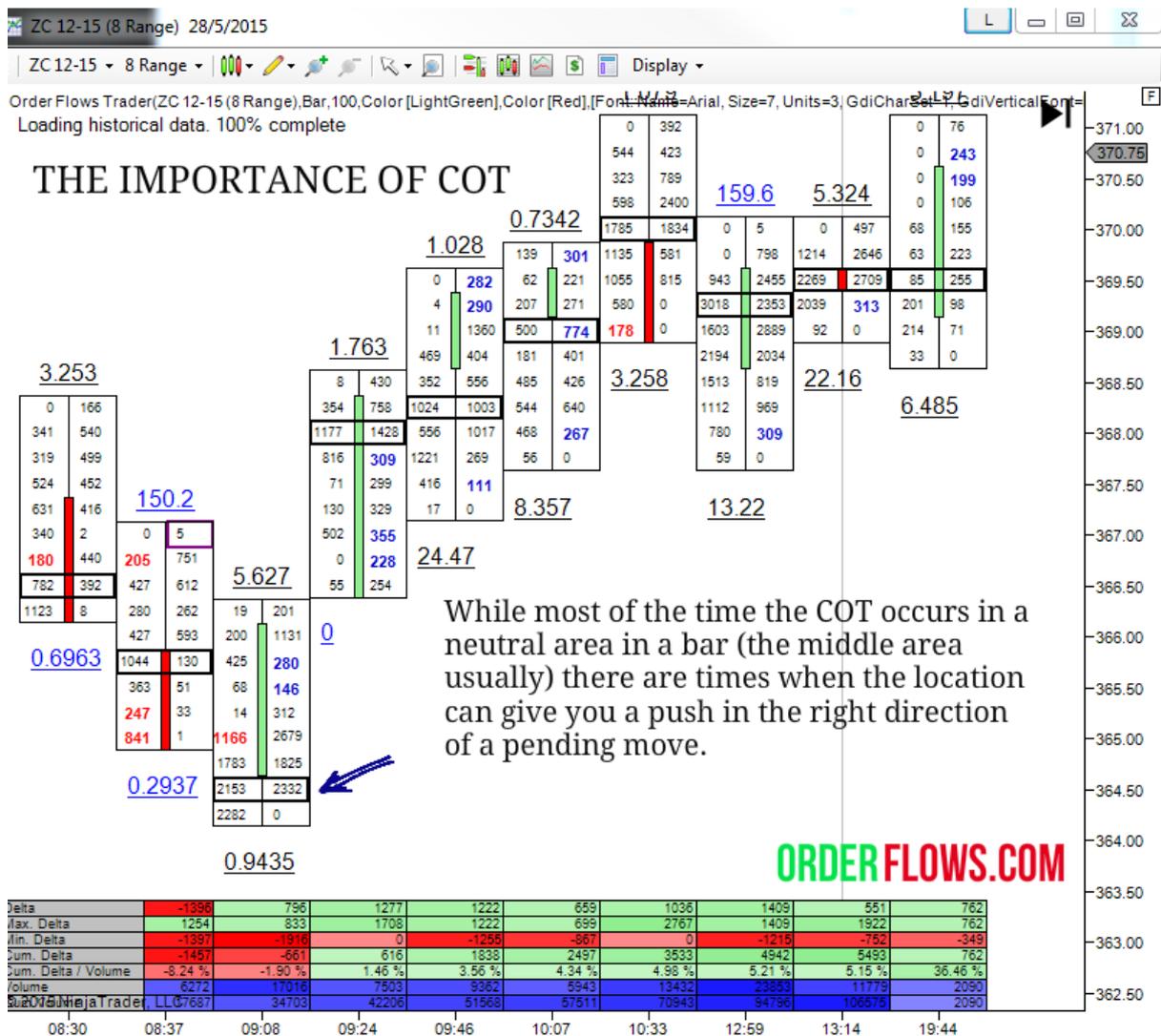


The Orderflows Trader software package will put a box around the COT for easy visualization on your chart.

With the COT you can see where the most volume occurred, whether it was near the top, middle or bottom.

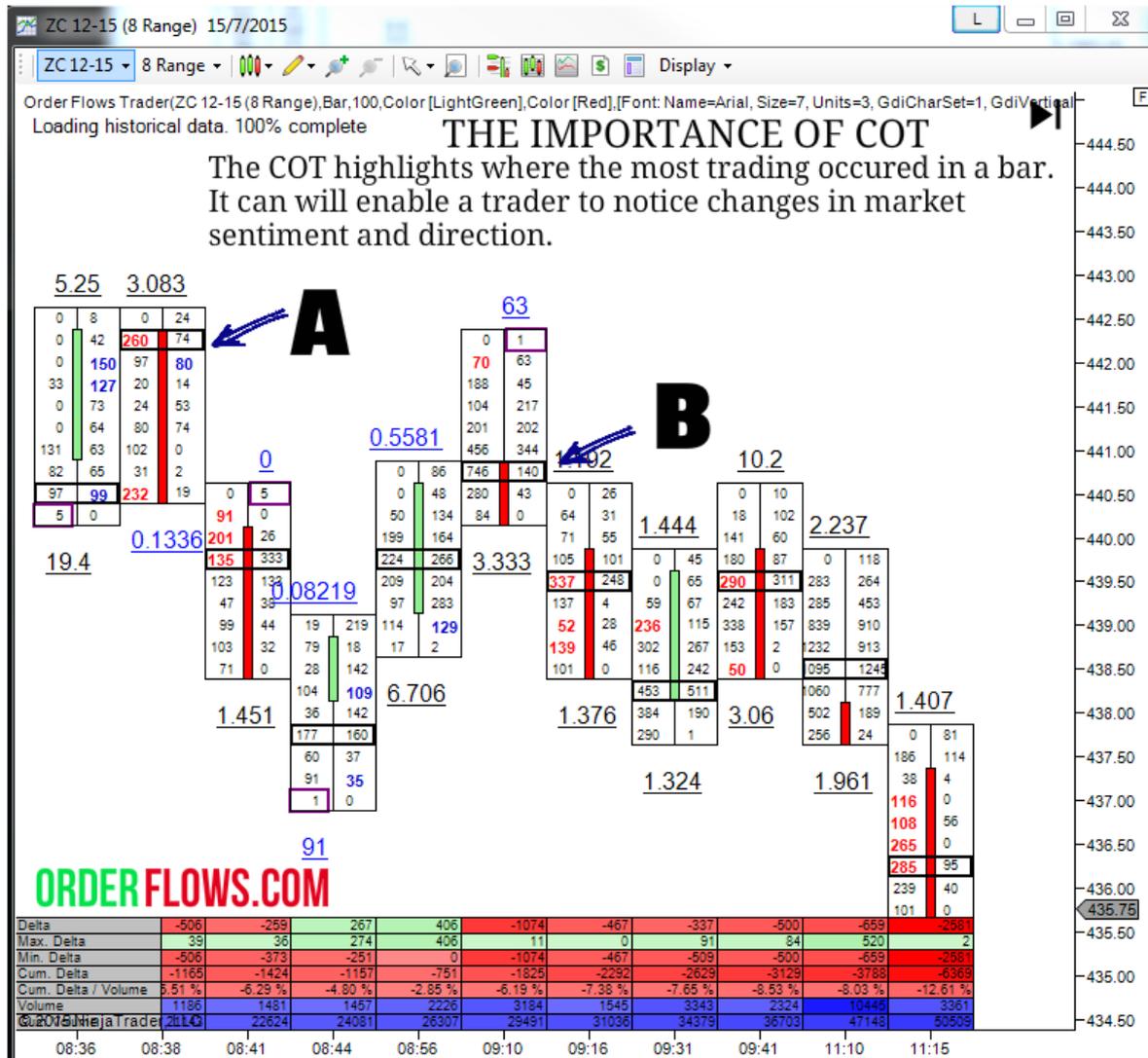
The COT is important because it gives you clues as to what the market forces were up to within the bar. It can tell you within the bar where demand has overcome supply and vice versa as one side will be dominant.

The COT tells you something that traditional bar or candlestick charts cannot. Depending on where the COT is you can get a quick glimpse where the most activity was which in turn can give you hint to anything out of the ordinary.



In the above chart, the COT occurred near the low of the bar which closed on near its high. When the most volume trades near the low of a bar that closed higher, it is usually a sign that there are strong passive

buyers. In this case we see strong passive buying as well as buyers willing to buy all the supply other sellers were offering.

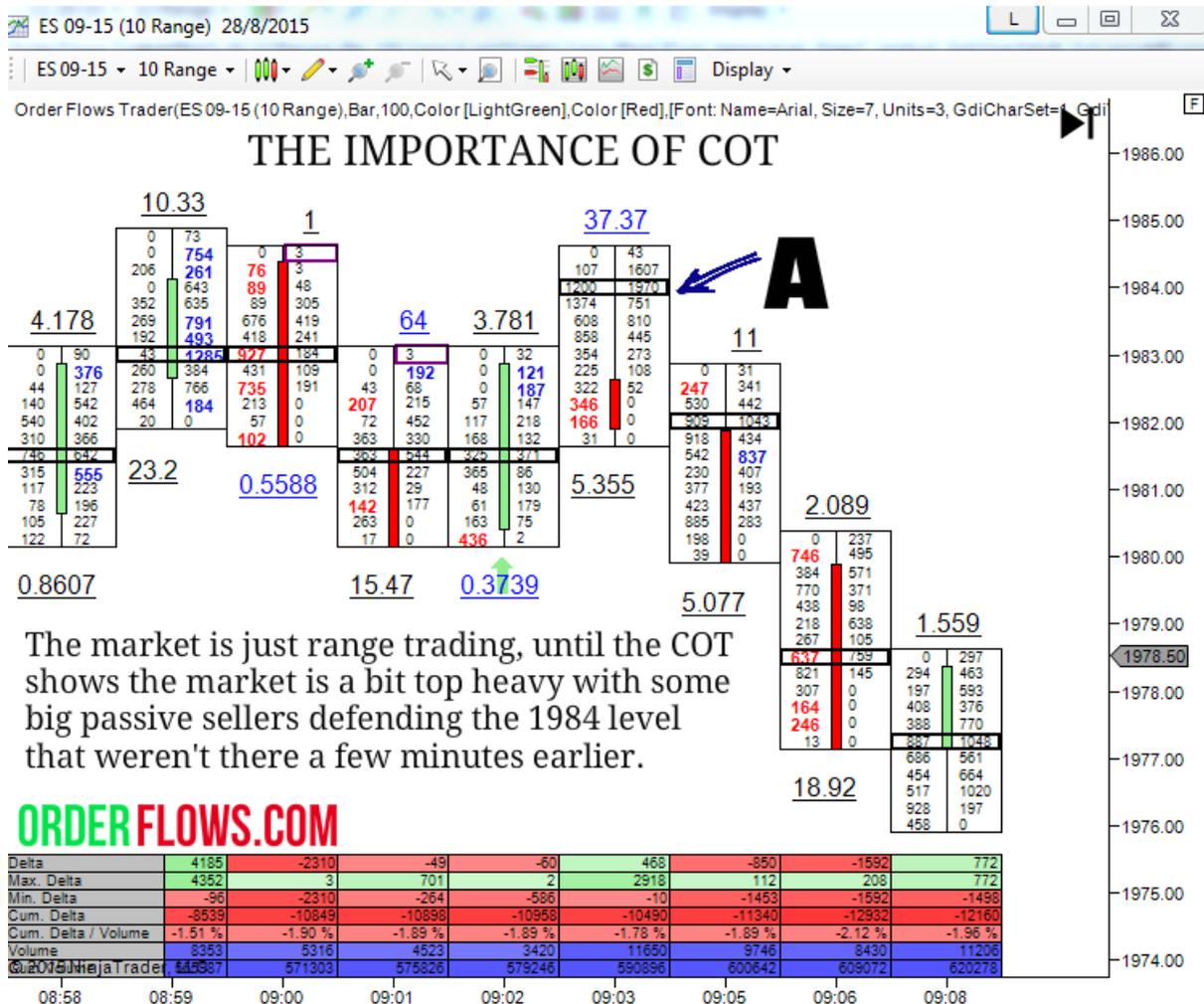


In the above example, at point A, the COT occurred near the top of the bar and the bar closed lower. This tells me that there were interested buyers near the high, but they were met with just as many interested sellers and the sellers took control of the market and moved it lower.

At point B. The market tried to rally and lost steam as the buyers just dried up as evidenced by only 1 lot trading at the high, then a selling imbalance just below the high of the bar and the market sold off and closed on its low. The COT appears near the bottom of the bar and there is a big buyer that was aggressively sold into causing a selling imbalance. Just above the COT there is also a big number on the bid that was sold into, the market participants just ate through the bids and

closed on the low of the bar. Also there was not much buying in the bar. When I see the COT near or at the bottom of a bar that closed on its lows that is usually a sign or the market going lower since there were active sellers to move prices lower.

Generally speaking when the COT is in the middle of a bar, it is market neutral. If it appears at the top of a bar and the bar closed lower that is a bearish sign as a lot of trade was facilitated at the high but the market couldn't trade higher, all the buyers were met big sellers. If the COT appears at the bottom of the bar and the bar closed higher, it is generally a bullish sign as all the selling pressure was met with buyers. There are many different combinations of COT locations.



In the example above, the market is just sort of going nowhere. It would go up a couple of points then come down a couple of points. The COT's are appearing mostly in the middle of the bars. Then at point A, all of a

sudden there are some big new passive sellers that put in offers at the 1984.00 and 1984.25 level which were bought up but the market couldn't go higher and actually closed lower and there were a few selling imbalances near the low of the bar. The COT is near the top of the bar, yet the bar closed lower. This is my clue that the market is primed to go lower which it does.

The COT by itself is not an indicator, but can be used for confirmation of a move. I like to look at the COT location in a bar when I am lost on the direction of the market. If the market is just range trading I look to the COT for some sort of sign as to the direction or potential direction.

DIFFERENT TYPES OF BUYERS AND SELLERS

Every book on futures trading says that the market is a zero sum game. For every winner there is a loser. This is true, but not everyone trades futures for the same reasons.

It is a common belief that everyone is trading the futures market to make a profit. That is not always the case, even though the overwhelming majority of trading is done to make profits. Futures trades could be put on as a hedge. When someone is long an underlying commodity, they sell the futures to hedge their price risk. Farmers have been doing this for centuries as a form of insurance. If the futures position loses money, they don't worry so much. Just like with life insurance, you don't feel bad when you don't die and your family can't claim the money.

There are many other reasons people enter into trades in the futures markets which are not for the sole purpose of making money in and of itself or without directional bias. A trade can be part of a statistical arb trade where a trader is long/short different markets trying to take advantage of miniscule pricing differences. A trade can be part of a spread between correlated markets. There are many reasons too numerous to mention in this book alone. But each reason helps to explain why a market can facilitate trade on both the bid and offer and not move much.

So as you can see there are several different types of buyers and sellers. Being able to distinguish between them will help you understand what the market is showing you as to its direction.

What does it mean when there is an aggressive buyer? It means that someone bought the offer. They paid the market price to get into or out of a position.

What does it mean when there is an aggressive seller? It means that someone sold into the bid. They sold at the market to get into or out of a position.

What does it mean when there are passive buyers? It means they bought at the bid price. An aggressive seller sold it to them.

What does it mean when there are passive sellers? It means they sold at the offer price. An aggressive buyer bought from them.

Generally I find that aggressive buyers and sellers are those who need to get into a position. We may not know the reason these participants are getting into the position so aggressively, but when they are it leads to imbalances which is a sign of a market getting ready to move.

Passive buyers and sellers are less aggressive, but just as important. They provide support and resistance to the market place. They are the buyers at the low and sellers at the high. When a market cannot get past a big passive buyer that is a signal the market can be ready to turn.

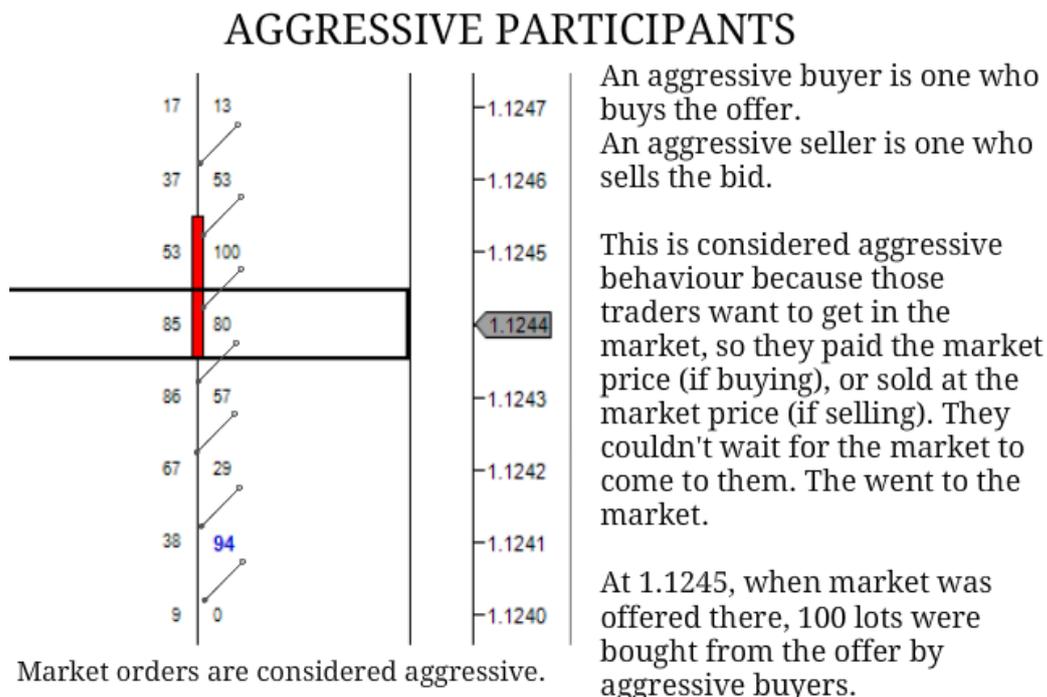
AGGRESSIVE PARTICIPANTS

In the old days when a market would move without a clear reason, brokers would say “there are more buyers than sellers” or vice versa. However the problem with that is that it is just not true. There are not more buyers or sellers. What you have is different types of buyers and sellers. There are aggressive buyers and sellers and there are passive buyers and sellers. Every bar is made up of both aggressive buyers and sellers as well as passive buyers and sellers.

Throughout this book you will see the words “aggressive buyers” and “aggressive sellers.” When a trader is being aggressive they are hitting the bid or lifting the offer. They are essentially paying the market price to get into the market. Aggressive participants trade into passive participants resting limit orders.

Aggressive buyers and sellers are represented by selling at the bid or buying at the offer. They are willing to sell or buy at the market price because they want out of they want in.

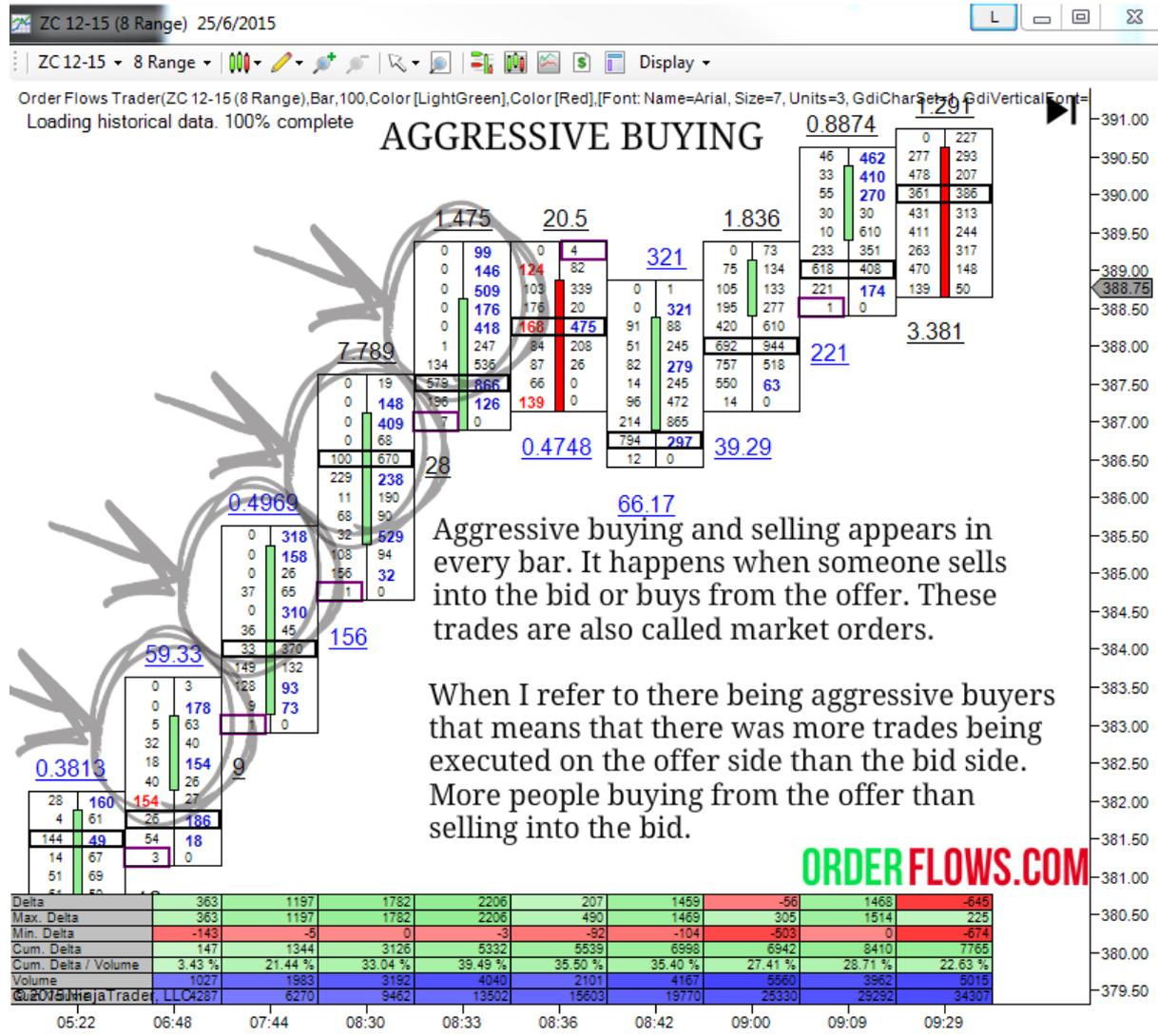
An aggressive buyer is someone who is will to pay what the seller is asking. An aggressive seller is someone who is willing to sell at a price the buyer is bidding.



Market orders are considered aggressive.

Aggressive participants trade with passive participants.

When you see big aggressive buyers or sellers come in to the market, you should watch what the market does afterwards. Does the market rally? Does it sell off? Does it hesitate? Does it get absorbed? When there are big aggressive buyers the market will typically rally. When there are big aggressive sellers the market will typically sell off. If the market does not do what it is supposed to do, the contrary move is likely to be magnified.

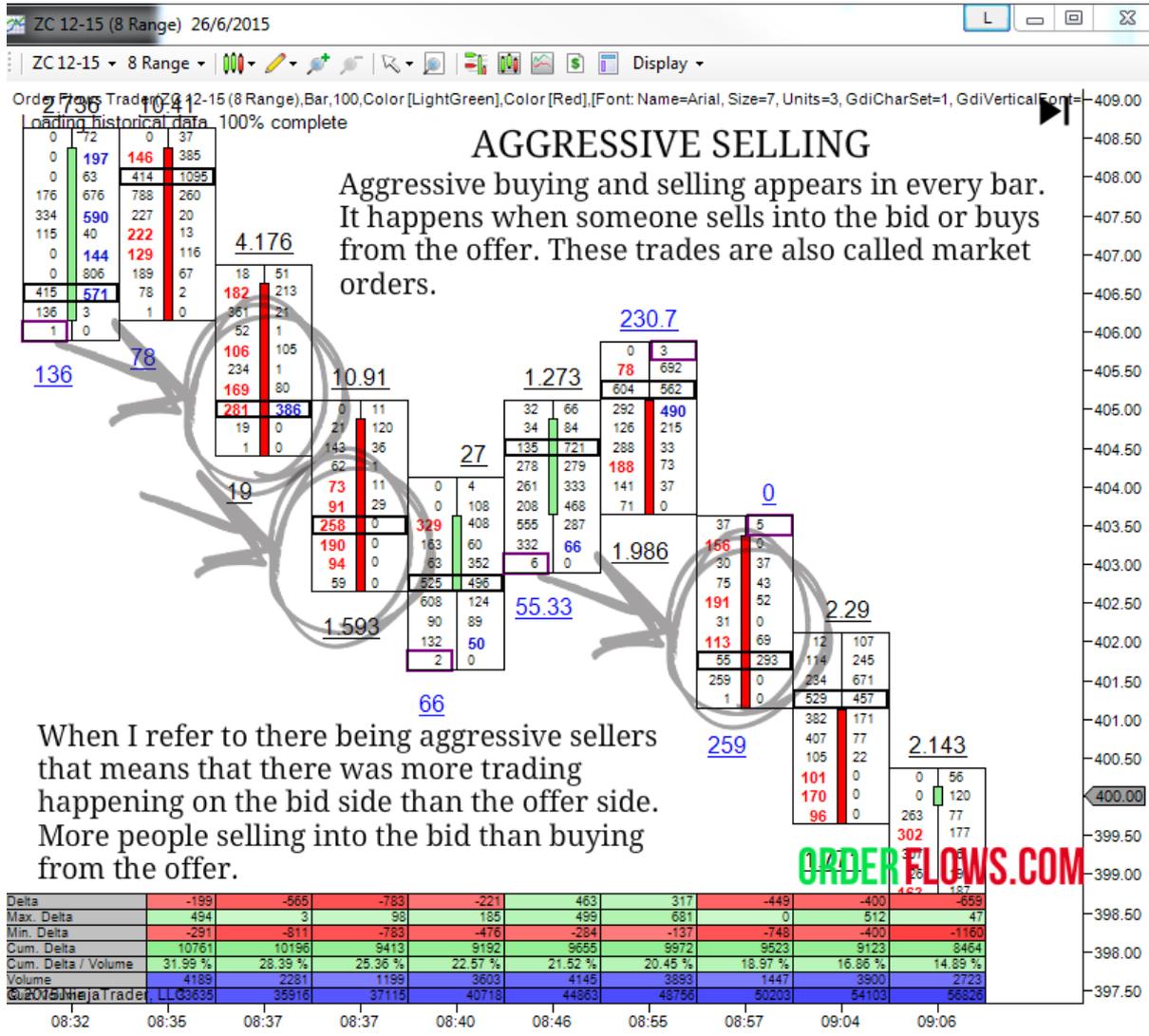


Aggressive buying and selling appears in every bar. It happens when someone sells into the bid or buys from the offer. These trades are also called market orders.

When I refer to there being aggressive buyers that means that there was more trades being executed on the offer side than the bid side. More people buying from the offer than selling into the bid.

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It is easy to confuse aggressive buying and selling with buying and selling imbalances. The difference is for every trade there is either an aggressive buyer and passive seller or an aggressive seller and passive buyer, one participant will be aggressive and one will be passive; a buying or selling imbalance doesn't have to happen. An imbalance occurs when the buying/selling ratio is above a certain level. There is a whole section devoted to buying and selling imbalances in this book.

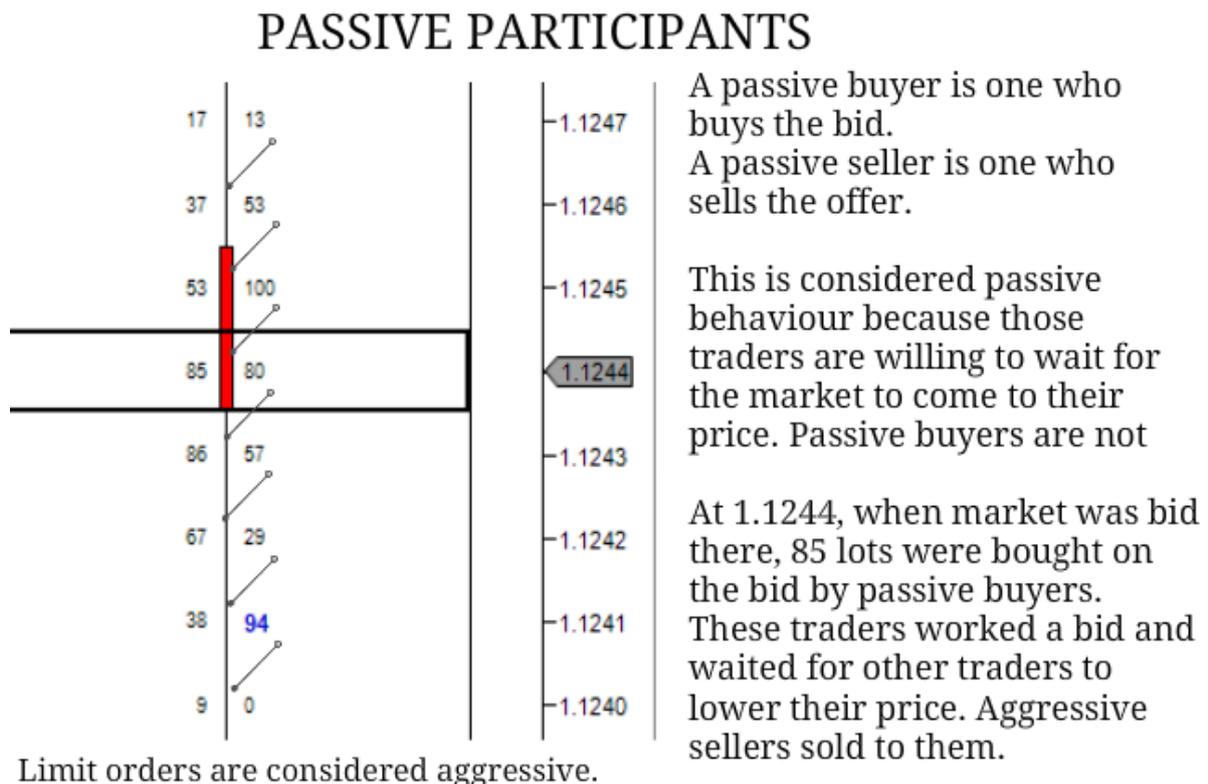


By itself just looking at aggressive participants and trying to determine market direction is a bit difficult because in every trade there is an aggressive participant and a passive participant. You have to take the information in context to the rest of the market.

Of course every buyer has to be met by a seller and that is the subject of the next chapter – passive participants.

PASSIVE PARTICIPANTS

Passive participants are those who are willing to sit on the bid or sit on the offer to get into a trade. They are not moving their price to get into the market. They have decided that at a particular level they want to buy or sell and are willing to sit there until they get filled. Passive participants will enter the market on limit orders. Aggressive participants will trade into passive participants limit orders.



Passive participants trade with aggressive participants.

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Passive buyers and sellers are represented by limit orders. They let the market come to them. So in the above picture at 1.1244, 85 lots were bought by passive buyers, people just sitting on the bid. 80 lots were sold by passive sellers, it was bought by aggressive buyers. At 1.1243, 86 lots were bought by passive buyers, the people that sold it to them were aggressive sellers, because they had to go down in price to meet the bid price; 57 lots were sold by passive sellers at 1.1243, sellers who were working an offer at 1.1243.

A passive buyer is someone who is willing to buy at his bid price. A passive seller is some who is willing to sell at his offer price.

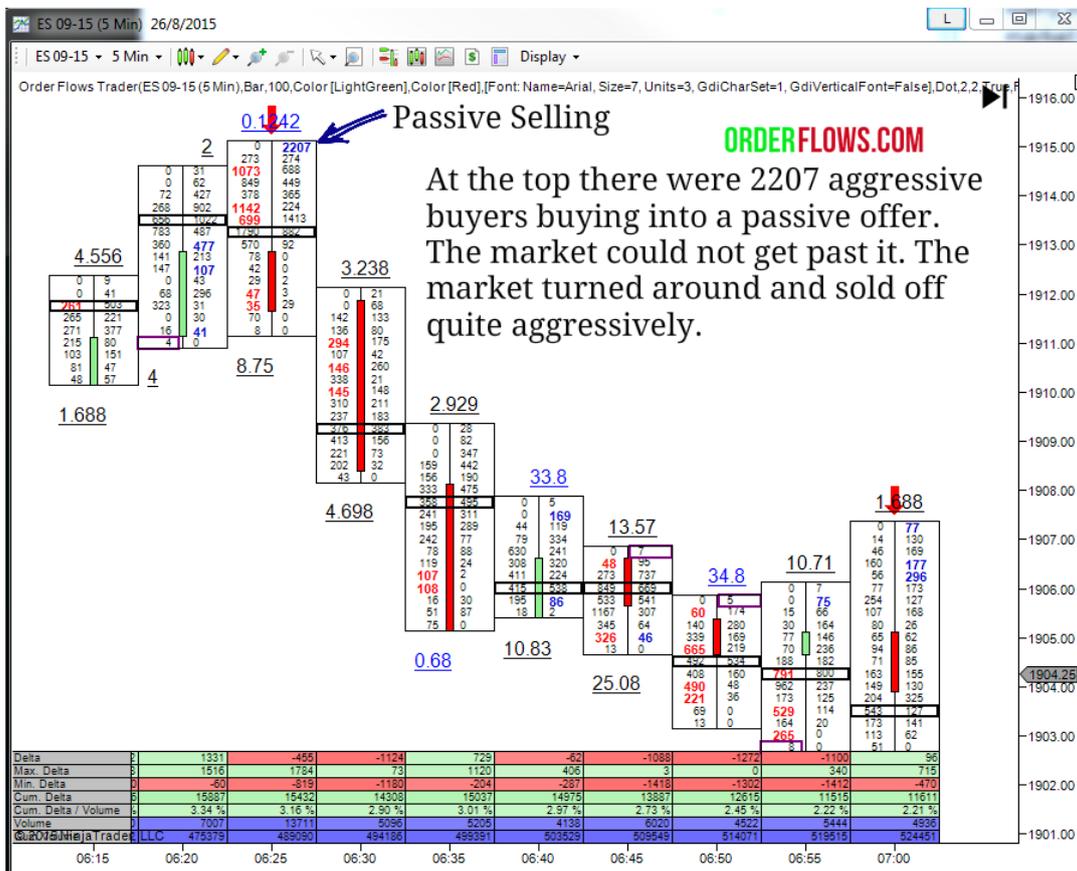
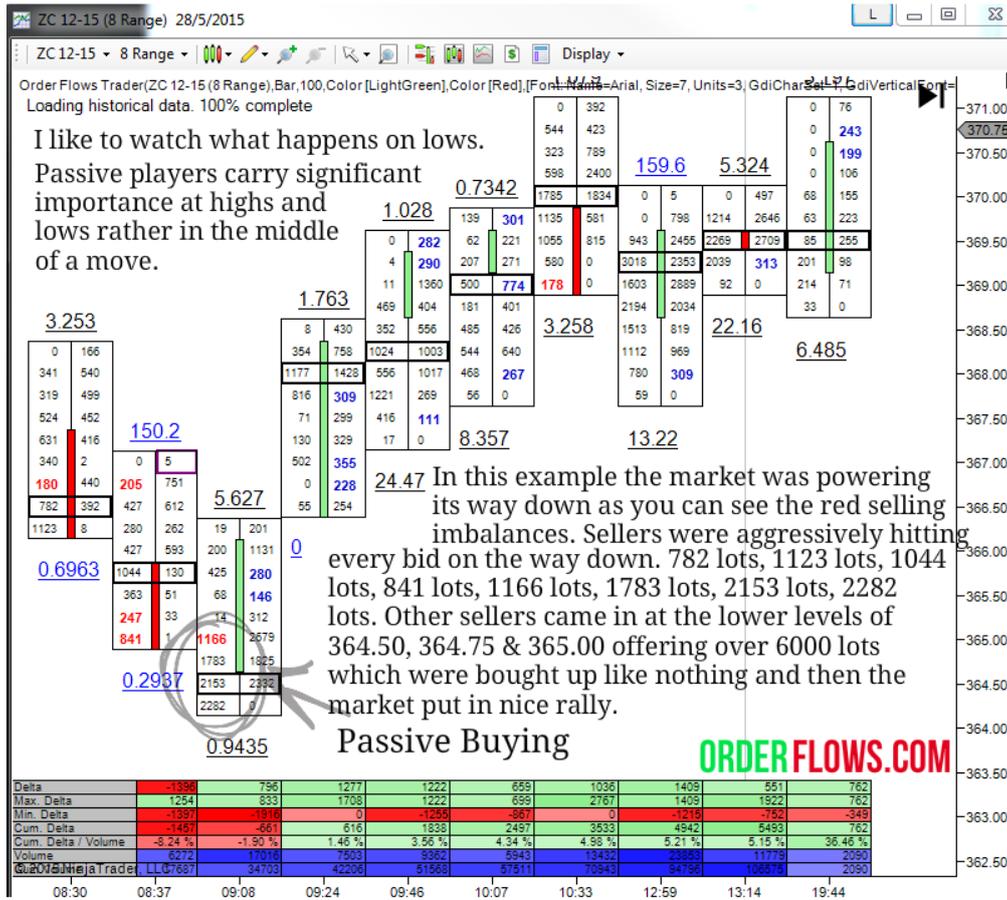
In other words, when you look at the market quote:

393.50 bid / 393.75 offer
393.50 bid for 500 contracts / 393.75 offer for 200 contracts
The 500 contracts on the bid are passive buyers
The 200 contracts on the offer are passive sellers

If someone one is working a bid for 10 contracts at 393.50 and decides to just go ahead and buy his 10 contracts at the market price of 393.75 he is now consider an aggressive buyer. The opposite is true if a seller working an offer at 393.75 decides to sell at the market price of 393.50, he has become an aggressive seller.

While most traders like watch what the aggressive participants are doing, keeping an eye on the passive participants can be extremely profitable as their levels can often times signify major turning points in the market. Passive participants are usually institutions who can help set the price highs or lows. When price gets too cheap they step in and buy everything. When price gets too high they sell as much as they can. When you see huge numbers that traded on the bid side at a low or huge numbers traded on the offer side on a high these are usually good indications of institutions passive participants.

I like to see big passive participants at highs and lows rather than in the middle of a move.

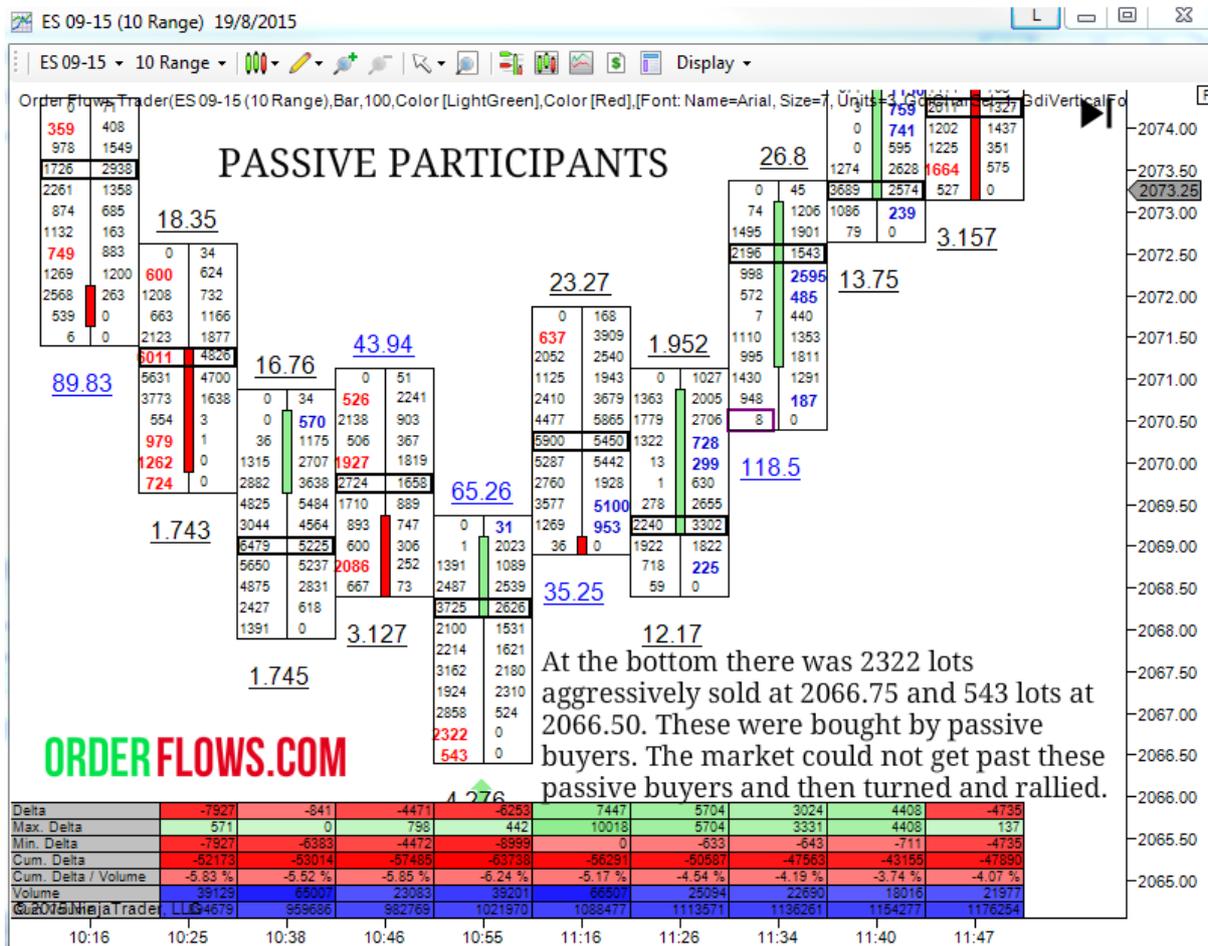


THE IMPORTANCE OF AGGRESSIVE AND PASSIVE PARTICIPANTS

When the market starts to move, it takes market orders to push the price higher or lower. Limit orders don't move the market. For the market to go up traders have to buy at subsequently higher prices. For the market to go lower traders have to sell at lower prices. The market has to work through levels of passive buyers or sellers.

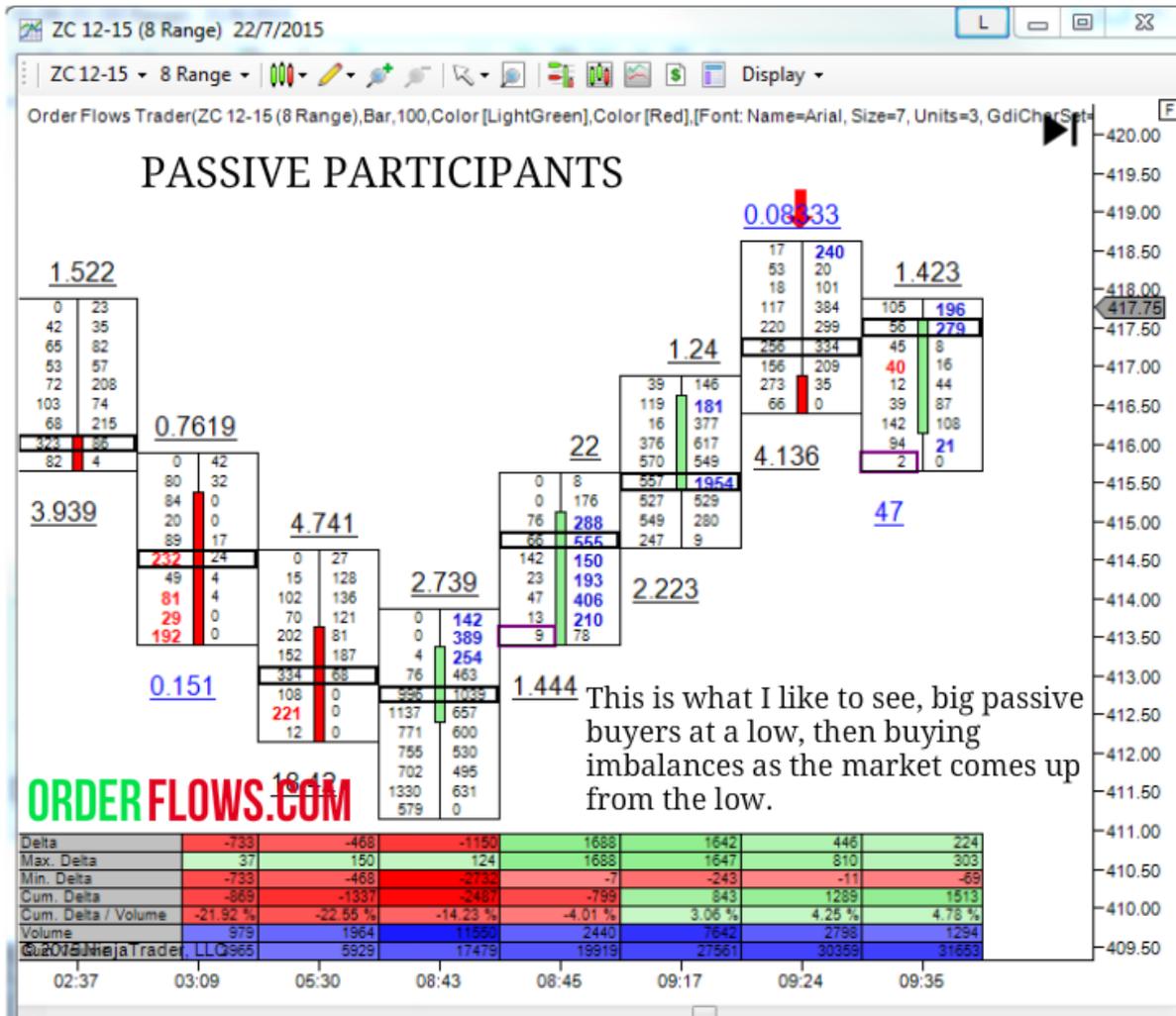
Every trader knows that certain price levels are important in terms of supply and demand. By seeing the volume that traded at that particular level and even how the market reacted around the level, a trader can determine if the level will hold or not.

Many trading "gurus" teach that declining volume always precedes a market top or market bottom as if it is an immutable law. In school book theory yes it may be true, but in reality it is not always true as evidenced in the order flow chart. You can have heavy selling at market bottoms and market tops, almost as if the market hits a wall and turns around in the opposite direction.



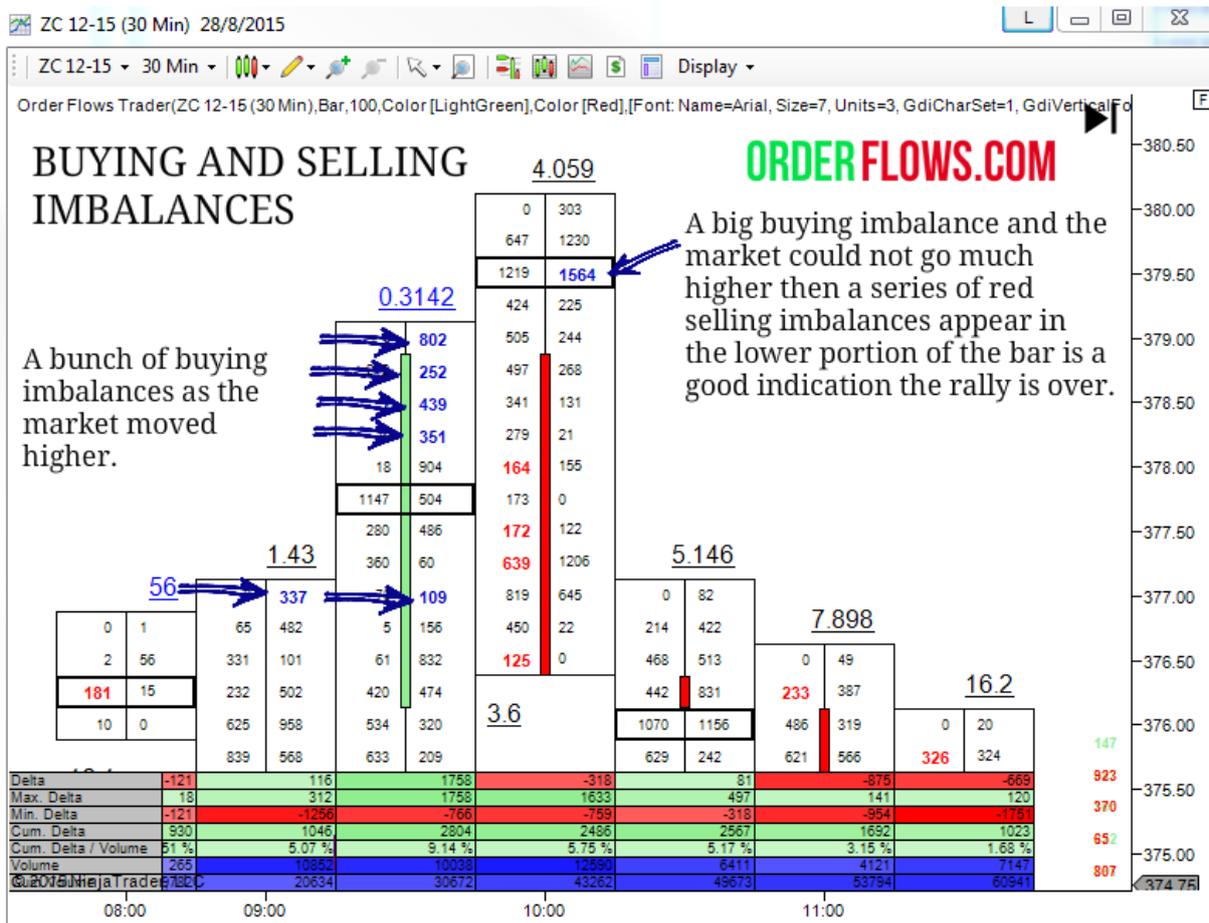
Think of these levels as lines in the sand. You do not want to cross that level without good reason or else you will find yourself in trouble.

A trade looks more appealing if there is a big volume number that supported the market than just an average number. These trades don't happen every day but when they do they are pretty reliable indications of market bias, at least in the short term.



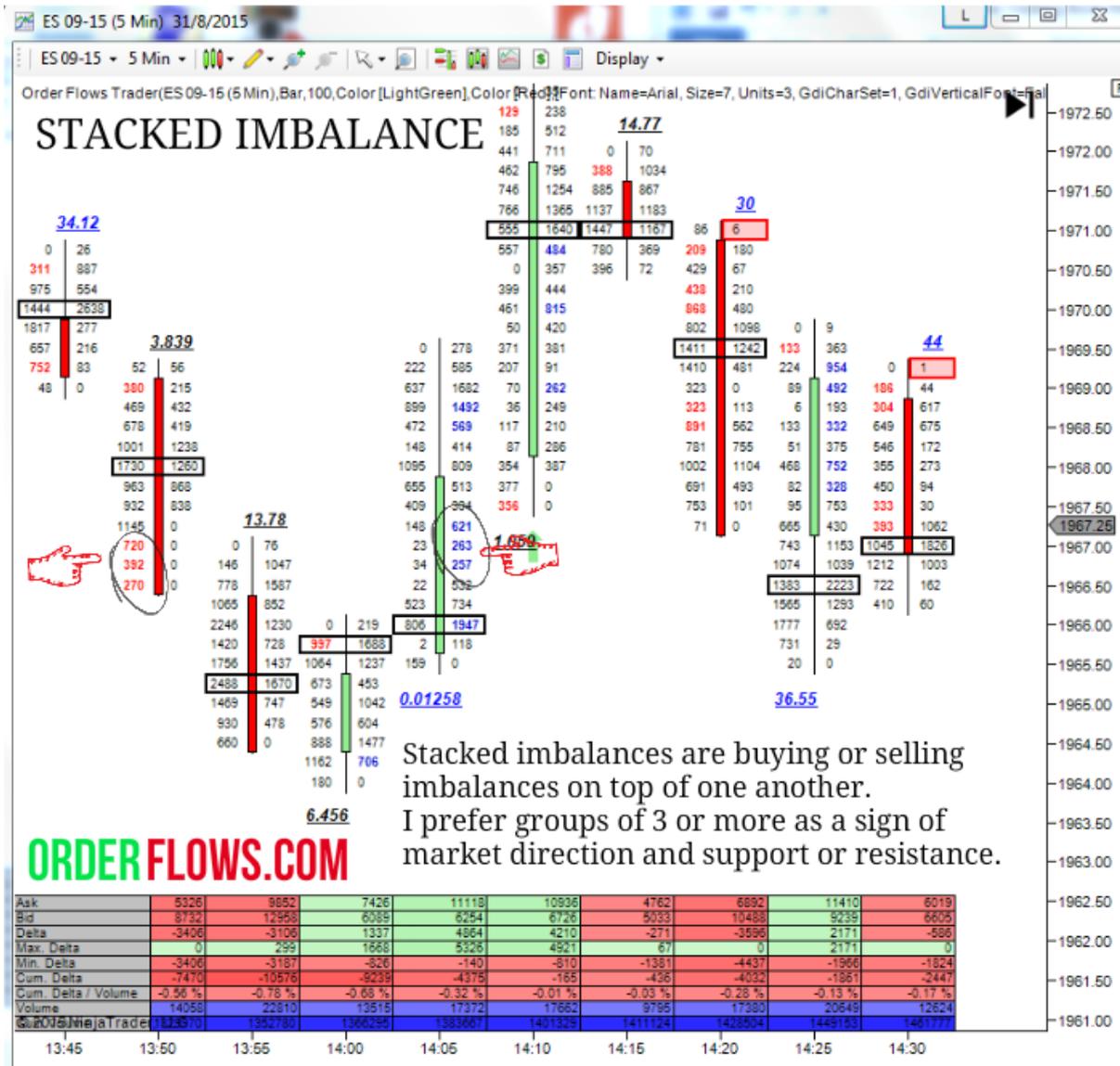
When an imbalance happens in supply and demand that is where trading opportunities appear. When big buyers come in and the market can't rotate up then look for a change in bias. The opposite is true when big sellers come in and the market can't sell off, be on the lookout for a change in bias.

The beginnings of a trend as well as ends of a trend are often marked with market imbalances caused by aggressive participants. This shows that participants are anxious to get in the market and large volume enters the market and prices move quickly.



STACKED IMBALANCE

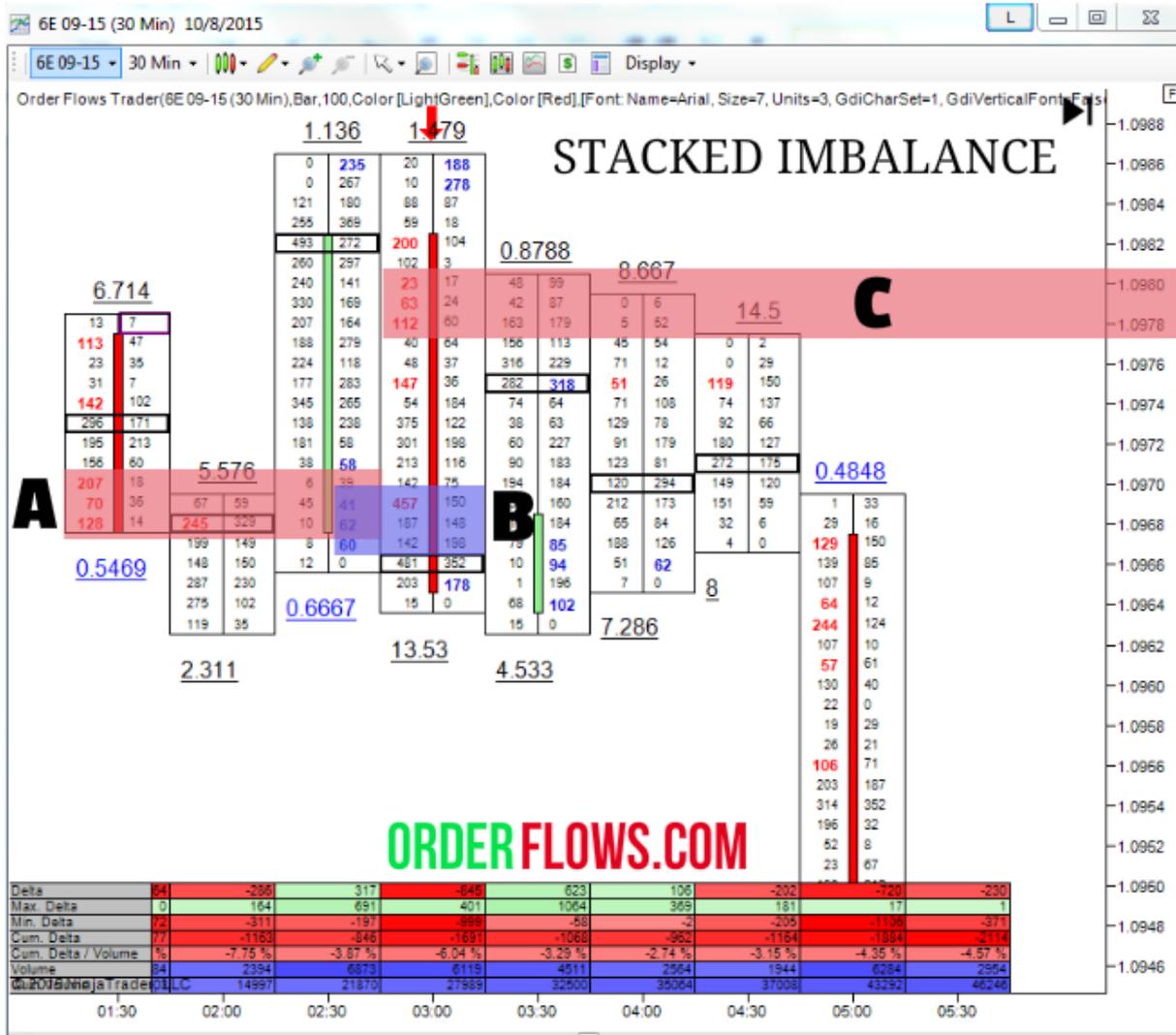
Stacked imbalances are important levels to look for when initiating a position. When you get stacked imbalances of 3 or more on top of one another it is a good sign of strong pressure in the market and that the market will continue in that direction. It acts as support and resistance.



Stacked imbalances are buying or selling imbalances on top of one another. I prefer groups of 3 or more as a sign of market direction and support or resistance.

The reason stacked imbalances are good levels of support and resistance as they are levels where the market was aggressively sold into a bid or an offer was aggressively bought into. In theory these stacked imbalance levels are levels where participants aggressively wanted to get into the market, so when the market retests those levels, the same participants may appear again.

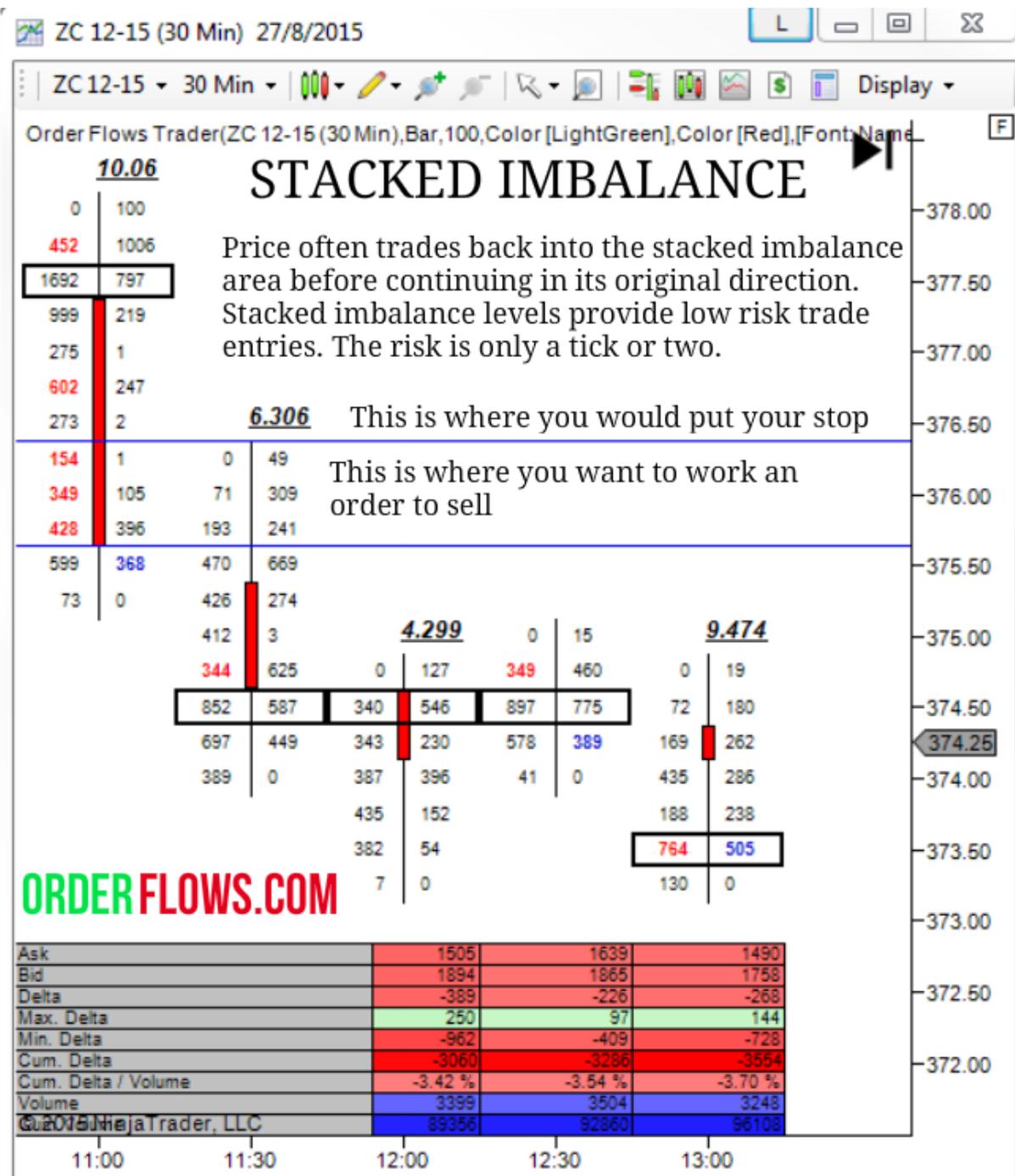
The beauty of stacked imbalances is that they make great entries for low risk trades. Quite often price will retrace back into a stack imbalance zone before continuing in the direction of the stacked imbalance. The stop placement is very easy, it is just outside of the stacked imbalance zone, literally a tick or two outside the stacked imbalance.



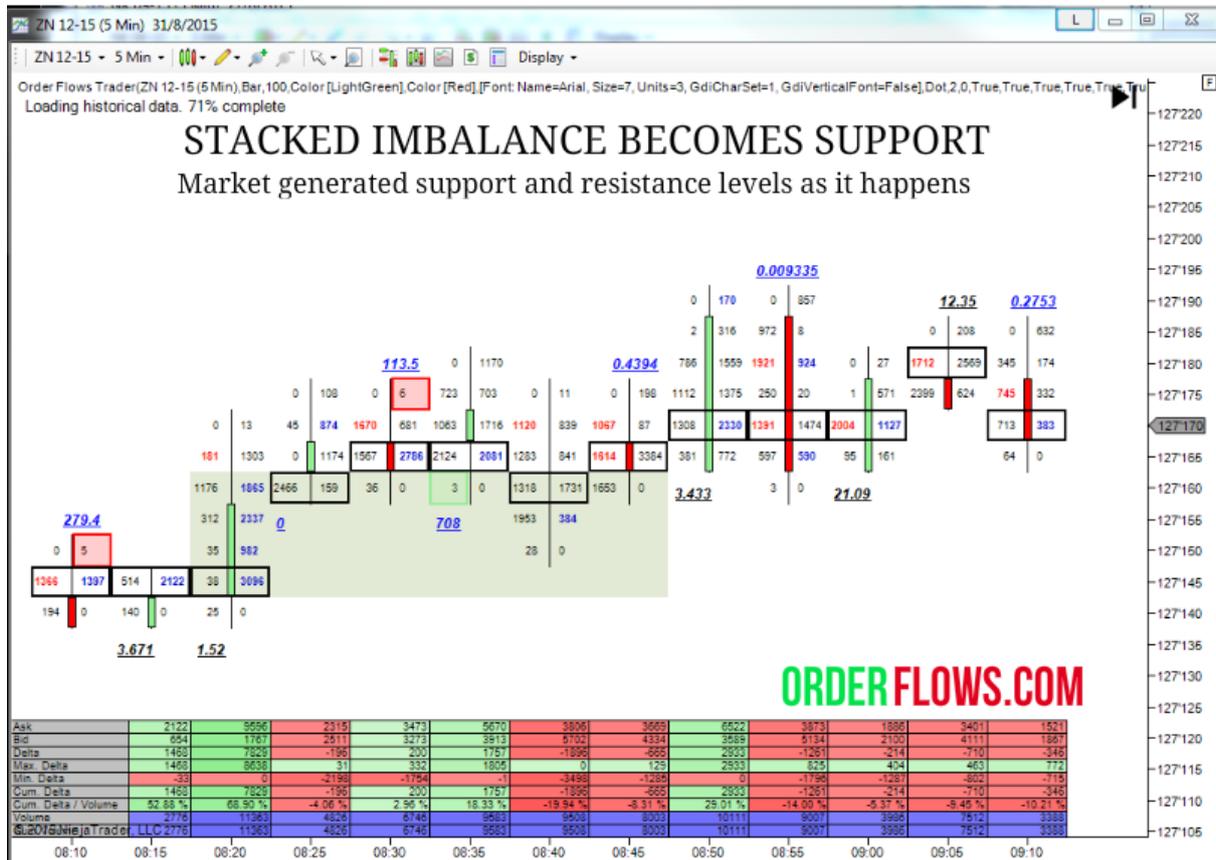
At point A there was a stacked selling imbalance and the market sold off from the middle of the imbalance zone before rallying through it. At point B, there was a stacked buying imbalance, the market traded down through it before rallying back up where it hit point C, and could not get past that level and then turned and sold off. Depending on where you put your limit order to get in the position, I like to put my entry limit order at the middle and last price in the stacked imbalance zone then I place my stop one and two ticks outside the stacked imbalance zone. This trade has an average 1.5 tick stop. A small loss at point A and point B,

but point C was a nice winner. The market sold off 50 points to 1.0930, not bad considering your entry was at 1.0979 and 1.0980.

During the course of the trading day there can be many stacked imbalances. There will be some that work out beautifully, but most will fail. But for a trade where you are risking 1 tick to 2 ticks with a potential profit of 10ticks, 20 ticks and more it is worth the trade. I like to look for these trades on longer time frame charts like a 15 minute or 30 minute chart.



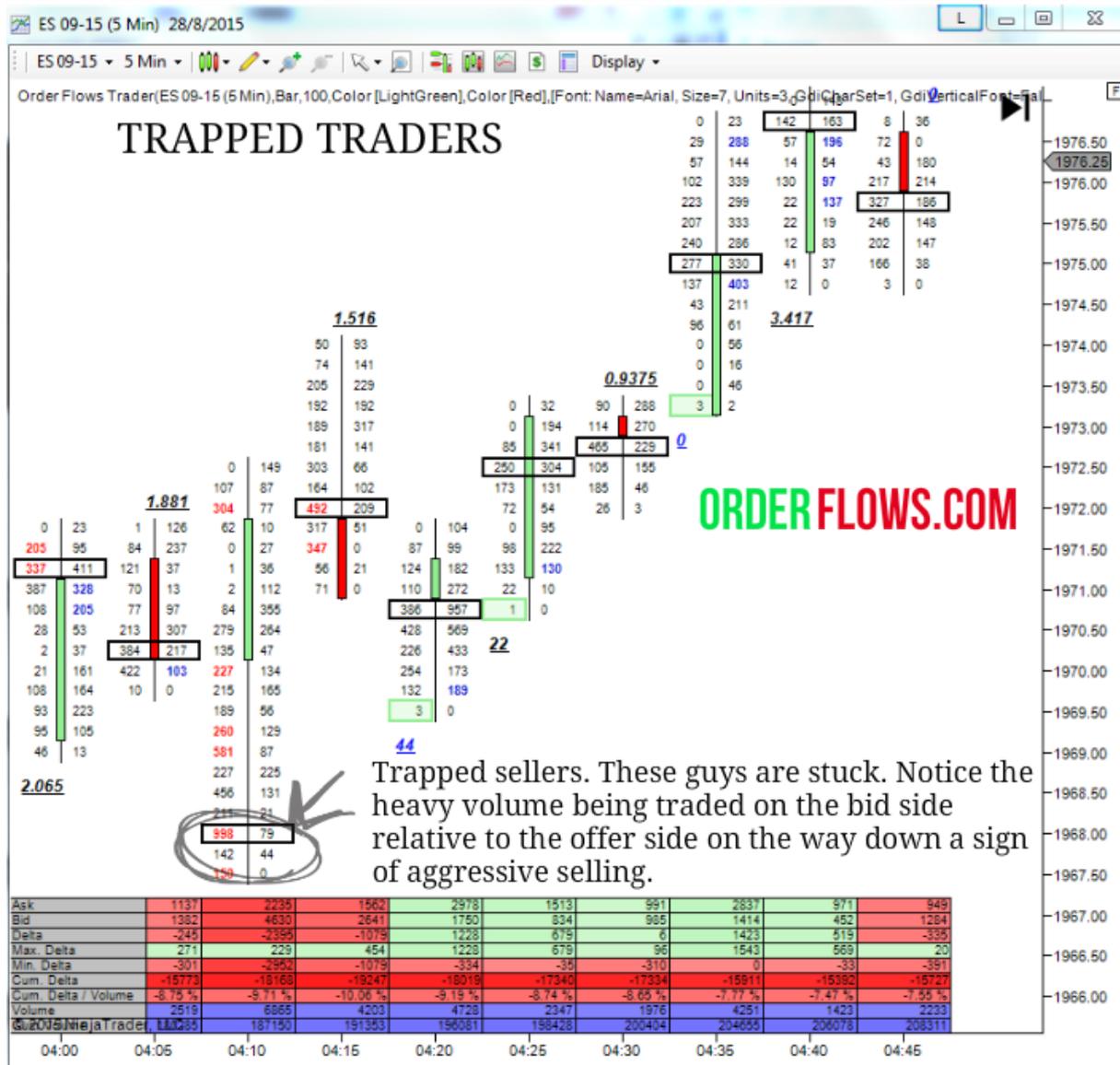
Orderflows software has a feature that will find stacked imbalances in a market and draw on your chart the support and resistance levels generated by the market. For buying imbalances a green zone will be shown on your chart. For selling imbalances a red zone will be shown on your chart.



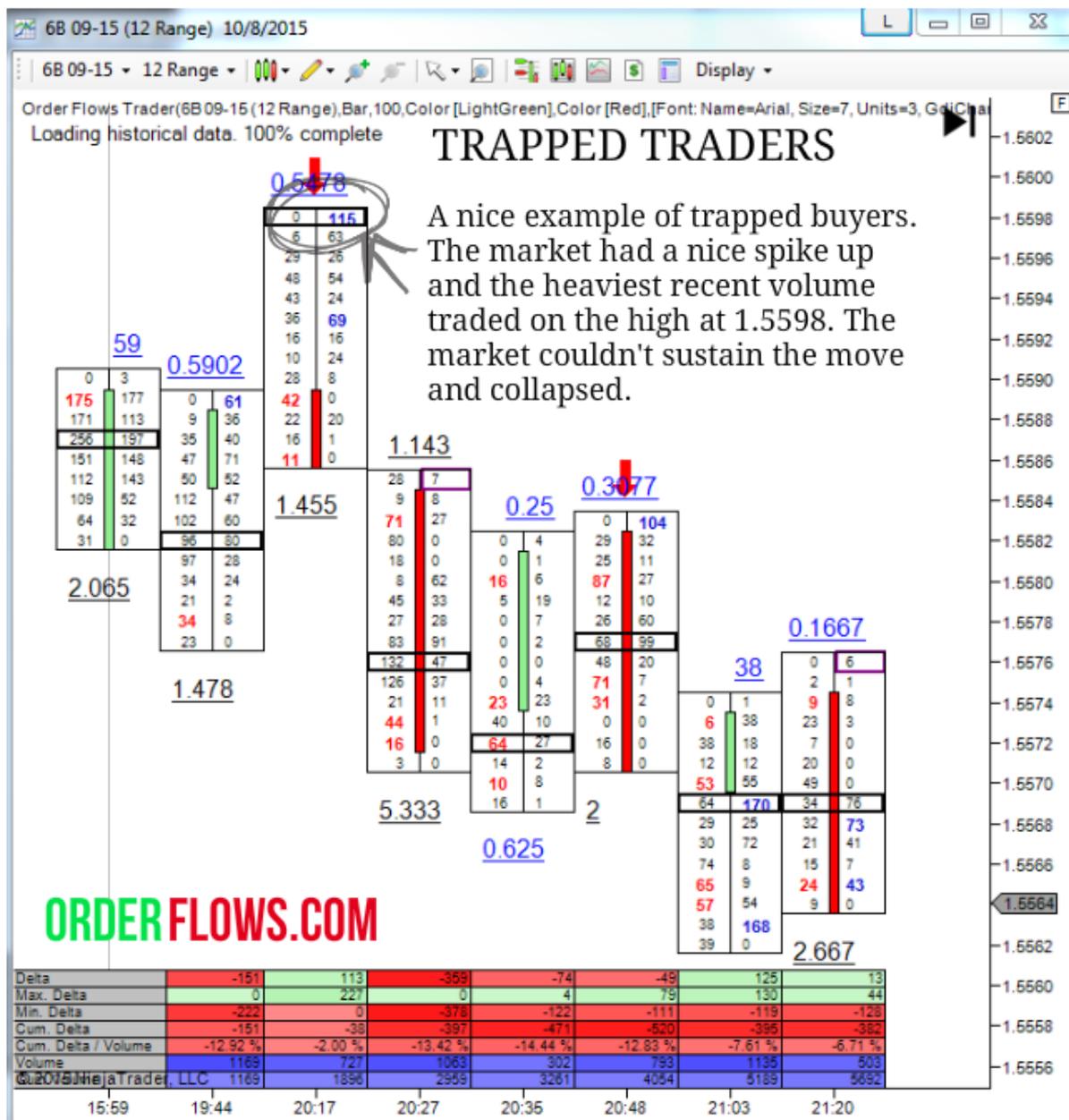
TRAPPED BUYERS AND SELLERS

Trapped buyers and sellers are short term market participants that bought at or near the high or sold at or near the low and the market has not followed through for them, they are trapped in a losing position, the market has turned against them and they need to cover their position to get out.

You can see trapped sellers when the imbalance numbers are at the bottom or a tick or two off the bottom and the market is not going lower and instead turns and goes higher and the price bar closes higher. There is a saying in the markets “someone has to sell the low” and it is usually the trapped sellers that do. Trapped sellers are usually the last people to sell in a move.



You can see trapped buyers when the imbalance numbers are at the high or a tick or two off the high and the market is not going higher and instead turns and goes lower and the price bar closes lower. Trapped buyers are usually the last people to buy in a move up. These buyers will have to turn into sellers which adds to supply causing prices to move down.



Trapped traders are those caught in a trade that moves against them and are hoping and praying that the market will quickly come back to their entry level so they can get out. Trapped traders usually find themselves on the wrong side of the market pretty quickly and are under immediate pressure to cover losses once price moves against them.

When you are able to find trapped buyers or sellers there is usually a good short term trading opportunity. While it may not signal the end of a long term trend, it can identify market turning points in the short term.



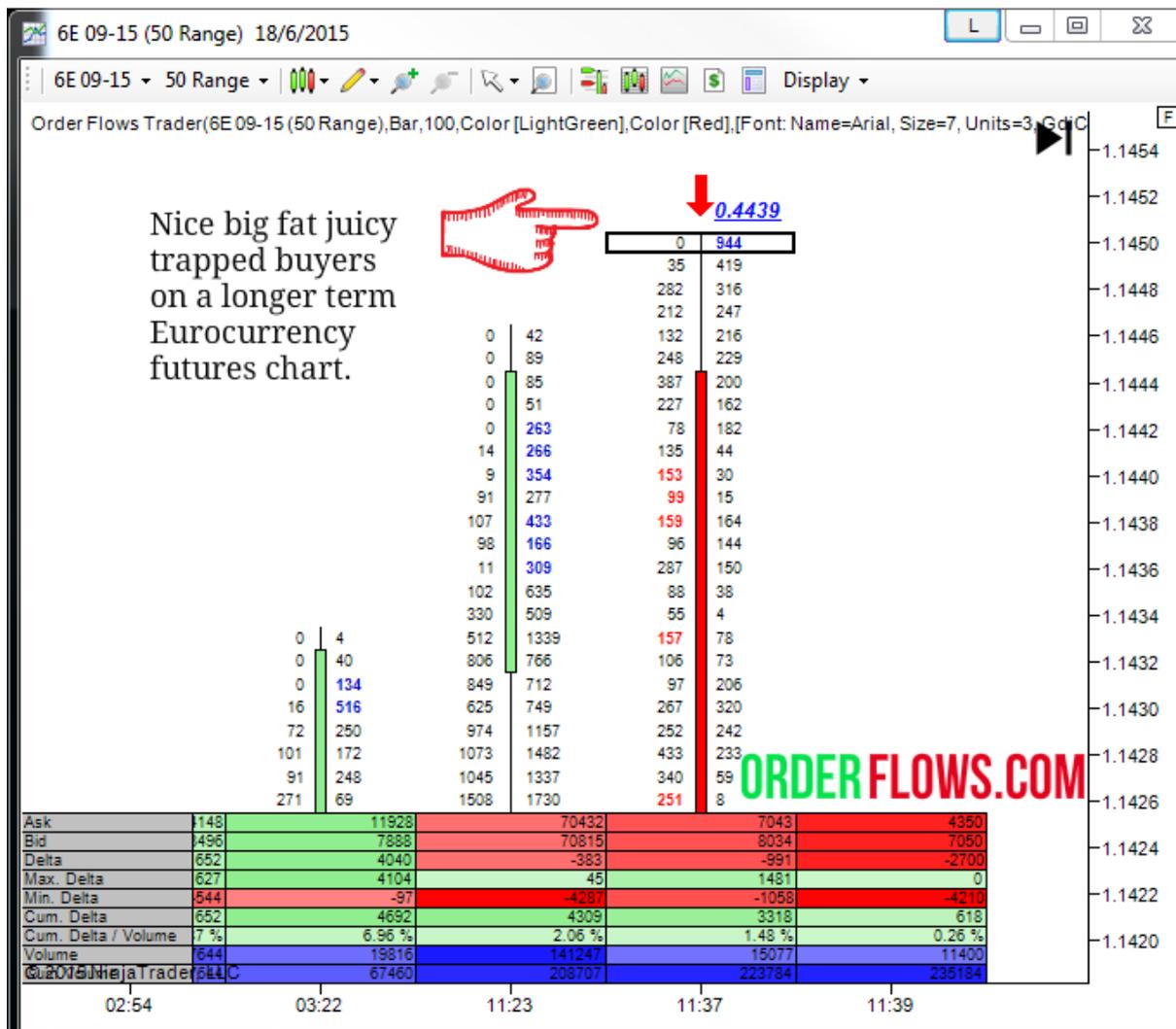
Trends can start once the trapped traders are shaken out of their losing positions and aggressive participants start to be active.

Candlestick bars and traditional bar charts cannot show you trapped buyers or sellers. You need the ability to look inside the bar to determine what is actually going on in the market.

When you look at the order flow you have solid clues the market is ready to pop higher.

Order flow charts can be applied to longer term time frames. Of course not all trades will be as beautiful as these trades. But as you can see the profit potential is quite large. Just catching a few of these moves a year can really make reading the order flow footprint charts worthwhile.

Here are another set of charts, this time in the 6E – the eurocurrency futures contract.





Ok, I know it is a stretch to say trapped traders with 250 lots will turn the market and cause a trend in the opposite direction. Rather what is happening is that the market sentiment in general has changed. The market cannot carry through and the last buyers (on a high) or the last sellers (on a low) have gotten in.

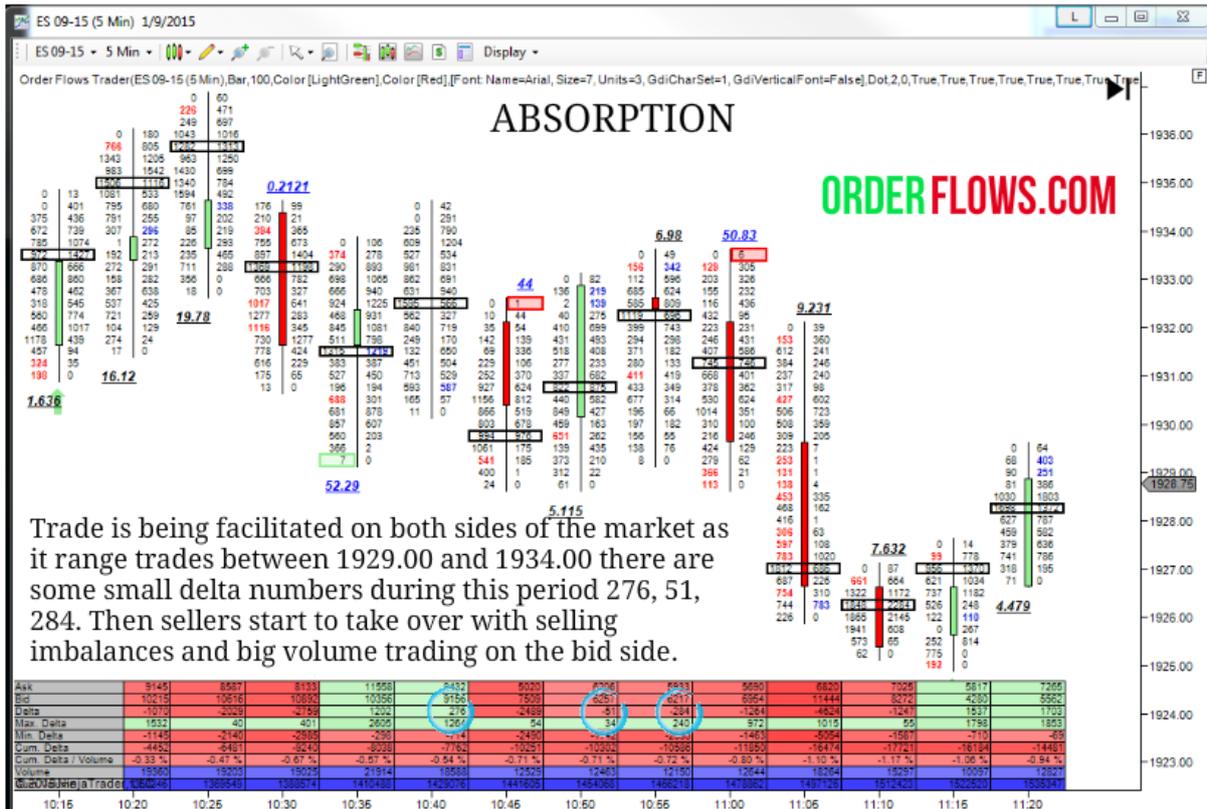
ABSORPTION

Markets are always looking for a level for two sided trade to take place. A price level where both buyers and sellers can participate back and forth without moving price very much. This is called absorption. These are the price levels where both buyers and sellers are happy to transact major volume with each other. You will see big size trade into the bid and big size trade into the offer. The net difference between the two will be small relative to the amount of volume that traded.

A traditional technical analyst may think of absorption as consolidation. But there is a difference and that is volume. A market may consolidate because of a reason other than what is happening in the market. There may be a FED announcement so trading volumes have decreased and the ranges get small, this may look like absorption. There may be a holiday so volumes are low because traders are on vacation. It could be the day before the Non-Farm Payrolls number comes out. These events and others can lead to consolidation before price moves.

Absorption on the other hand is a level where you see heavy volume go through but on both sides of the market – the bid side and the offer side. This is where inventory changes hands.

The big money long term commercial players don't come in and butcher the market. They trade their size where there is size that can be traded. Big money moves markets, but usually it is not just one player. It might be a few big players, some medium size players and a bunch of smaller players. The place where they meet and do the majority of their trading is called an absorption level because that is the level where a lot of volume occurred but the market did not get affected by it. Both buyers and sellers were happy.



The origin of any price move is where supply and demand starts to move out of balance. This is where the low risk, high probability and high reward entry levels are. Prices start to turn higher when demand exceeds supply. Price turns lower once supply exceeds demand. When the market starts to move out of absorption levels there are some great trading opportunities. The only way to see absorption is by looking at volume footprint charts.

Absorption can occur anytime in the market. When it occurs it is relative to what happens afterwards. Major trends do not happen immediately after each other. The start of a major trend is often seen after a period of absorption where one side of the market is able to build their position up. As absorption dries up price is free to move in the direction of aggressive buyers. Once all the supply has been removed from the marketplace, the market is free to move higher without much resistance.

Absorption can be present at the end of trends and profit taking mid-trend. When absorption occurs it indicates demand is being met by new supply at market highs or supply is being met by new demand at market

lows. Basically price is not able to move any further as new supply or demand appears in the markets.

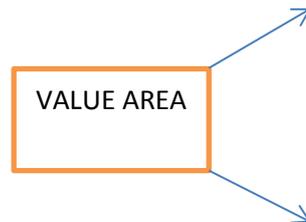
What is good about absorption is that it can be regarded as a sign for a breakout move as the buyers and sellers fight for control of the market. Once the transfer of supply or demand has taken place, price is likely to move away from value.

One caveat with absorption, you tend to see absorption occur within the last few minutes of the day. This does not necessarily mean new supply or demand has come into the market, it can likely be attributed to day traders closing out their positions before the end of the trading day and hedge funds trying to execute orders as close to the closing price as possible.

INITIATIVE ACTIVITY

Institutional long term players dictate trends and when the volume they wish to trade cannot be satisfied at one price their perception of fair value shifts and price starts to trend. This is called initiative activity.

To move a market outside of a value area it takes large orders. It takes institutional players. Retail traders just do not have the financial resources to move prices for extended periods outside of value areas.

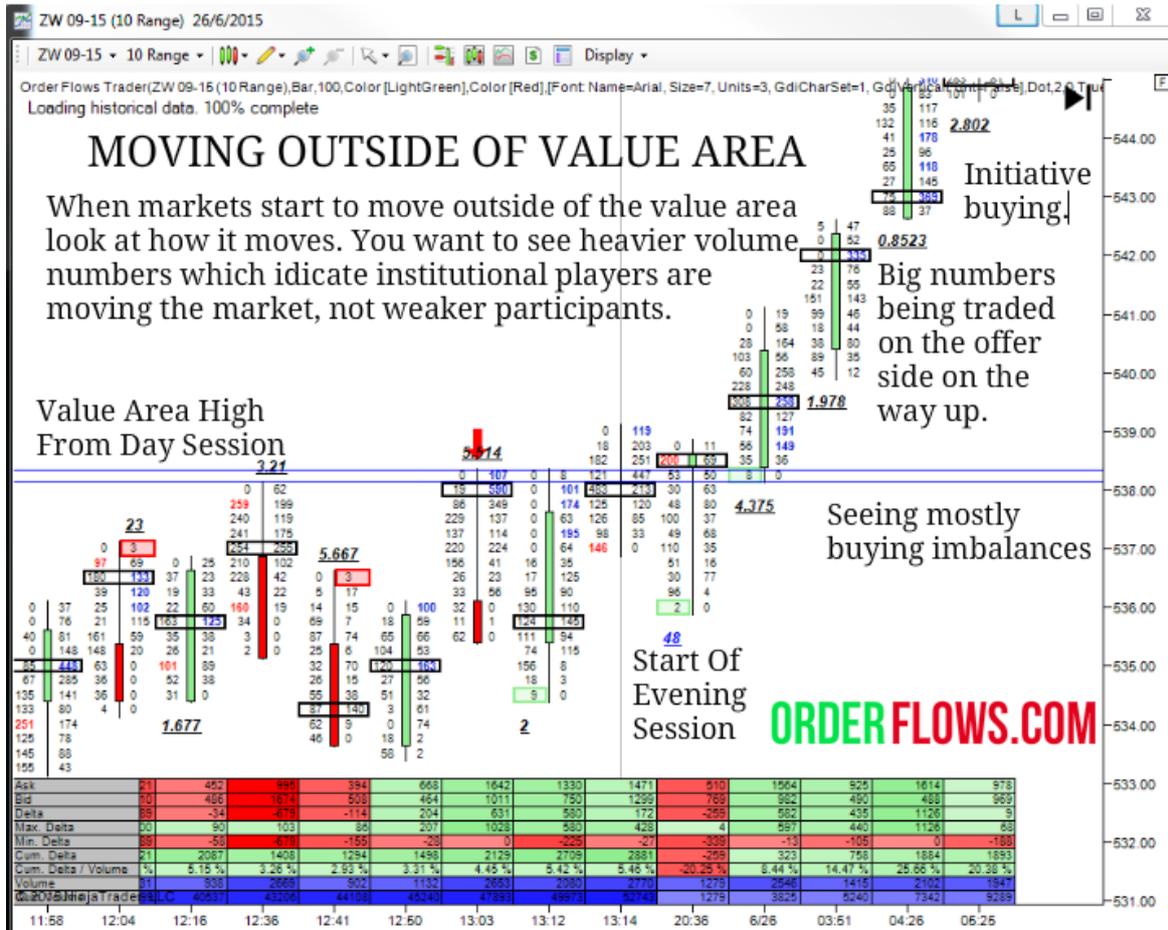


If the market is trading above value as a result of buyer pressure that is initiative buying. If the market is trading below value because of selling pressure that is initiative selling.

You have to understand where fair prices are and understand where unfair prices are. Once you start to move away from fair prices it is important to know why. Is it initiative activity? Are buyers taking the initiative to move prices higher? Or if the market is moving lower, are sellers taking the initiative to move the market lower?

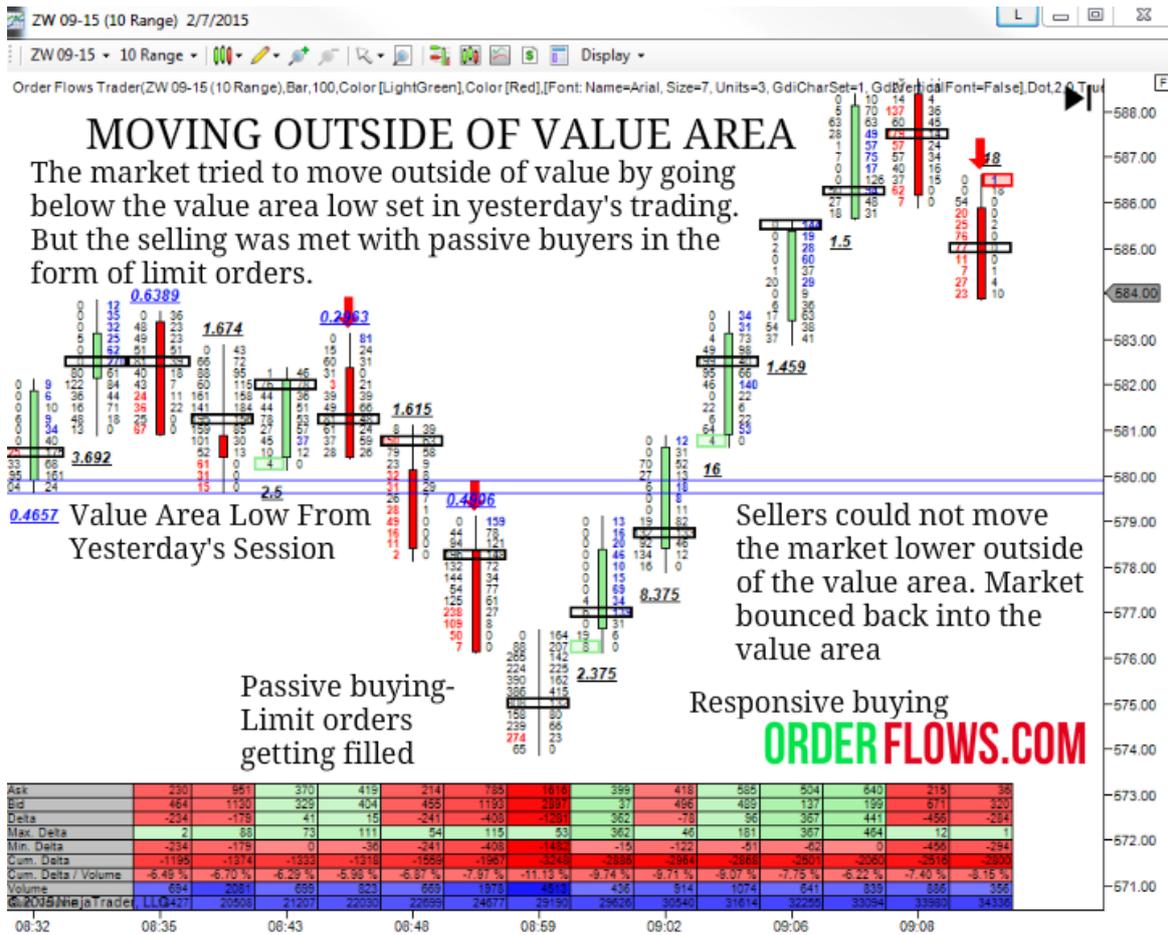
When the market breaks out of a value area but there is no strong buying or selling pressure then you look for responsive activity which is in the form of limit orders. For example, when you buy a house you will usually submit a bid. If the price of the house is valued at \$1 million and you like the house but you are not in a hurry to buy you may submit a bid of \$750,000. The seller might then lower his price to \$850,000 because he is a little more motivated to sell. But you are firm in your bid.

Eventually the seller gets aggressive and lowers his price to your bid and sells it to you. You are a responsive buyer. The price of the house has moved below the value area. You are buying below value, but not aggressively.



Breakout trades can happen in either direction of value. What is important to note is if there is any responsive activity to stop the move and push the market back into the value area.

How do you determine what the value area is? The most common method is with Market Profile. It is the area where 70% of the day's trading occurs. The value area is based on what time period you decide.



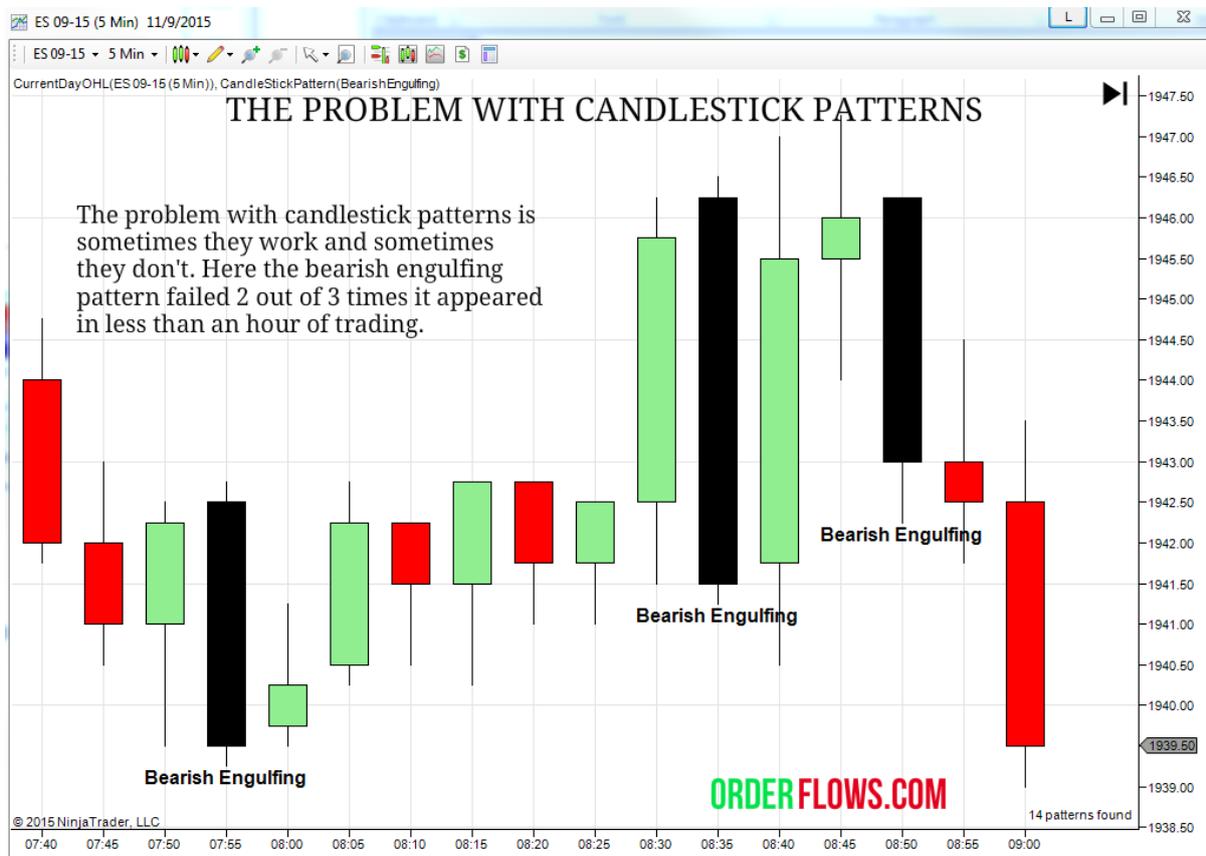
Once you learn to recognize the players, institutional or retail, by the order flow footprint you can determine what type of activity is going on.

CANDLESTICK CHARTS & ORDER FLOW

Candlestick charts are a simple visual form of tape reading and price action and were created by the Japanese a few hundred years ago. They show you where the market opened, the low, the high and where it closed for the period.

Traders try to predict future price movements based on candlestick patterns that have formed. There are all sorts of patterns with colourful names that traders look for: Abandoned Baby, Dark Cloud Cover, Hanging Man, Gravestone Doji and many more. Sometimes the patterns are reliable, other times they are not.

I think the reason candlestick charting has lost some of their effectiveness is that markets have evolved over the last several hundreds of years. Market participants and their activities have changed. Japanese candlestick charting was developed in an era when there were no institutional traders or day traders or high frequency traders.

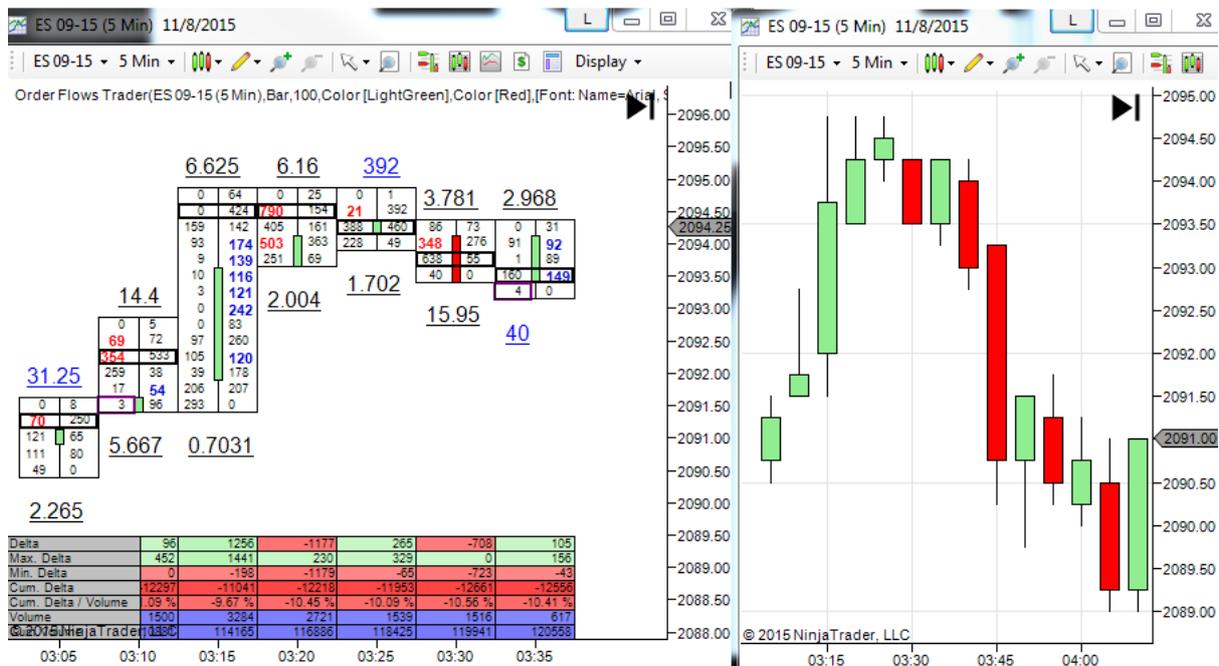


This is not to say that candlestick charts are useless in today's trading environment, because they are not. They give a quick visual colourful

representation of the market which is useful to most traders. I do use candlestick charts in conjunction with order flow charts to help keep me abreast of the short term direction of a bar on the chart. It is important for me to know where the bar closed in relation to its open. Actually a normal bar chart can also show that information, but aren't as colourful.

The essence of candlestick charting is the relationship between the opening price and closing price. In simple terms, a long green (I have mine set to green instead of traditional white, because my charts are white background) candlestick bar indicates buying pressure. However, you cannot understand the magnitude of the buying pressure without looking at the order flow. Even with candlestick charts it is difficult to know if the buying will continue or stop. A red candlestick indicates that during the bar, the market closed at a lower price than it opened.

Candlestick charting and also traditional bar charting methods fail to show is what really happened during the bar. You can see a big white candlestick, which is a bullish candlestick, and conclude that buyers were aggressive. While that may be the logical conclusion to make as obviously buyers were in control to cause the bar to close much higher than it opened, you don't know how much in control they were or if their control waned at the end.



The order flow chart is on the left and the candlestick chart is on the right. In the run up in price there are five green up candlesticks, but in the fourth and fifth candlestick you start to see aggressive selling come into the market as seen in the fourth bar (at 3:20) by the 790 lots traded on the bid at 2094.50 and 5033 lots traded at 2094.00. Also the bar had a negative delta of -1177 which is a sign of selling pressure. So while the bar still closed higher than it opened, there was more selling than buying in the bar. On the fifth bar volume was less and the market couldn't go any higher and you already had a sign in the previous bar that sellers were now coming into the market. I would be hesitant to buy at this level and more inclined to look to be a seller.

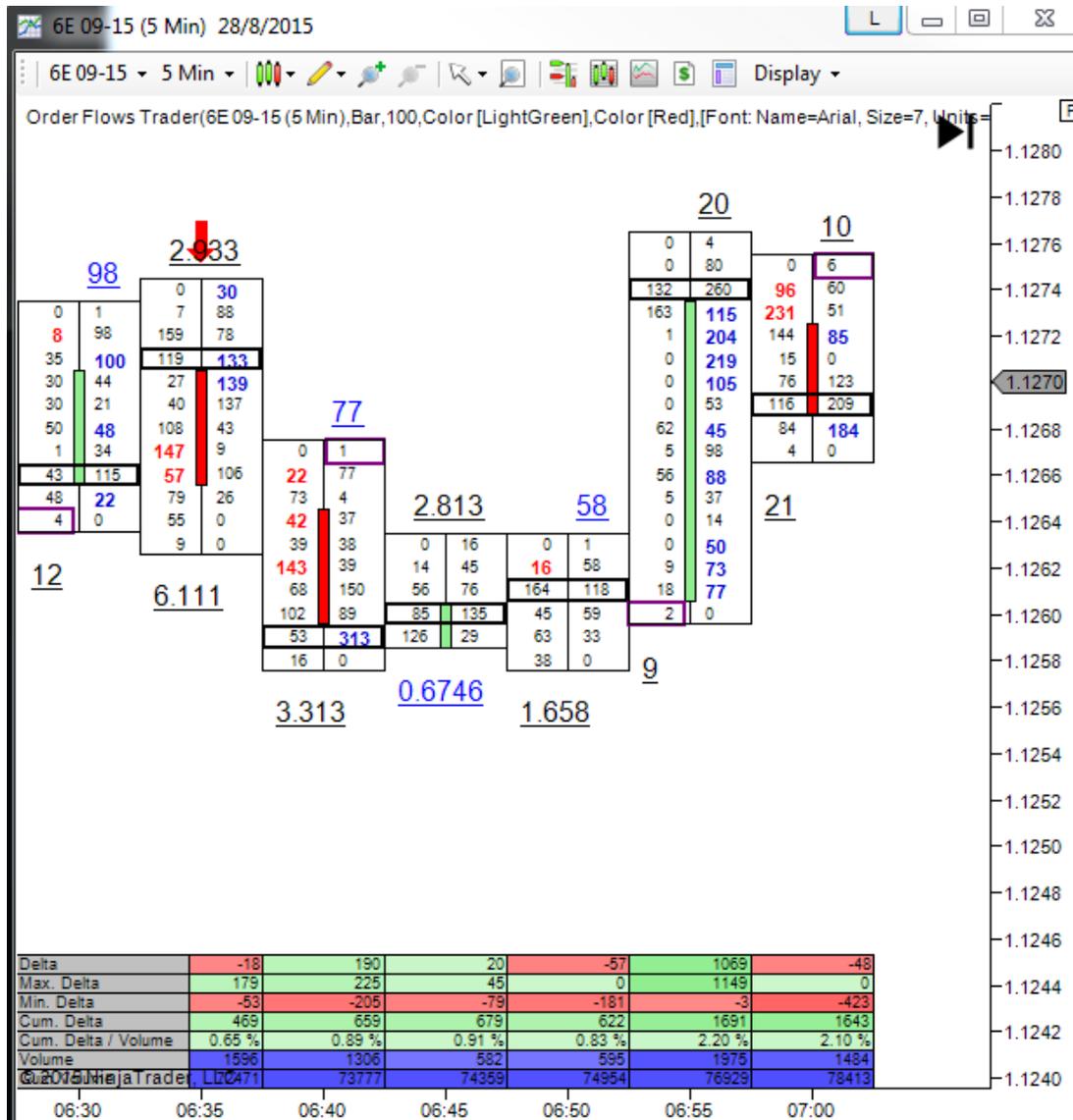
Imagine a soccer game where the score ends 4-0. You read the score line and see the final score 4-0 and think the winner had a nice easy game all the way. But if you actually watched the game, you might see that the first 60 minutes the game was evenly matched as both sides failed to score. But over the last 30 minutes the winning team scored a goal and that caused the other team to change their style of play to try and tie the game. But winner scored yet another goal a few minutes later and it was now 2-0 with 20 minutes to play. The losing team yet again changed their tactics and gave up another goal. The score was then 3-0. At this point the other team just played to run the clock out and gave up yet another goal and the match ended up 4-0. If you just look at the final score you will think one thing, but when you dissect the match you see that it wasn't until late that one team really asserted its dominance.

Just looking at a candlestick form on a chart you may miss the essence of how the candlestick was actually formed. Did buyers or sellers become more dominant? Did one side give up? Did one side become trapped? Candlestick charts do not show that. Order flow charts do. If you were going to pick a winner in the soccer game, it is easier when the score is 2-0 than when it is 0-0.

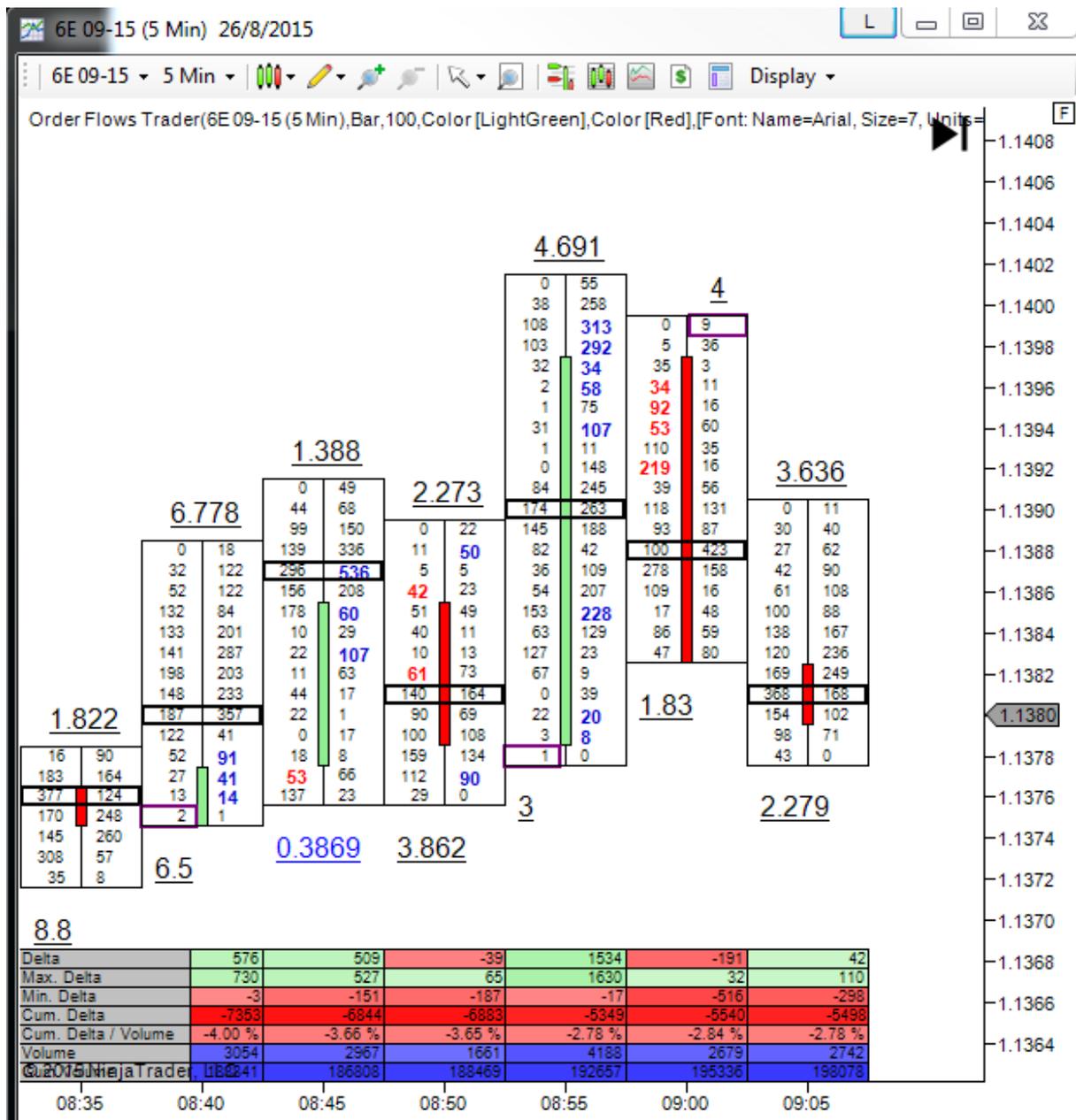
Candlestick charts are a useful tool by themselves, but when partnered with order flow they help create a powerful analysis method.

One of my favourite trades occur when I see buying or selling imbalances in the wick areas that run contrary to the candlestick type to try and trade in the direction of the candle. For example, a red

candlestick with buying imbalances near the top in the wicks and selling imbalances in the body, I look to short. For example, the 6:35am bar, there were buying imbalances at the top near in the wick and selling imbalances in the body.

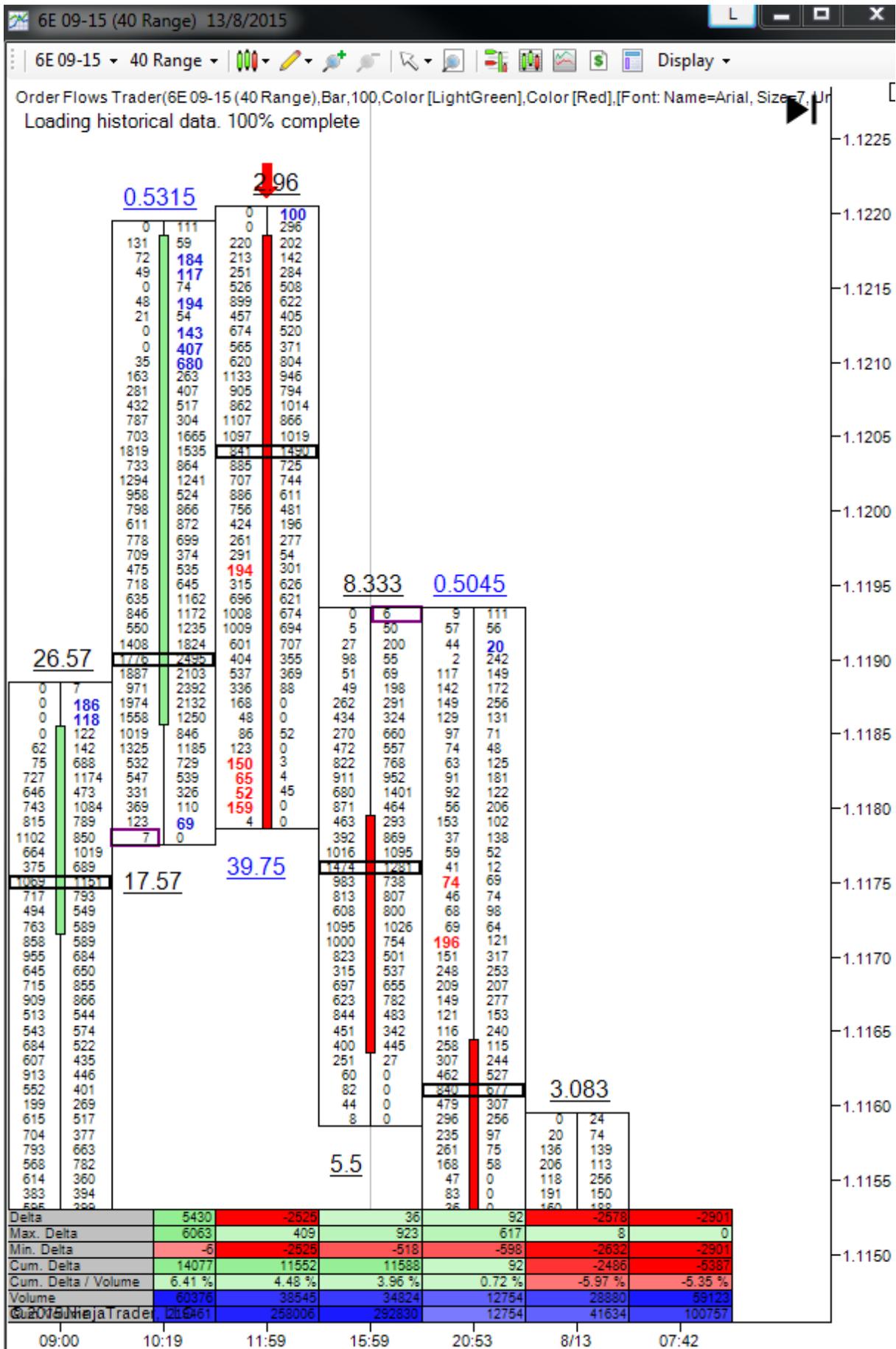


The opposite is true with a green candlestick. I look for selling imbalances in the wick and buying imbalances in the body. What is happening in the bar is the market sells off first aggressively before aggressive buyers come in and really take control of the market.



The 8:45 bar a selling imbalance in the wick and buying imbalances in the body. The next bar at 8:50 the market went down and tested the low of the previous bar before rallying on the 8:55 bar.

The setup works on a variety of charts, short term, like the 5 minute charts in the example above and even longer term like a 40 range chart:



WHAT KIND OF CHARTS CAN BE USED WITH ORDER FLOW

I use a variety of charts daily in my analysis of the markets. I am not tied down to one particular type of chart. To do so would be foolish. There are different types of participants in the market, from the extremely short term to very long term. If you decide to base all your trading decisions on one type of chart, say a 5 minute chart, you are missing out on the bigger picture.

There are three types of charts I like to use: range charts, volume charts and time charts. Even though all three types of charts have the same variables of price, volume and time, it is how each chart uses them that makes it different and useful.

My first choice of chart to use is a volatility based chart, also known as range charts, where volume and time are variables. The market doesn't care about every 5 minute time period or 15 minute time period or whatever time period you set your charts to. You want to see where the market rotates. With a range chart, bars are created when price moves. A 4 range bar chart will have a size of 4 bars. Price would have to move 4 ticks for a new bar to be created. You can set the amount of bars to whatever you like. New bars will only form when price is moving. If price is not moving or stuck in a range within the bar, a new bar won't form until it moves outside of the bar. When price breaks outside of the set range of the bar, a new bar will form.

The second choice of chart type that I use is volume based charts where price and time are the variables. You can choose any amount of volume for this type of bar. Each bar will have roughly an equal amount of volume that is traded in that bar and when the volume exceeds the set amount a new bar will be formed. When I say each bar will have roughly an equal amount of volume, for example a 1000 volume bar, one bar may have 988 lots while the next bar may have 1012. This happens when trades are split between bars. There will be times when it takes a lot of price levels to facilitate a trade of 1000 lots and there will be times where 1000 lots can be traded without moving price. This is valuable information that can be used in making trading decisions.

The third type of chart that I look at are time based charts where price and volume are variables. This would be something like your normal 5

minute chart. However to get a handle on the importance of volume in trading you need periods where volume is trading. If the time period is too short there may not be enough volume traded to understand what is happening in the market. One minute charts is too short, five minutes give a better look on the market. Thirty minutes is good for longer duration trades that can last for days. Time based charts are the way the majority of traders choose to view the market.

You will see many examples in this book using time based charts in addition to range and volume charts. This just shows you how order flow footprint charts can be used in various ways and how the market can be broken down.

Given a choice between range based charts, volume based charts and time based charts I would choose range based charts followed by volume charts followed by time based charts.

I am also interested in are daily, weekly and monthly charts. I find previous highs and lows are important to look at and keep in mind when trading today. Those are levels where the market stopped and turned due to supply and demand. When the market revisits those levels, I watch to see if they are accepted or rejected again.

HIGH FREQUENCY TRADERS (HFT) AND SCALPERS

There has been a lot of bad press about High Frequency Trading over the last several years. Some lawmakers even want to ban the practice. A majority of the bad press you hear about HFT's comes out of the equity markets where there are multiple exchanges trading the same issues. Most HFT's in equities work multiple orders across multiple exchanges so there can be a chain reaction when an issue trades on one exchange resulting in quick price movements in other related exchanges. This explains why a majority of people think high frequency trading is a way for some traders to front run orders since a computer can react much faster than a human.

The important function of HFT's in futures markets is that they provide liquidity in the markets. I won't get into the intricacies of HFT's but suffice it to say that High Frequency Trading firms have become the new scalpers in the futures market. In the days of pit trading, locals would stand in the pit and make markets all day long, trying to buy on the bid or sell on the offer, holding positions for seconds or minutes. Now there are computer programs that essentially do the same thing. The programs work bids and offers across multiple futures markets.

HFT's don't have a clue what is going on in the world and don't care. These programs are reacting to market movement before they occur. All other traders react after they occur. HFT's don't take positions and ride them as long as they can. By their very definition "High Frequency Trading," they are in and out of the market many times a day.

Scalpers are traders who trade in the extreme short term. They originated from the trading pits where they would generally try and at least capture the bid-ask spread. However, in today's trading environment scalpers do not try to capture just the bid-ask spread. Yes, they will take just a one tick profit if that is all the market will give them, but usually they will try and make 4-10 ticks if they can. Usually though, scalpers will get out of the market once they feel momentum has stopped. A more apt name for scalpers would be short term day traders.

HFT's and scalpers do use order flow analysis. They look for areas where orders will come in and try and jump ahead of those orders. That

is why sometimes it appears that these guys are front running your trades, when all they are doing is simply analysing order flow.

You are not competing against HFT's or scalpers or the mythical group of traders known as "them". You are competing against yourself. HFT's do not control the market. They are reacting to market conditions and trading opportunities as they occur instantaneously. There are much bigger participants in the market moving in and out daily. There are banks, pension funds, hedge funds, commercial producers, asset managers and more. You don't know what their position is. You don't know why they are getting in or out of a position. What is important to you is how you are able to analyse what is going on in the market and profit from it.

INSTITUTIONS AND THEIR USE OF ALGORITHMIC TRADING

I mentioned earlier that on the basic fundamental level what moves a market are buyers and sellers. When you break it down I suppose the one thing that moves markets is money and it's not a little bit of money – it's A LOT of money.

Who has the money to move markets? Hedge Funds, banks and commercials. For simplicity sake I will refer to these players going forward as “institutions.” In different markets they have different identities. In commodity markets it may be a big commercial company like Cargill, ADM or Unilever, a company involved in the production or consumption of a commodity. In stock indices it may be a fund management company like Profund or Fidelity, a company that invests in the underlying stock markets. In the bond market it may be a player like Western Asset Management Corporation, a company that invests in global government bonds.

Institutions generally are always involved in the market in some way as it is inherent to their business. Even if they don't have a position, that can be considered a position. Being on the side of the institutions is important because they make the trend, they have the money to make the markets move up or down on a sustained basis.

Let me be clear, when I talk about institutions, I don't mean any one player in particular. It is their cumulative effort that moves the markets. Not only do they have the money, but they also have knowledge about the market that not every trader is privy to. A market participant like Cargill will have better knowledge of Malaysian palm oil production in the near term than the average market participant simply because of their palm oil holdings and daily dealing with other suppliers.

Institutions not only make the market, they are the market. If you are picking a side of the market to follow in the market place, the odds are tremendously better when you stay on the side of the institutions. But how do you know what the institutions are doing? Imagine they are a herd of elephants walking in the jungle. They are knocking over trees, stepping on bushes and leaving their footprints everywhere. It is easy to see what they are doing. Trading volume tells us what these trading elephants are doing in the market. By reading the volume in the order

flow not only can we tell when an institution is active in the market but it also tells us whether the surrounding buyers or sellers are becoming stronger or weaker.

The companies that produce commodities and turn them into products don't get big by being wrong on the markets, at least not very often. Because of their size and their requirements for huge amounts of physical commodities these players are constantly in and out of the markets.

Institutional traders are not concerned with well-known indicators like MACD, RSI and Stochastics. They are concerned with the current and future state of supply and demand and use this analysis to make their trading decisions. They listen to what the market is telling them and react accordingly.

But the hard part is determining when an Institution is participating in the market. In the old days, when Institutions had to place their trades through brokers, if you had a good relationship with your broker they would tell you who was buying and selling. For example, if you called down to the SP500 floor and your broker said "Deutsche Bank is buying" or "Goldman's is selling". Then if you knew Paul Tudor Jones traded through Goldman's in the SP500 pit, you were led to believe Paul Tudor Jones himself was selling. That was how order flow was back in the day of pit trading. Many institutions now execute their trades themselves electronically through broker provided trading front ends so it is not as easy as it once was. One way to tell what an institution is doing is by reading the order flow. You will see huge size go through particular levels. It is important to watch the edges of the market. The day's high and low, was there a big buyer or seller? Where were the levels of aggression?

A lot is written these days about the evils of algorithmic trading. Most people have no idea what algo trading is and they lump in with high frequency trading. Algo trading in one sense, as applied for futures markets, is a way to execute orders with minimal market impact. It could be something as simple as an iceberg order or more complex like a ghost bid where the order is only shown when the market is offered at a level where the customer wants to buy it.

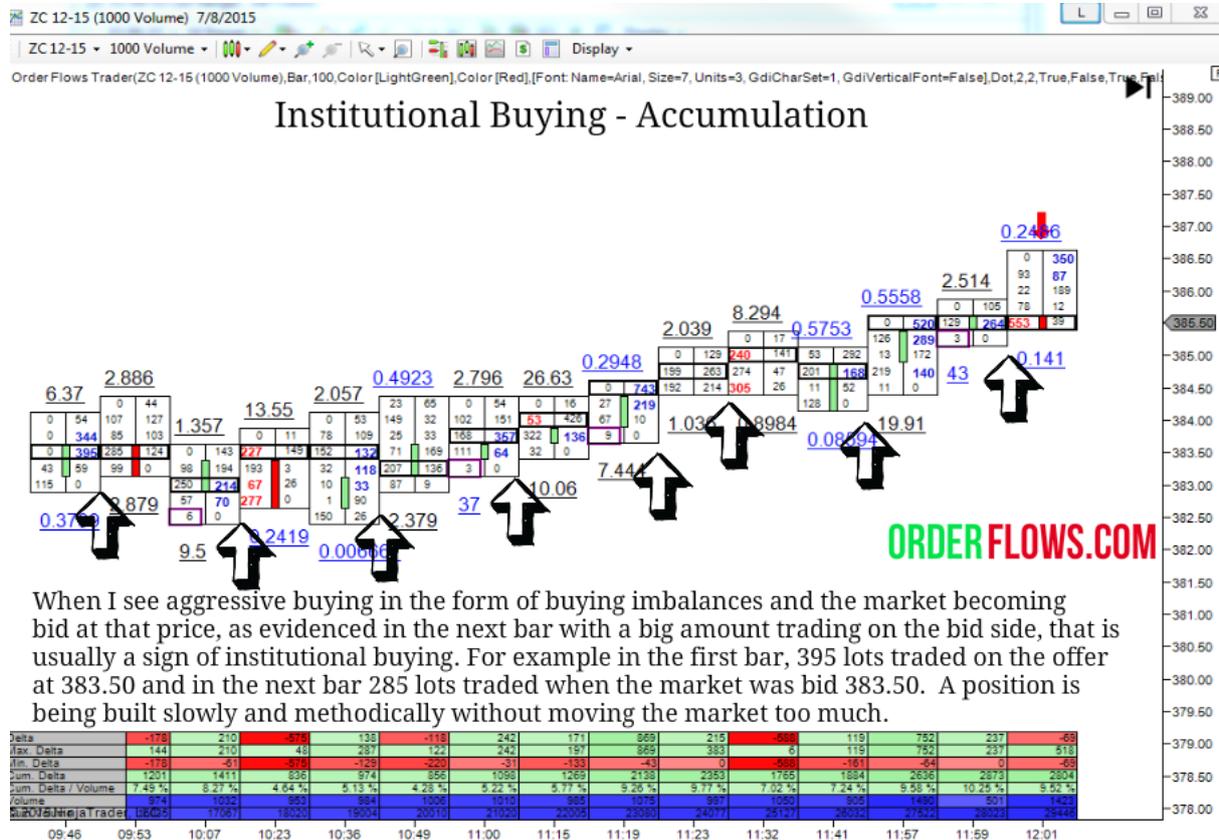
The reason these “algos” were created was for institutional players to hide their activities in the electronic market. If everyone knows that an institution has 1000 lots of corn to buy at 378.00 then other participants will also start to buy corn, but not at the same price, maybe just a little bit higher at 378.25 and 378.50 before the market starts to move higher and the Institution can't get filled at their level of 378.00. So banks and hedge funds started to create algos to mask their market activities. I won't get into all the different types of algo trades that are available because that would be another book, what is important to know is that whatever volume that is traded in the market either on the bid or offer will show up in the order flow.

Size does matter in the markets and institutions do not want to tip their hand to everyone else. You have to realize that most markets just do not have the available size an institutional size player wants to trade. An institution may want to trade 3000 lots but there may only be 300 lots available at a price, 100 lots at the next price, 100 lots at the next price, 50 lots at the next, etc. So to get their order completed they would either have to push the market to an unrealistic level or try and finesse their order into the market.

Sometimes institutions have orders so large that they it can take hours or even days to move or build their position efficiently without bullying the market. There are players that have positions of 200,000 ES futures, 100,000 bunds, etc. Although they don't get in or out all at once, when they add or reduce positions it can be in the 5,000 -10,000 lot size.

One of the things I learned as a broker about the biggest and juiciest orders from Institutions is that they do not always get filled. An Institution has a level or price range they want to participate at and stick with it. They don't call back and ask their broker to chase the market. They want to get in at the price levels they want, they don't want to move the market and know that even if they miss the trade by a tick, its ok, there will be other opportunities in the future. Institutional traders don't panic the same way retail traders do when the market starts moving and they are not getting filled on their orders.

Here is an example on solid institutional buying in the corn market:



In the example above, all you know is that someone is trying to buy a truck load of corn and that caused a short term rally of about 20 cents over the next few days.



Now the rub is you don't know exactly if the institution is buying to get into a position or get out of one. They could be hedging their position. No one really knows except the actual people doing the buying. Ultimately you just don't know the

reason WHY they are active in the market. A majority of the volume you see daily is pure speculation, either long term or short term. However there is a portion of volume that is end users buying for delivery.

If you constantly trade against institutions you will have a hard time being profitable in the long run. Futures' trading has attracted some of the sharpest minds on the planet. At the very least, all you have to do is trade in the same direction as them. If you are going to be trading alongside the institutions you need a way to determine the level of institutional activity in the market place or the lack of it. Order flow provides you that opportunity.

I am not saying you have to copy what the institutions are doing to be successful. What I am saying is if you buy when the institutions are buying and sell when the institutions are selling you stand a far higher chance of success than trying to go against them constantly. At the very least you need to be aware of what the big players are doing.

VWAP

VWAP stands for Volume Weighted Average Price and is perhaps the most commonly used algorithm for trading today; it assumes the markets are efficient. The reason it is important is because it is the benchmark by which trade execution is measured. It is the average price at which the majority of a given period's trading took place weighted by volume at each price level. In other words it means to fill a trade where everyone else is trading.

A broker can add value by working an order with their discretion, buying when they thought the market was cheap or selling when the price looked rich based on their subjective judgement about the market. VWAP is a replacement for that.

When an Institution has large orders that must be filled they will often use a VWAP based algorithm to execute the order as close to VWAP as possible. By executing their order as close to VWAP as possible it indicates that they have been able to minimize the market impact of their order. Hedge funds are conscious of their market impact costs which are the costs incurred by trades so big that they will move the market.

In a simple form VWAP is used to determine value for institutional traders much in the same way a moving average works as a trading indicator. But VWAP is used more for trade analysis than trade entry. When a buy order is filled at a price better than VWAP it is good for the trader as the average transaction value is better than what everyone else in market for that time period also received. The reverse is also true for when one is selling. If a sell order is filled at a price better than VWAP the trader is selling at a higher average price than everyone else during that time period. VWAP is the measuring stick for large orders.

When price is below VWAP, institutions that are looking to buy will tend to buy at prices below VWAP as they are able to build a position that is better than the VWAP. They won't be that willing to buy when the price is trading above VWAP as it will ruin their own average price against VWAP.

When price is above VWAP, institutions that are looking to sell or get short will try to execute their orders as they are selling at prices that they feel are better than what has been recently trading. If an institution is

trying to fill an order they won't be as willing to buy when price is trading above VWAP, they may buy some just to participate in case price never comes back to VWAP, but it will be minimal.

The interesting thing about VWAP orders is that there is no guarantee that it will be filled or that it will match VWAP.

So why is VWAP important? For an intraday trader VWAP is important because they can determine if they are selling too cheap or buying too rich. When prices start moving 1 or 2 standard deviations above VWAP and you are buying you could be buying at prices too expensive. Conversely, if you are selling and prices are 2 standard deviations below VWAP you could very well be selling too cheap. This is not to say that prices cannot move 3 and even 4 standard deviations away from VWAP because it can.

When trading with order flow you can lay VWAP lines on your chart to give you an indication if it trading cheap or rich. I am more prone to take buy signals when the market is trading cheap and sell signals when the market is trading rich to VWAP.

Do not think for a minute that VWAP has to revert to the mean. A market can stay above or below VWAP most of the day.

VWAP is not without its limitations. As the trading day goes on the lag in VWAP become stronger. This is because a lot of trade data has already been factored in and new trade data has less of an impact on the overall VWAP number and will tend to flatten out. On strong trending days price will be above or below VWAP pretty much all day. On range trading days VWAP will run through the middle of price action. On days when important news comes into the market late in the day, that cause significant price movements on heavy volume the VWAP profile will be affected. How an order is executed will also affect the VWAP since the average execution sits somewhere between the bid and offer spread. To match VWAP an order would need to be a combination of limit orders and market orders.

A problem I see with VWAP with the trading public is they don't fully understand how or why it is used. The trading public is using it as a form of moving average and think that when the market breaks through

VWAP to look for it to go to the 1st standard deviation and revert back to the mean. In theory that should happen. But the reality is it doesn't happen. I spent 8 years at JP Morgan executing VWAP trades for the biggest hedge funds in the world and some of the biggest internal bank traders. Orders are only executed over a part of the day, for example from cash open to cash close or the first hour of cash open, etc. Very, very few orders are executed VWAP from the exact open to the exact close which is what most software will calculate and draw on a chart. An order executed over the first hour beginning at the cash open would only look at VWAP for that time period, not the entire day VWAP. Large orders need to trade where the size in the market. A majority of trade happens at the open and the close.



Don't be misled into thinking that VWAP is a new excellent indicator to take trades against. As I mentioned earlier, VWAP is a way to measure a broker's trade execution. Traders make money by buying low and selling high, not by beating VWAP.

ICEBERG ORDERS

One of the tricks that traders use to disguise their intentions in the market is by placing their orders using the iceberg function. Simply put, iceberg orders are just large orders that are hiding their true size. A trader may have 500 lots of corn to buy, but will enter his order with an iceberg of 50 lots, meaning he will only show 50 lots at a clip. When the first 50 lots are filled then another order for 50 lots will be entered automatically.

Iceberg orders have mixed meanings these days simply because everyone uses them, even retail traders trying to trade 5 lots – they will iceberg the order to show 1 lot. Iceberg orders are used in nearly all markets nowadays, even thinly traded ones. In some markets depending on the time of day, a 10 lot order can spook the market a few ticks.

Unfortunately to see iceberg orders one has to be watching the order book and what is trading in order to see them. There is no special designation in the ticker for them. Icebergs are obvious when you are watching the bid/ask and you are buying the offer, but every time you buy the offer it refreshes the quantity and doesn't break through the level.

In my past life as an institutional futures broker we would almost always use icebergs on orders that were over 50 lots. It was normal for us to iceberg orders that we needed to get done immediately. If I had to buy 500 lots of soybeans, I would use an iceberg of maybe 15 lots per clip and immediately lift the offer. If I know the size of my order will move the market I may even buy it 1 or 2 ticks beyond the offer to get a good portion of the trade on. So it is not uncommon to see iceberg orders appearing in the middle of nowhere and sometimes you may not even notice it.

What is tricky about Icebergs is that they can be significant or totally irrelevant. You have to take them in the market context. An iceberg order in the middle of a range can mean nothing. It can be part of a spread trade against a physical trade and the trade doesn't want to spook the market by showing his entire size. In this case the trader doesn't really have a view of direction on the market as he is hedging.

Icebergs that I have found to be significant are ones that are holding up or holding down a market, usually long term macro levels and psychological levels. These are levels where the market can't seem to get below or above. The volume keeps refreshing when it trades a certain quantity. When these Icebergs are taken out the market can explode really quick in that direction. An iceberg on its own will not stop a screaming market. But it can serve as a sign of absorption, where price is being absorbed by the market participants.

Along this thread, an iceberg can stop a pullback in the market as there may be some significant size behind it and a pullback has weaker selling, but it most likely will not stop a trend because with a trend there is a tendency for aggressive participants to come in and take out levels.

A buy iceberg on a market moving up near highs is important as it can signal that a long term timeframe trader is getting involved in the market and doesn't want to show his hand as he is building a position. The reverse is true as a market nears its lows or is making new lows. These other time frame traders may be coming into the market to move size and are afraid of moving price too much before they can get their entire size off. But I think taking a trade based on an iceberg order appearing in the order book is a leap of faith.

The problem with iceberg orders is you have to be watching the market trade to notice them. There is no way to look at a chart after the market closed and see it. I think finding iceberg orders to use as a trade entry is over rated as they appear too frequently to add any value in making a trading decision.

In the end the traded volume from iceberg orders that are filled or even partially filled will show up in the order flow chart. It is understandable that institutional traders want to hide their market activities and really the only way to see what the institutional traders are doing is by looking at an order flow chart.

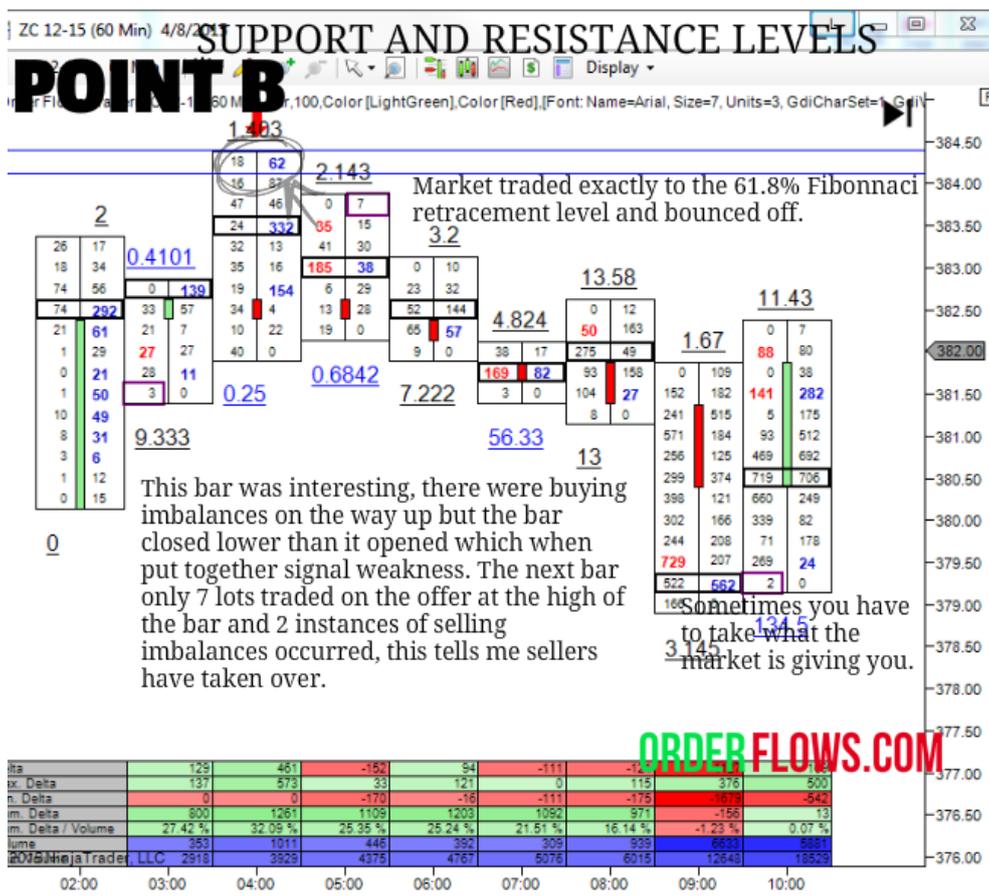
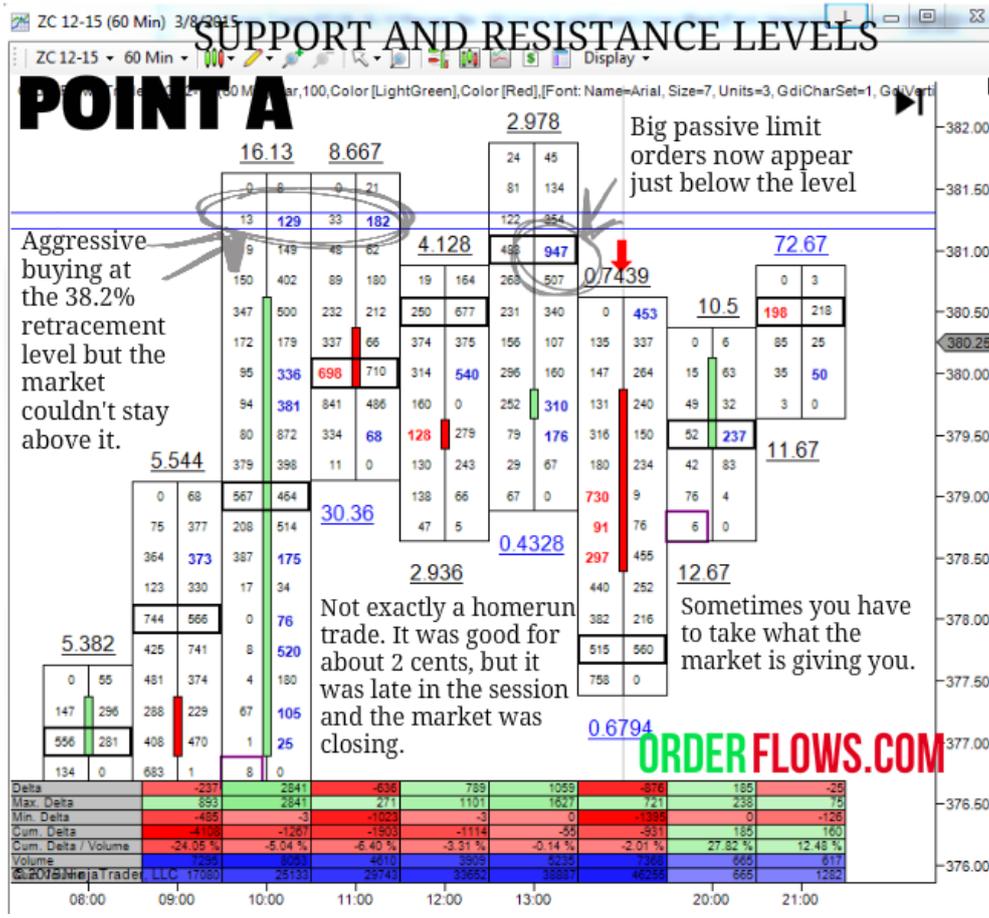
SUPPORT AND RESISTANCE

Every trader should have levels they look for in a market that determine support and resistance. How price acts at points that a trader considers critical is important to your trading. You want to determine if other time frame traders are coming into the market at these levels to either defend a price level or push the market through the price level to a new level.

There are many ways to find support and resistance levels. You can use traditional technical analysis such as pivot points, Fibonacci retracements, moving averages, previous highs and lows, etc. The question you want to ask is once you have your levels how do you know whether these levels are going to hold or break? You let the volume tell you what the market wants to do.

Here is an example using Fibonacci retracements on 60 minute corn charts. Corn is a great market to trade. A lot of traders turn their noses up at the agricultural markets in favour of faster moving currencies and stock indices but there are no truer markets to supply and demand as the agricultural markets.





Order flow charts give the trader plenty of information to make informed trading decisions especially when combined with their own view of the market.

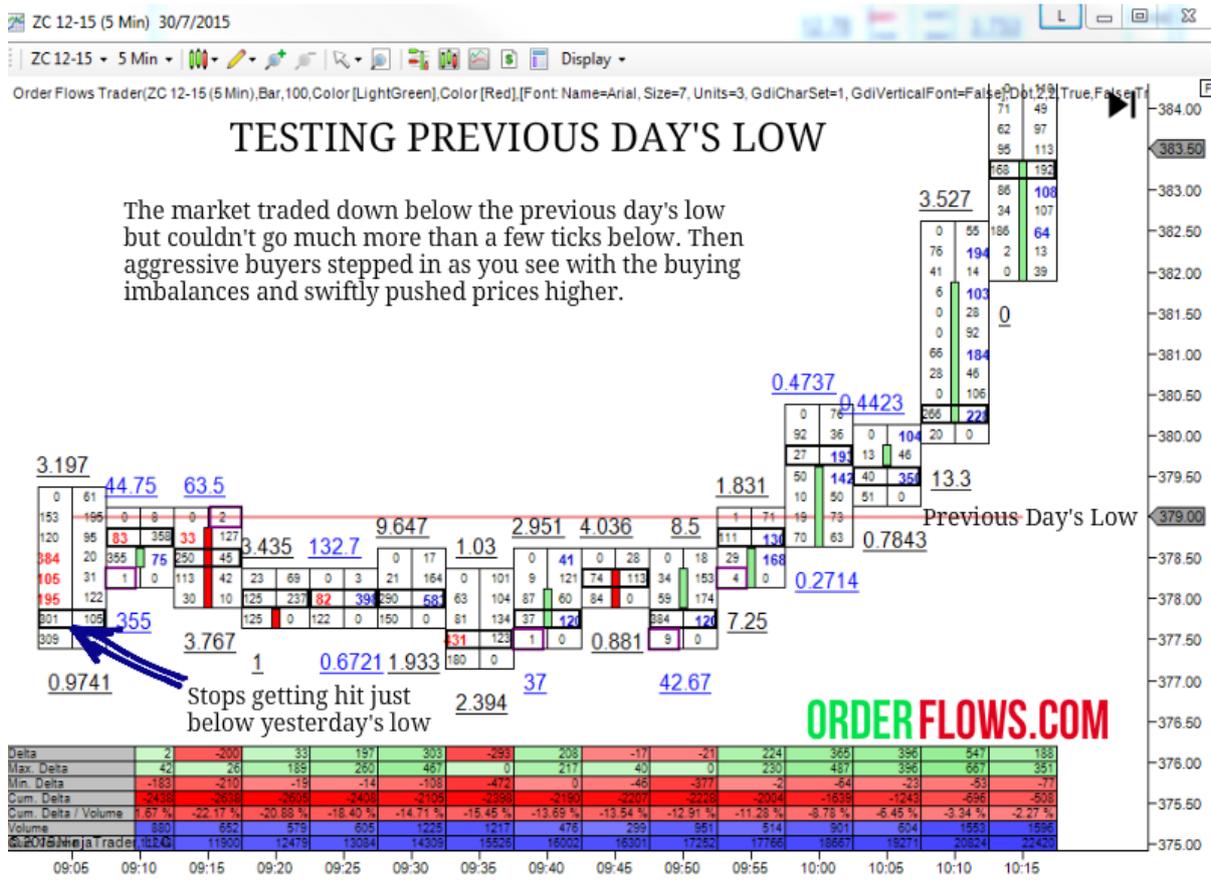
If we are coming into a resistance level and we see buy volume slowing down or coming into a support level and see sell volume slowing down this is a good indication the market may reverse. That is why you need to know where support and resistance are located. Otherwise you may just be poking around in the dark trying to understand if the market is at a turning point. You need effort to break through a support or resistance level and continue in that direction. This effort is usually shown by aggressive participants in the market place.

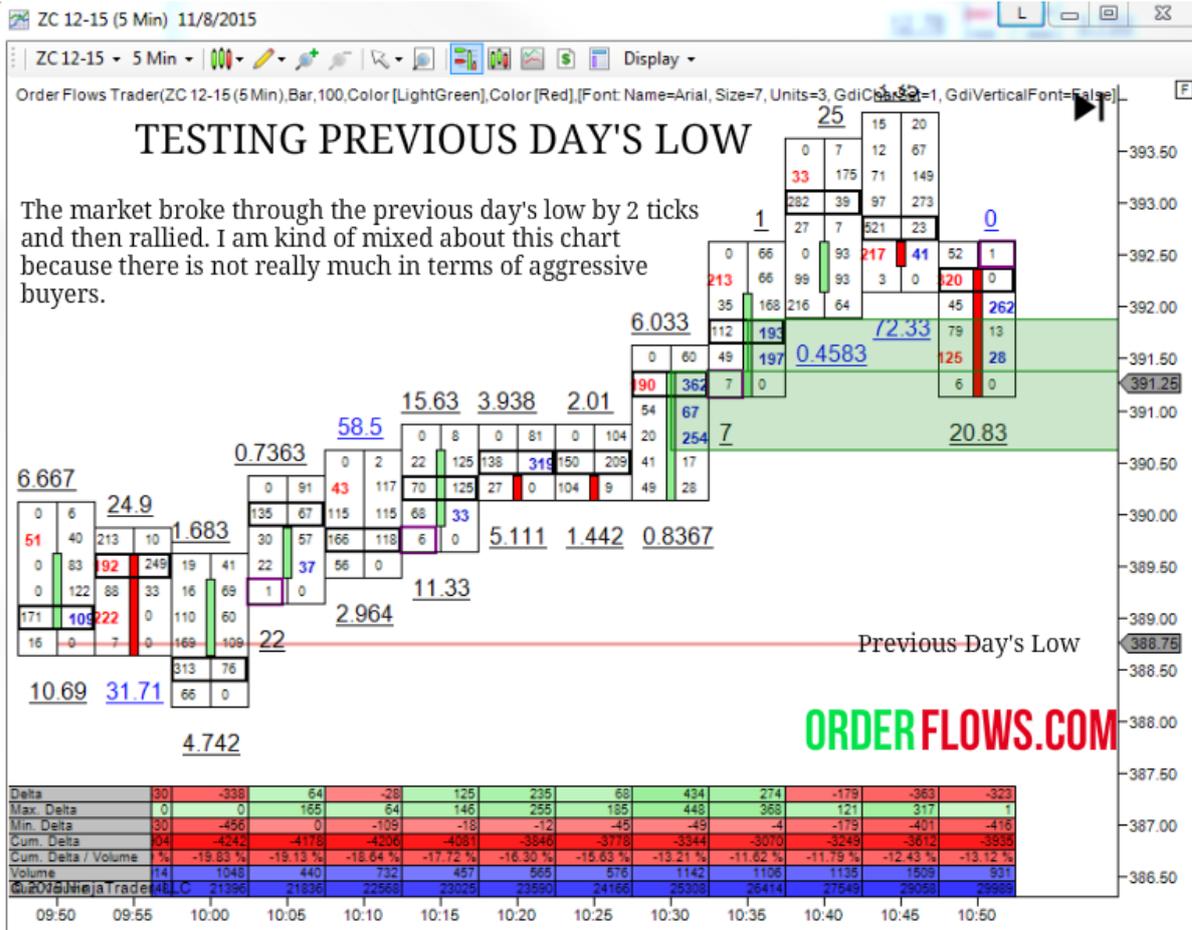
Look for macro levels in the market to trade around. A macro level is one that is large in scope and is easily seen and watched by market participants. When a macro level is penetrated it attracts long term money in the form of institutions as they come in to the market to reposition themselves and take profits or loses. Is volume heavy at these levels? Is this level being defended or abandoned? Are buyers or sellers being aggressive? Looking at an order flow chart will tell you what is going on and tell you what to do.

PREVIOUS HIGHS AND LOWS

An often overlooked support and resistance level is the previous day's high, low and close. These are levels that market perceived as being too expensive (yesterday's high) or too cheap (yesterday's low). Baring a change in fundamentals what makes a trader think those prices won't hold again today?

One of my favourite trades is when a market struggles to stay below yesterday's lows and I see big volume numbers trading on the bid side. I look for signs for a bounce higher. There is a well-established tendency among retail traders to place their stop levels above the previous high or below the previous low. This is a sign that there is support at these low prices because when short term traders try to move the price lower a bigger stronger other time frame participants are willing to buy their selling.

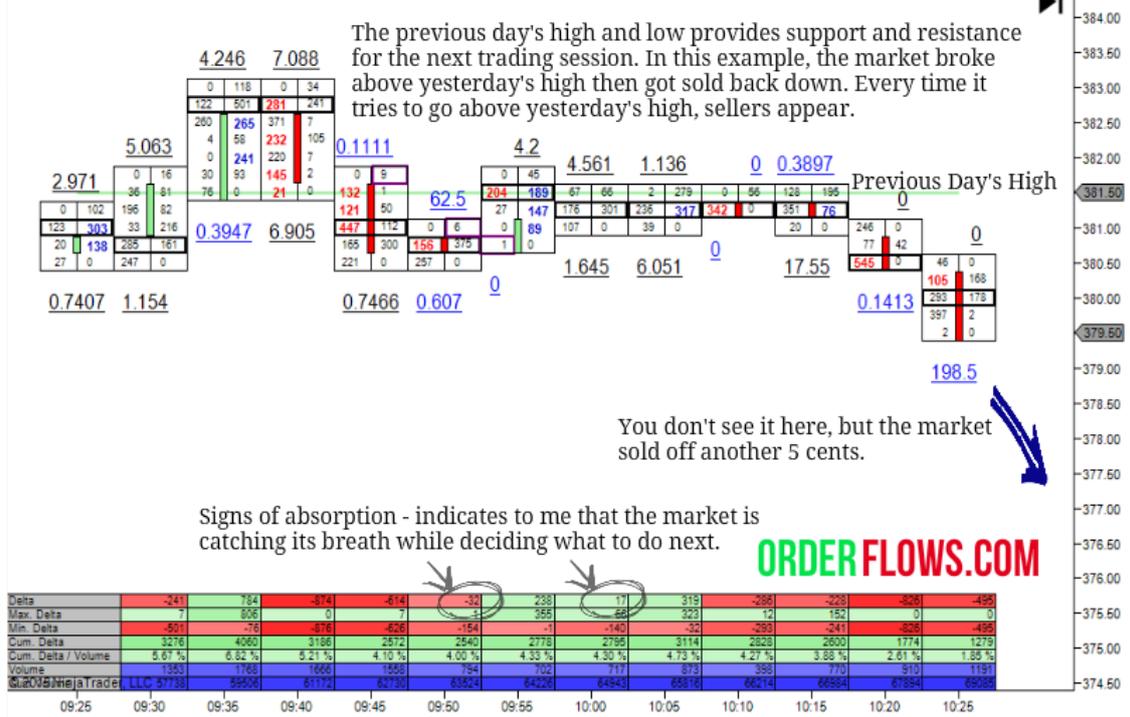




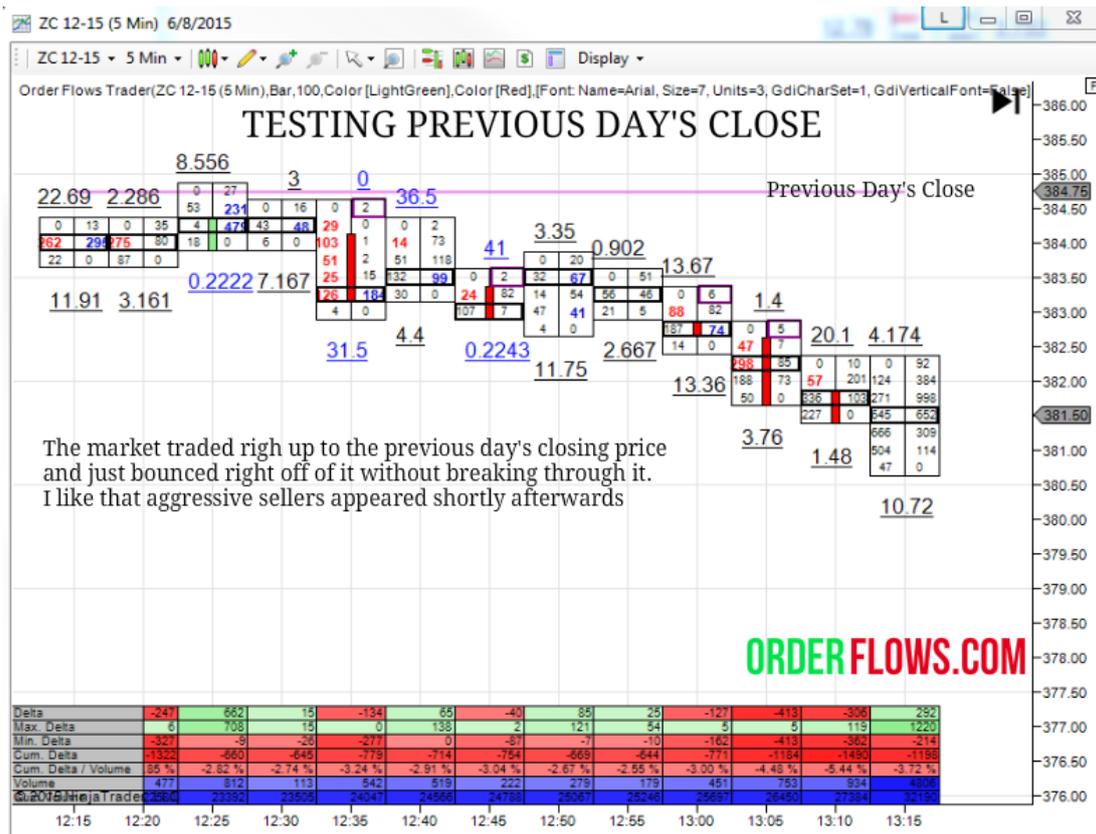
If the market starts to trade above and more importantly stay above the previous day's high with heavy volume that signals that new buyers are coming in. What the market is telling you is that yesterday the market couldn't go any higher, but since the market close, something in the market fundamentals may have changed enticing new buyers to come into the market and get involved. If the market can't stay above yesterday's high and sellers come in, then watch out below. Look for a move to the downside.

TESTING PREVIOUS DAY'S HIGH

Order Flows Trader(ZC 12-15 (5 Min),Bar,100,Color [LightGreen],Color [Red],[Font: Name=Arial, Size=7, Units=3, GdiCharSet=1, GdiVerticalFont=False, Dot,2,2,True,False,True,Fls...



The previous day's close is an important level for the current day trading since the previous day's close is the price level that positions are marked to market against. It is the level that institutions use to determine if their position is making money or losing money. When today's prices start to trade to the previous day's closing price, keep an eye on volume for signs of further moves. I am looking for levels to trade around.

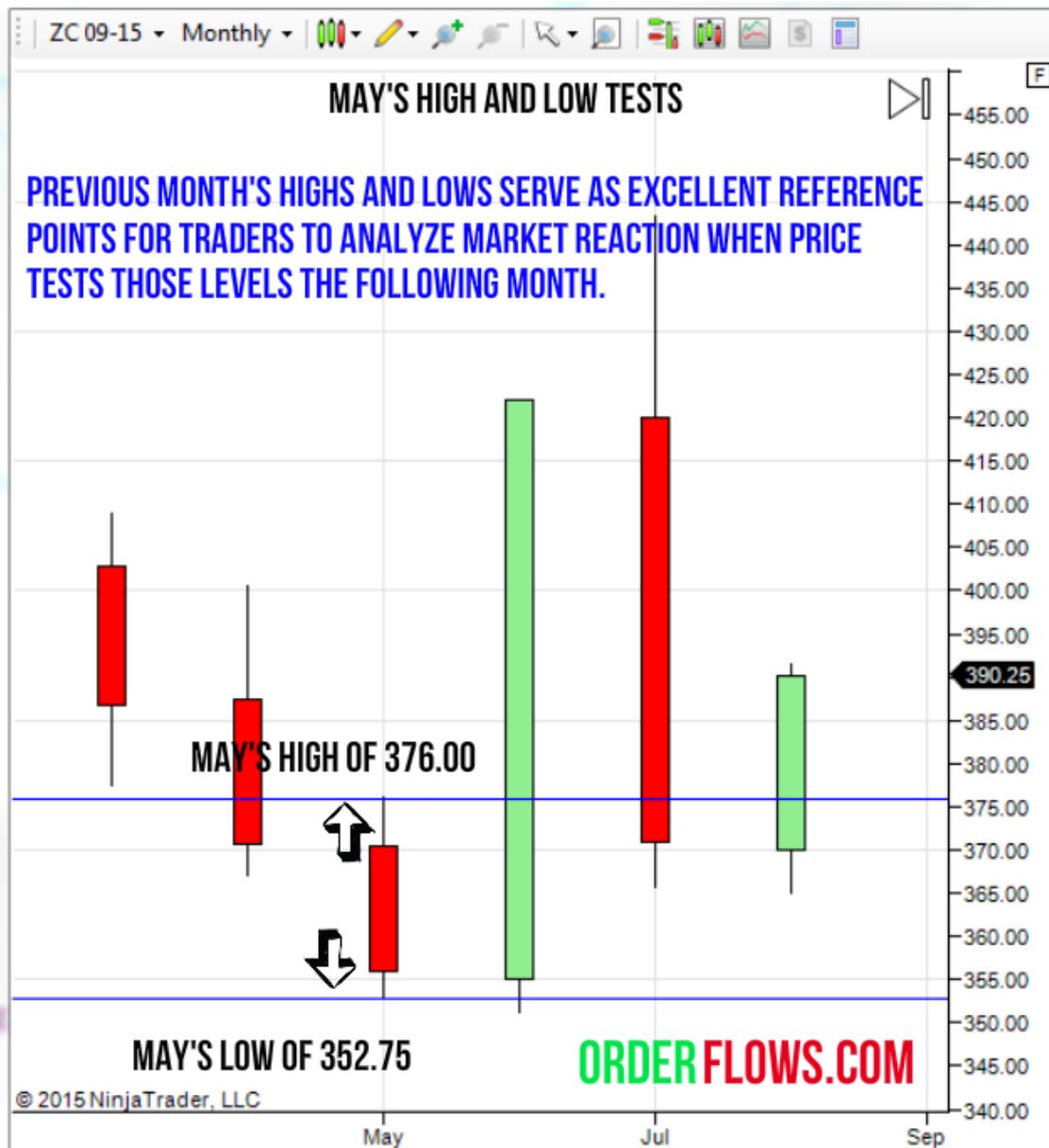


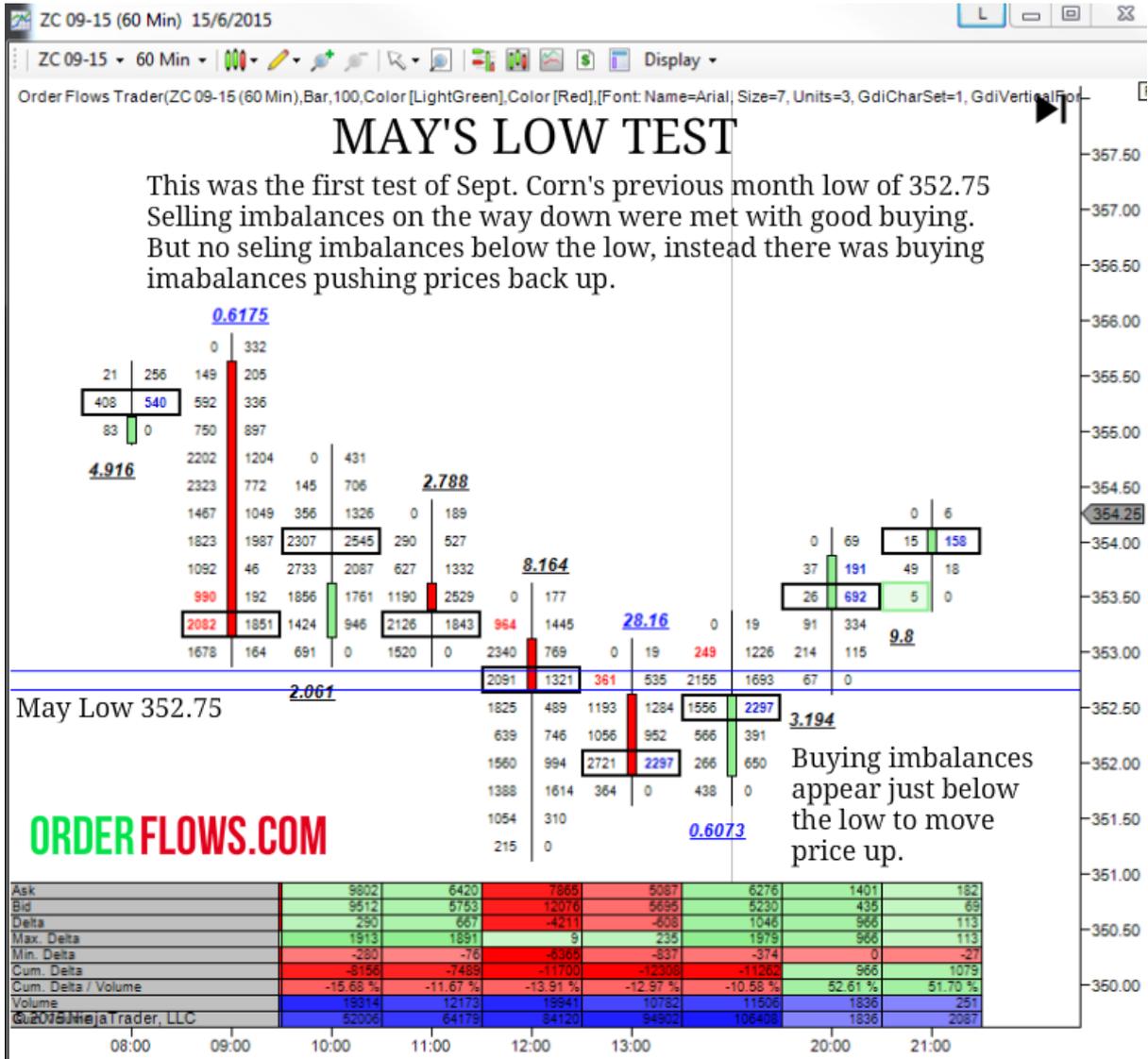
An important high and low to watch is the previous month's levels as they show where price was contained over an extended period of time. When the market takes out one of these levels you know that change is occurring in the market place. I find there are three things that can happen when you trade at last month's high or low. 1. The market will fail to take out the level and trade back into the range. 2. The market will take out the high or low and then re-enter the 2 month range and bounce off the level as it is rejected once again. 3. Trade outside of the 2 month range and stay outside of the 2 month range and new participants come into the market. The 2nd and 3rd market actions are where the big opportunities are as the market previous month's highs or lows.

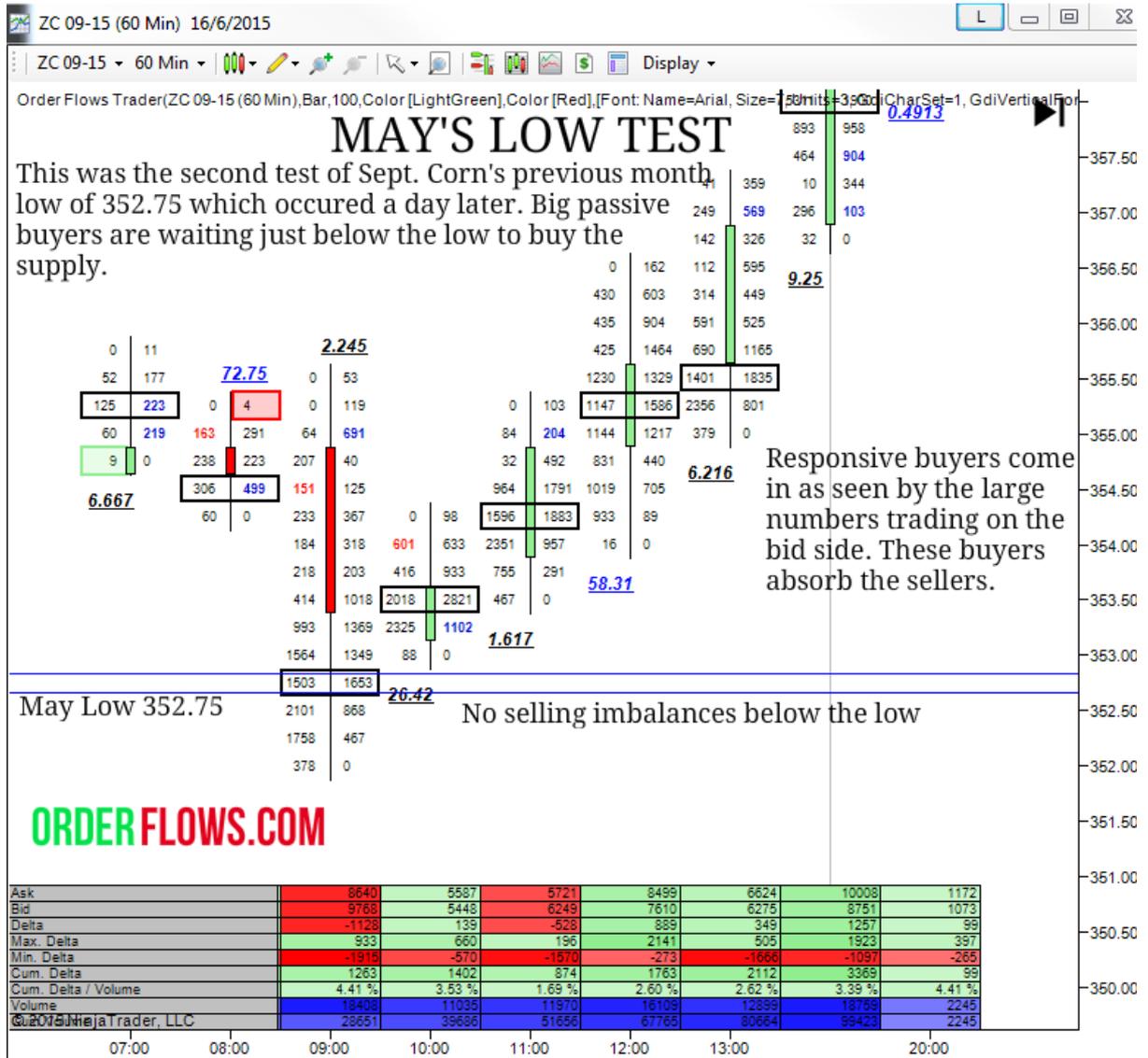
Short term traders who are not aware of long term levels have a high chance of getting run over by institutional trade participating at these

levels. Additionally, they may miss the potentially large intraday trading opportunities these levels often present.

So let's take a look at what happens with a test of a monthly high and low. In this example I will use the September-15 Corn futures.

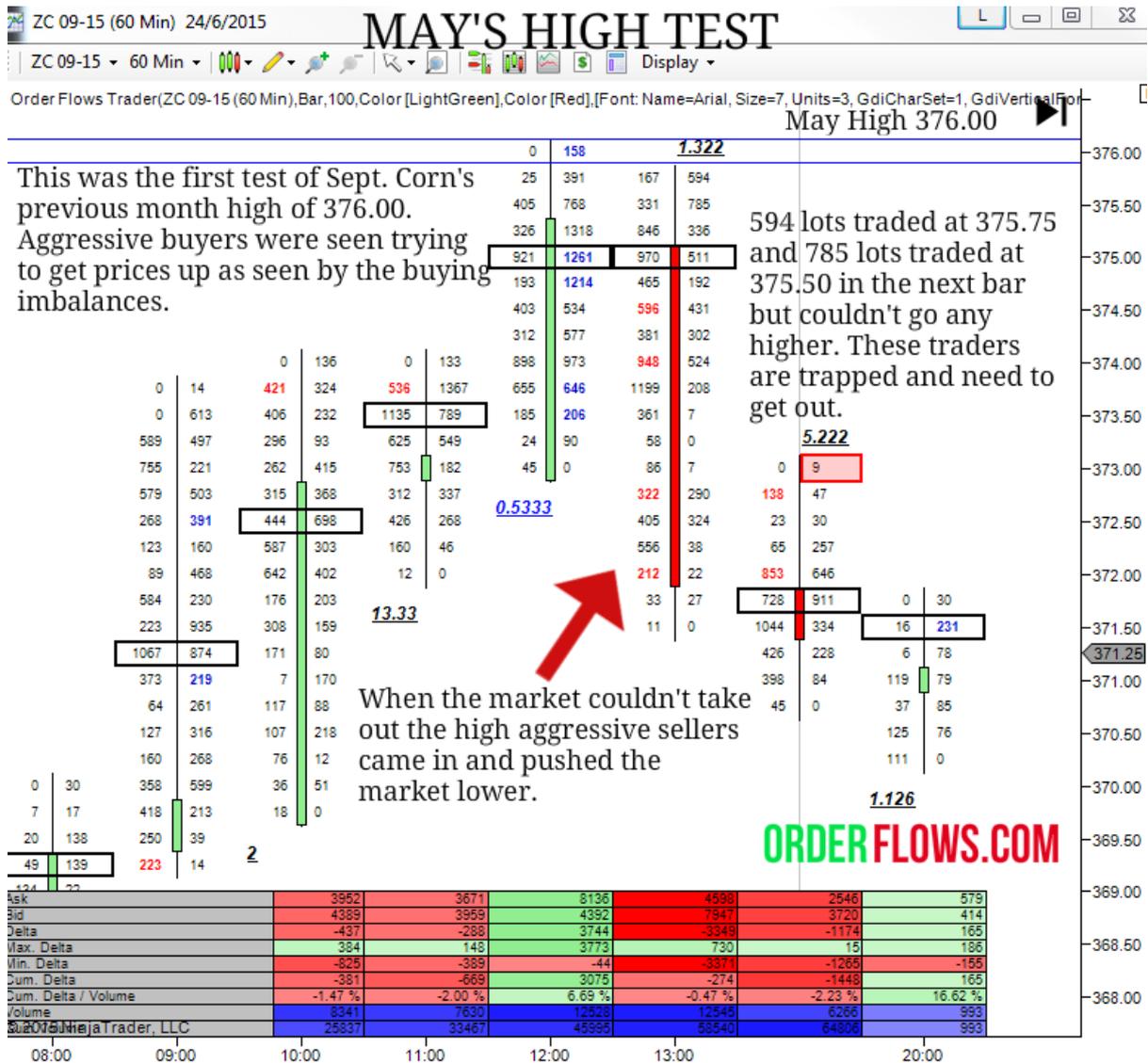






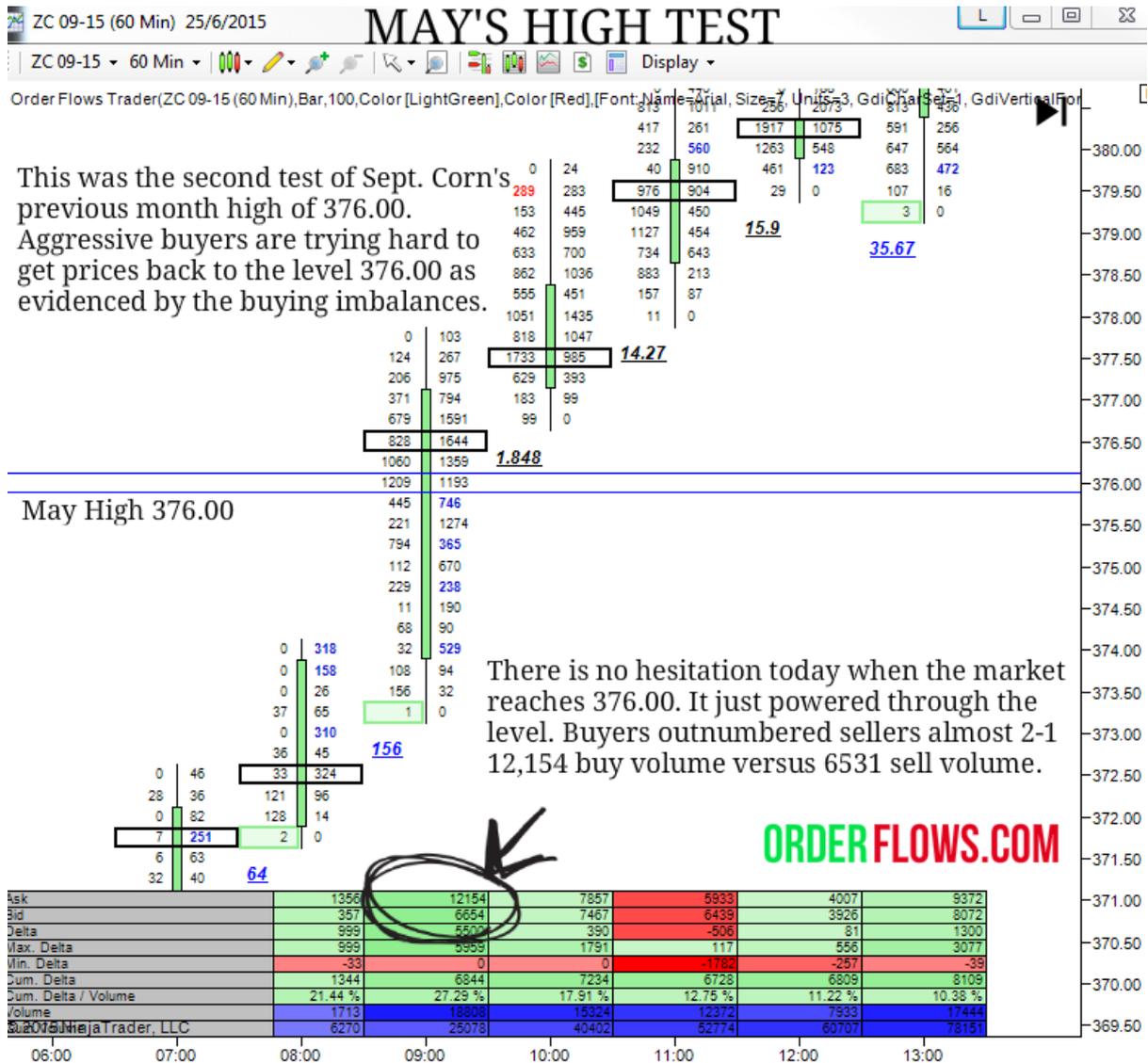
What I like about this chart is that as the market traded below the low you see 2101 lots were sold into the bid at 352.50, 1758 lots sold into the bid at 352.25 and only 378 sold into the bid at 352.00. But as the market started trading back up, only 467 lots were bought at 352.25 and 868 lots bought at 352.50, this signals to me that there isn't much interest in sellers trying to work offers below 352.75. In the 10:00am bar there is 1102 lots bought at the offer at 353.25 and 2821 lots bought at the offer at 353.50. Obviously someone had some selling to do, but the market participants just swallowed it up and kept the market bidding higher.

Now let's look at what happened when the previous month's high of 376.00 was tested.



This is a beautiful chart. The market traded right up to exactly the high of 376.00 came off, tried again in the next bar and couldn't quite make it back to the level. It was a tick off at 375.75 but a big seller appeared to cap the buying and the market sold off for the time being.

The next day the market made a run at the high again and here is what happened:

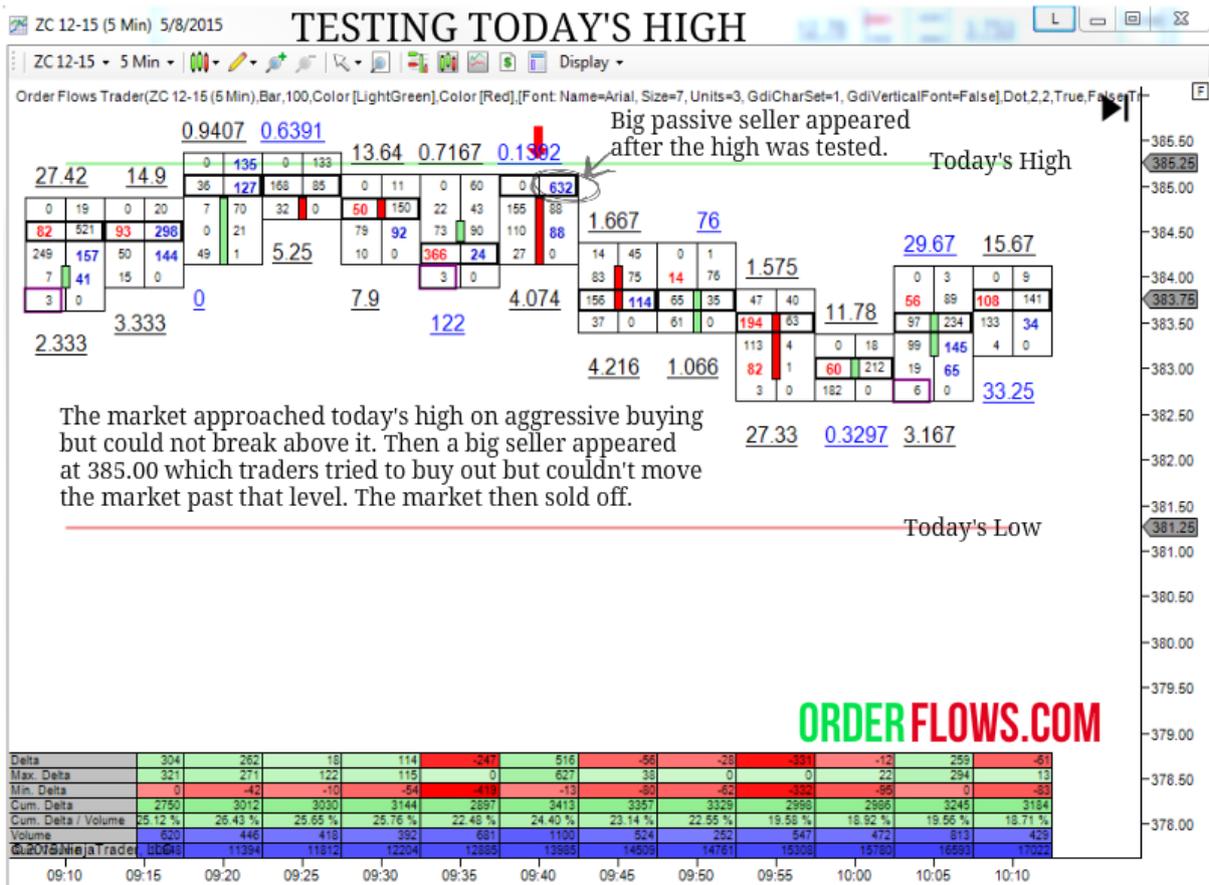


This is exactly what you want to see with order flow. Strong buying coming into a previous high, preferably aggressive buyers leaving buying imbalances and just moving through the level like it wasn't even an important level. The market never looked back.

While the market may not approach long term levels like previous month's or even yearly highs and lows very often, when it does the levels are extremely important. Institutions will often reduce their risk by taking off positions when the market reaches long term levels. If prices become accepted outside the price levels contained by the long term levels, these same institutions may decide to re-establish their position or enter into new positions.

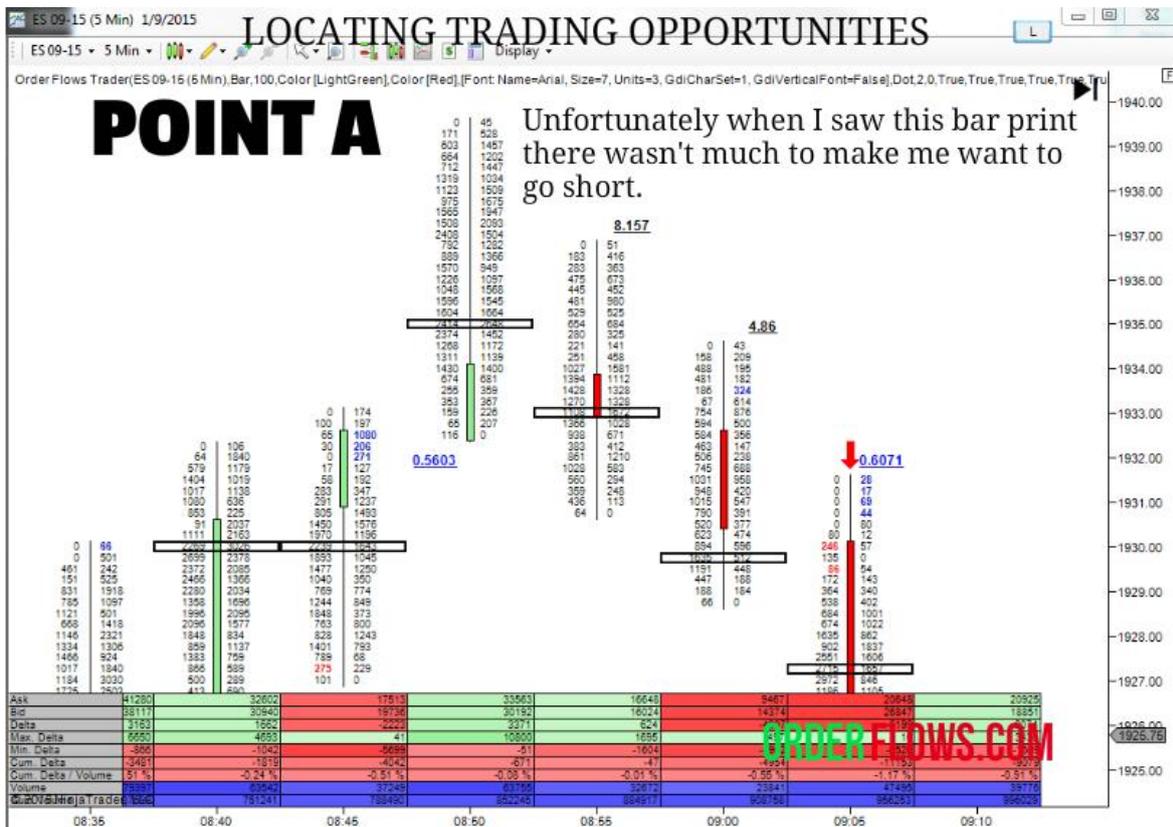
TODAY'S HIGH AND LOWS

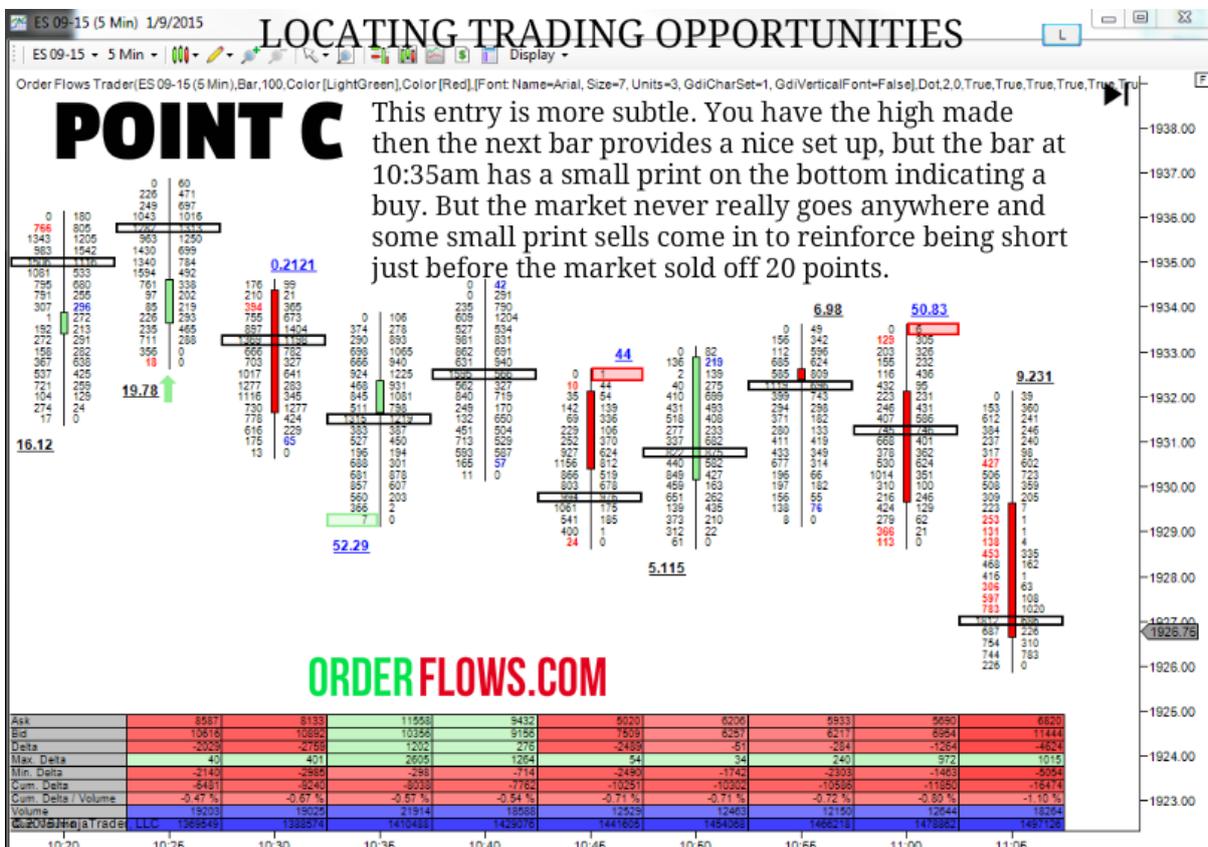
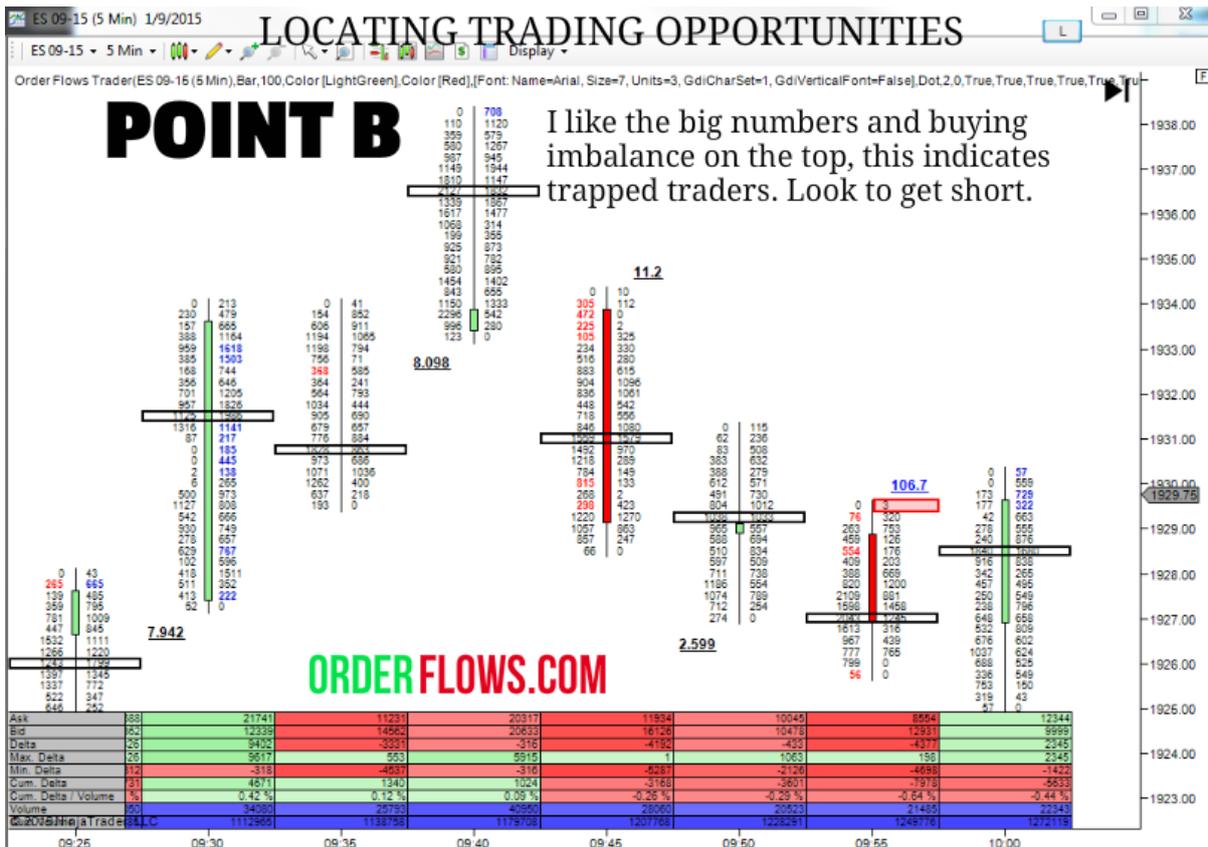
The high and low of the day is generally not going to be known until after it has been made. However there are often signs in the volume footprint if a high or low is going to hold. By judging the type of buying and selling occurred at a high or low you can determine if that level will in fact be the high or low. Sometimes it is easy to see, other times you won't know for sure. Stick with the ones that are easy to see as they offer the best reward for least risk.



Trying to pick the day's high or low can be like trying to catch a falling knife. However the nice thing about order flow is it can give you some trading opportunities once a high or low is made. You will never sell the exact high or low with order flow, but you can find trading opportunities just after the high or low has been made.

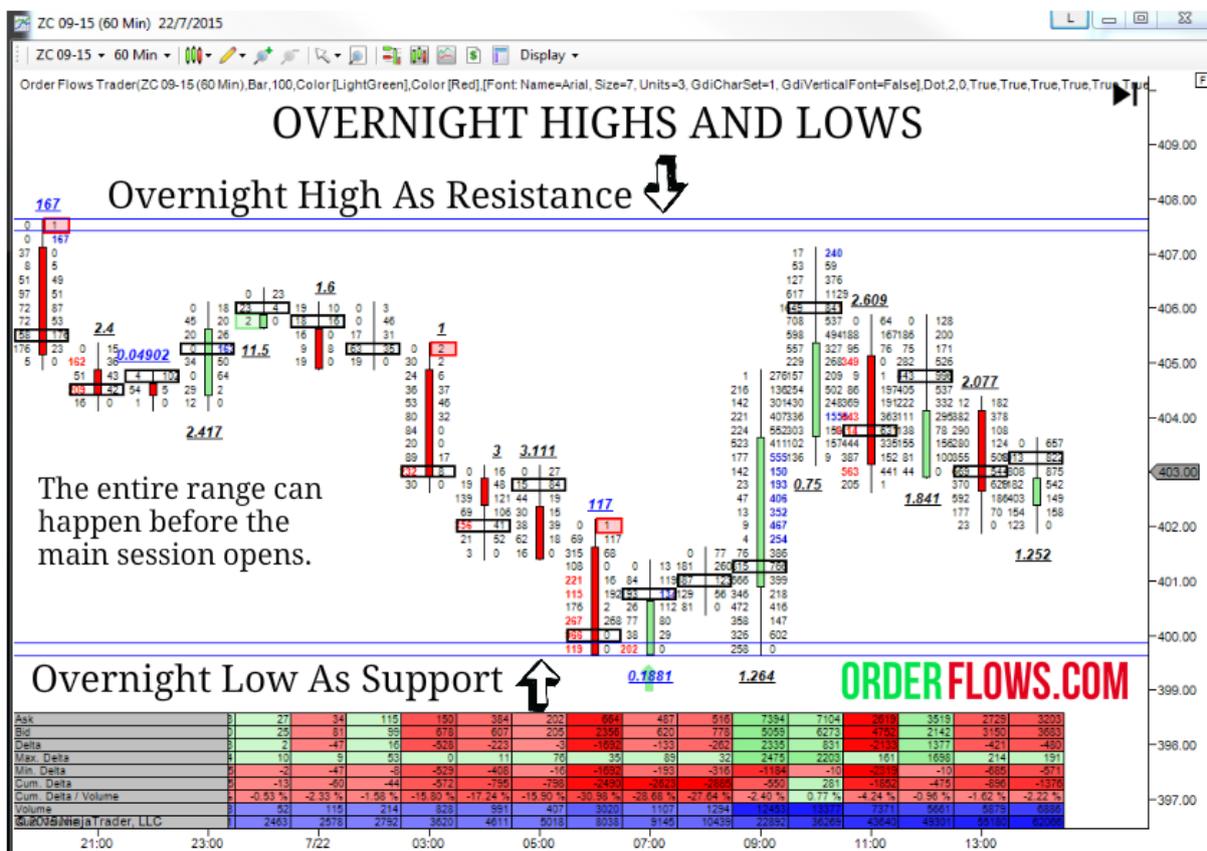
Also if a high or low has been made, when the market comes back to test the level it will either succeed or fail. Here is an example of when a high was made, point A and subsequent failures at point B and C.





As a trader your job is to find trades. That is how you get paid. But more importantly you need to find trades that have solid reasoning behind them.

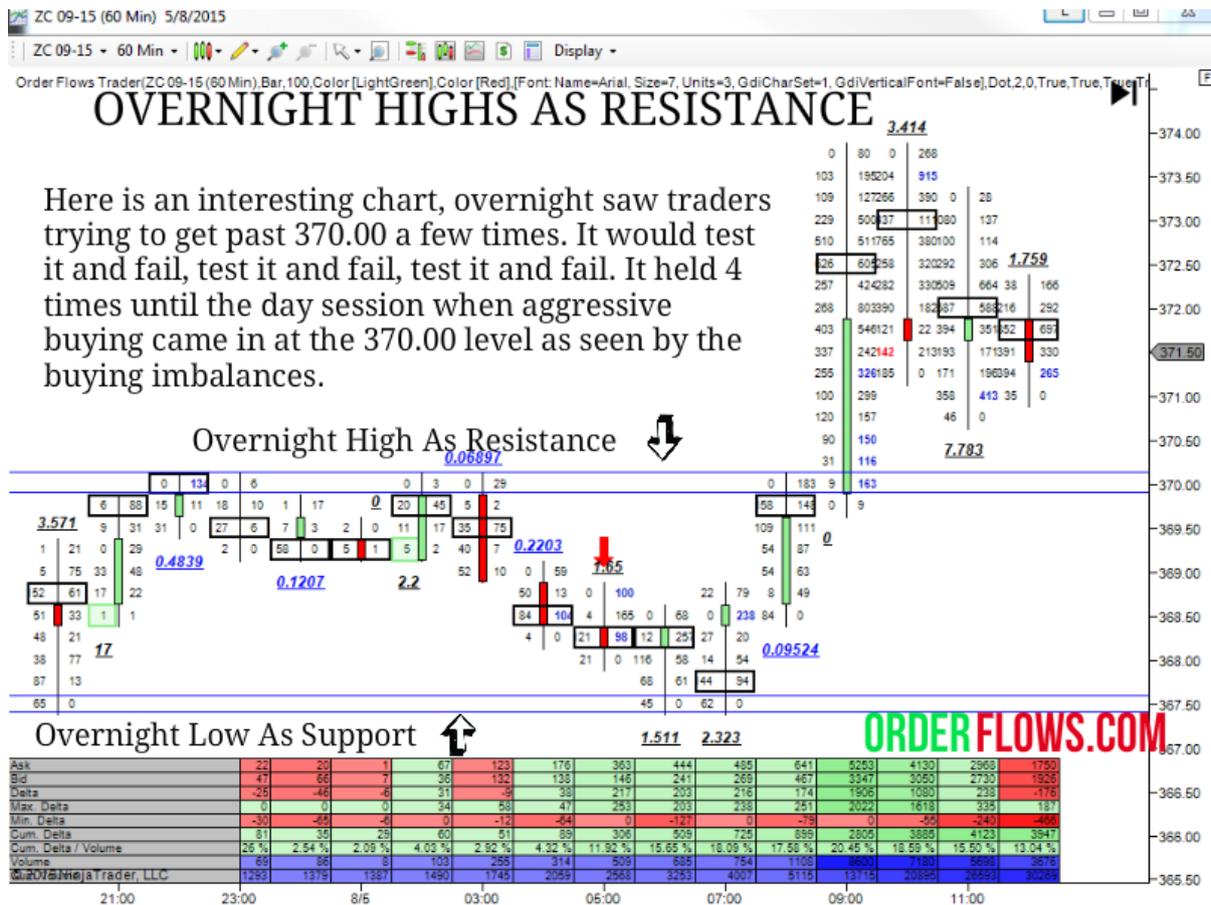
Futures markets now trade almost around the clock from Sunday night until Friday afternoon. A trading day which used to be 6 hours can now be as long as 23 hours. You don't see gaps occurring as much as you used to. Now if something happens in the evening or early morning, the markets are open and can react accordingly. Highs and lows made outside the normal trading day hours, ie overnight, often can help set the range for the day.



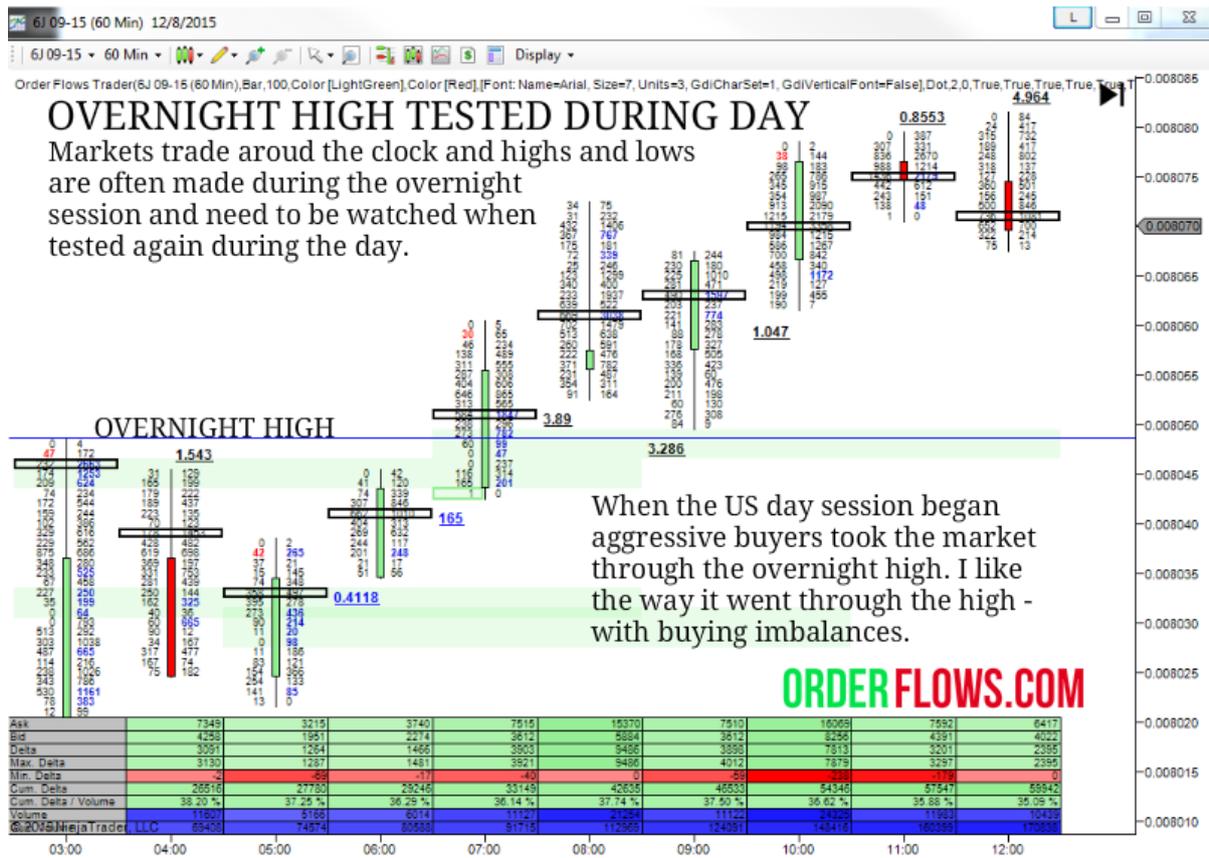
Around the clock trading is significant because it gives traders in other locations a better opportunity to trade. Highs and low that are made during the overnight session are significant levels to watch during the day. Unless the market is in a trending mode, the highs and/or lows made during the night sessions will be revisited at some point during the day session and it is important to watch how markets react to those levels. All major brokers and institutional trading firms have fully staffed desks that trade around the clock in all time zones. They are constantly

reacting to fundamentals affecting the market, trading accordingly and adjusting their positions. Keep an eye on the levels made overnight.

What I love about order flow charts is that you can determine where and when buyers and sellers are being aggressive. When the market is making new highs I like to see aggressive buyers. This shows me that the buyers are clearly in control. If I don't see aggressive buyers and instead see aggressive sellers near the high, I will look for the market to sell off. You always want to know who is in control of a high or low.



How about when a market comes back to the high or low? You want to determine if the level will be taken out and a new high or low made. If a high is to hold I like to see some aggressive selling come in and defend the level. Just as I would expect with a low, I would expect to see aggressive buying come in. If a low is going to be taken out, I expect to see aggressive selling come in at the level and below it.



When a market struggles to take out a high chances are lower that it will make a new high later in the session. Conversely, if a market struggles to take out a low then the chances are lower that it will make a new low later in the session. Again volume footprint charts tell you when a market is struggling to take out a high or low.

A good sign to look for to decide if a high or low is going to hold is if there are stacked volume imbalances of sellers (at a high) or buyers (at a low). A stacked imbalance is where there are a multiple levels of volume imbalances. A stacked imbalance shows who has taken control of the price area. If you are at a low and see stacked buying imbalances that is a sign that aggressive buyers have come into the market to sweep it off its lows. If you see selling imbalances near a high that is a sign that aggressive sellers have come in to move the market lower. While you won't see activity like this at every high or low, when it does appear you can trade with more confidence.

Markets rally off of lows for two reasons. Traders are covering shorts. Traders are getting long.

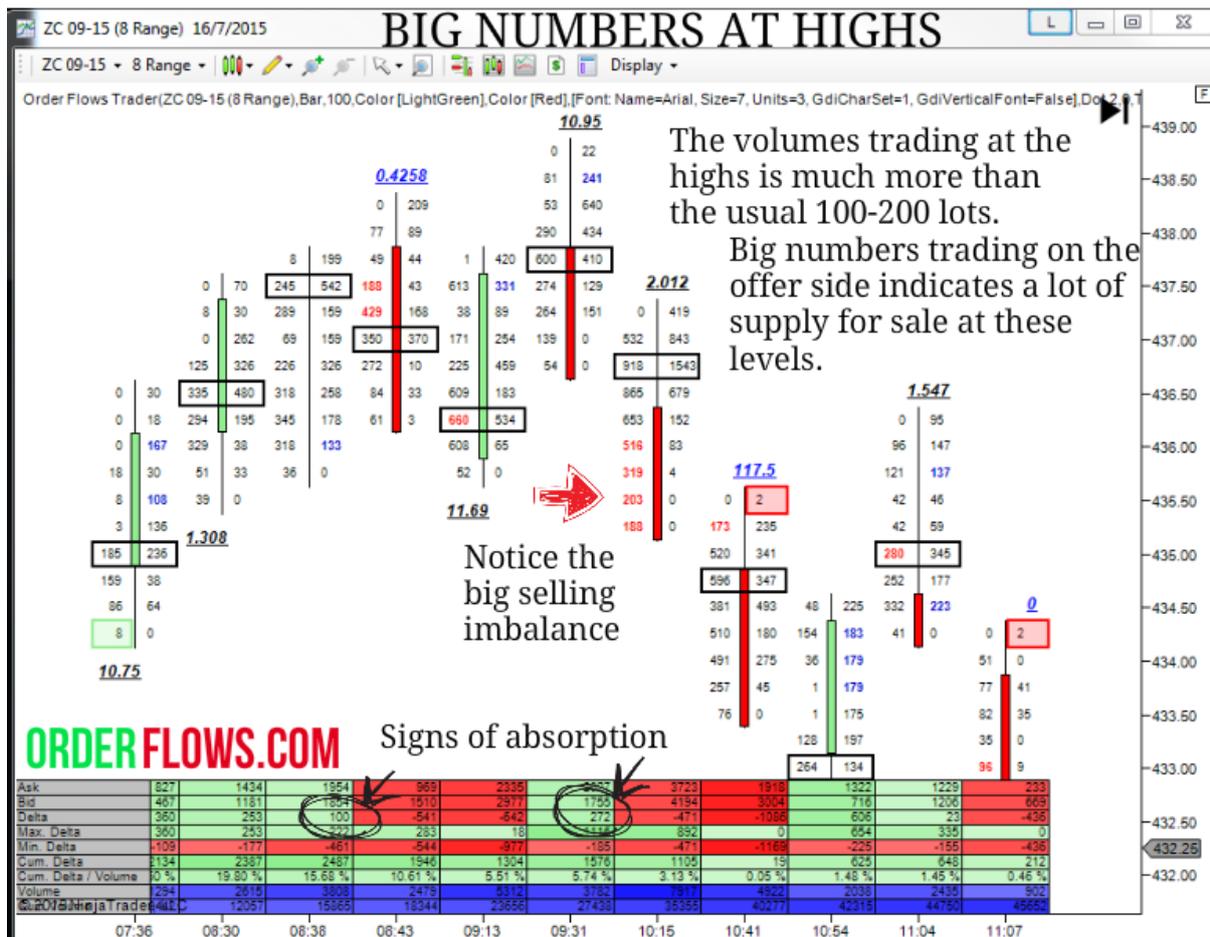
Markets fall off highs for two reasons. Traders are taking profits (in other words covering their longs, but it is not phrased in that way). Traders are getting short.

Picking when a high of day or low of day occurs and the subsequent reversal can be extremely rewarding, but can be dangerous if you are wrong and don't manage the trade properly.

Order flow charts give you the ability to look inside the bar as it is forming on the chart. There are certain patterns I like to look for at and near highs and lows. They are large prints and small prints.

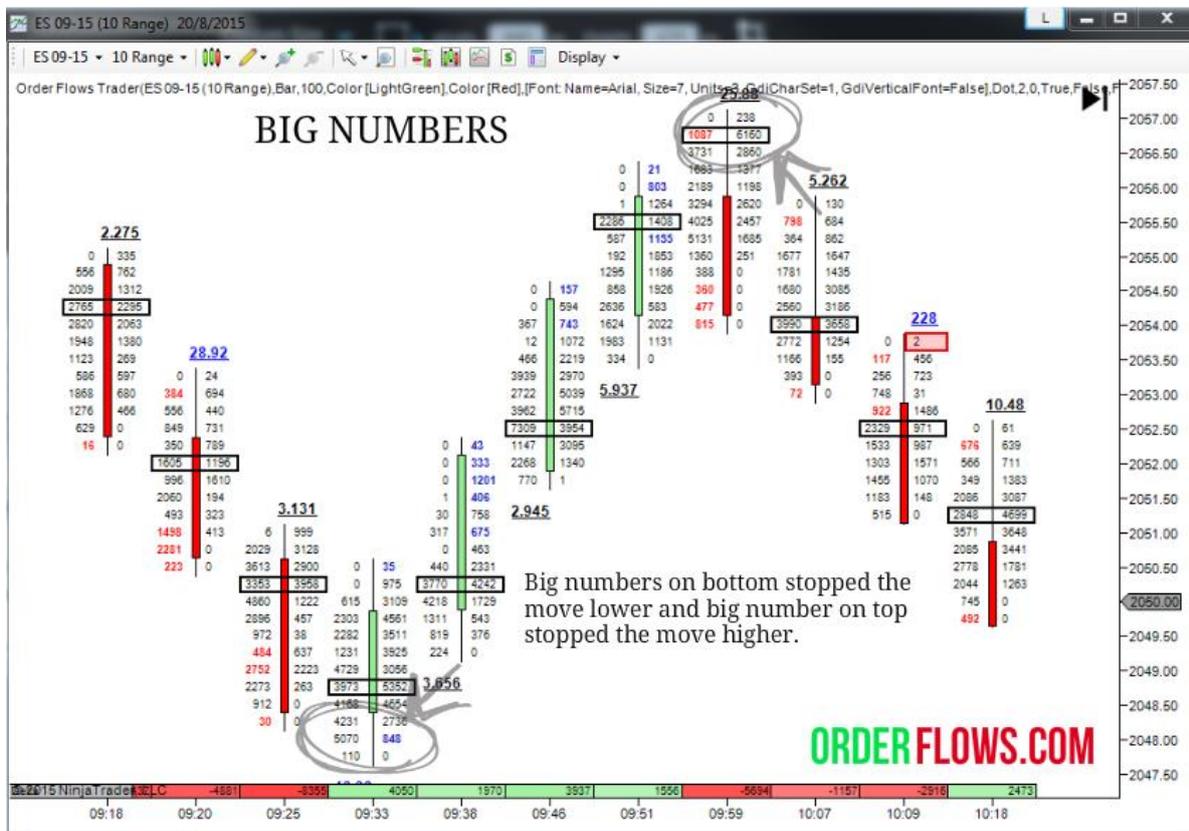
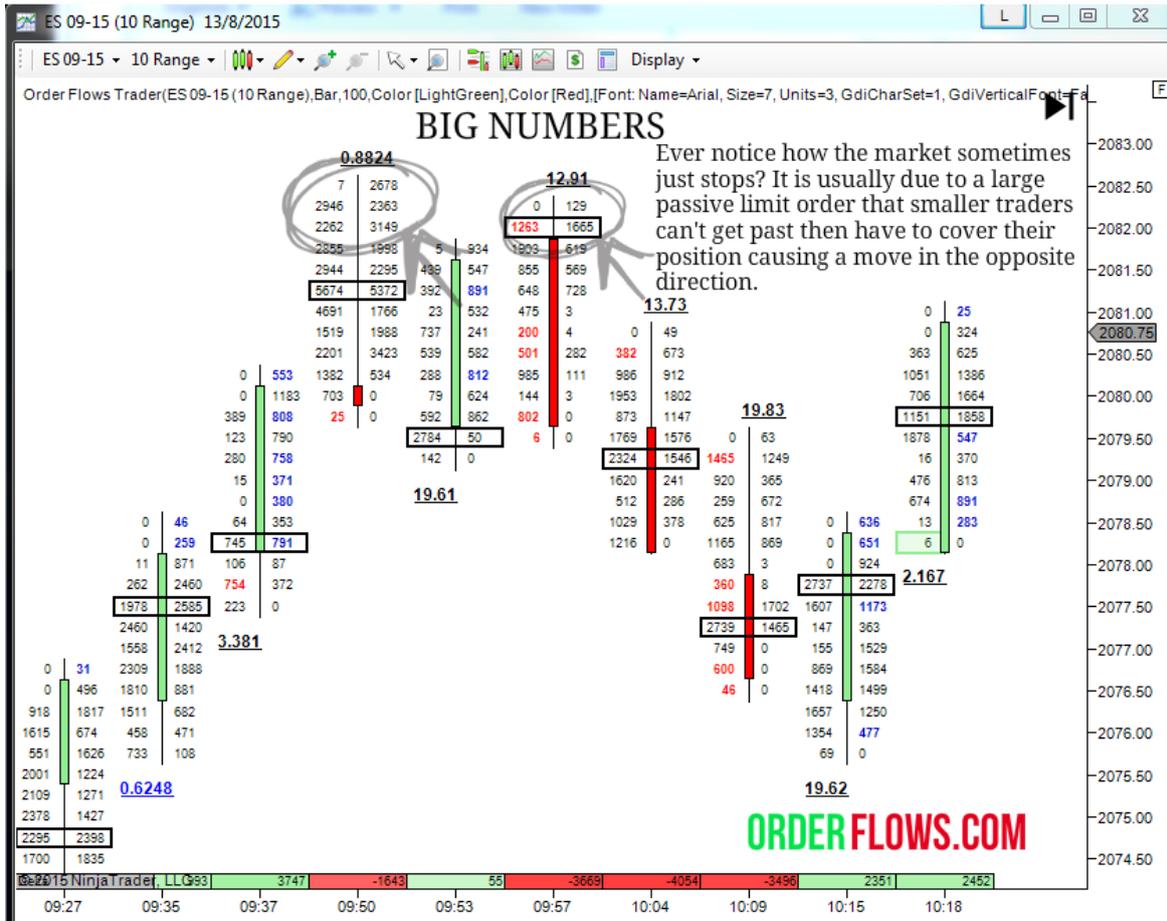
When you see HUGE volume as you reach highs it is a good sign the market may turn if there is no follow through or there is signs of absorption. If a market cannot break through huge passive sellers and turns lower, the weak buyers on the way up will be looking to get out of their positions before they suffer losses causing a liquidation break. The result of this is that the weak hands are cleared out of the market on the liquidation break, their supply has been transferred to the stronger hands and the market is now ready to rally again. This is the meaning of the saying "a market needs to break before it can rally." I carry forward this previous level of HUGE volume that traded on the offers at a high to future trading sessions to watch and perhaps when we reach that level again.

It is important to note that the huge volume doesn't have to occur exactly at one price point. It can be scaled in there as it is not uncommon for passive sellers to work scale orders.



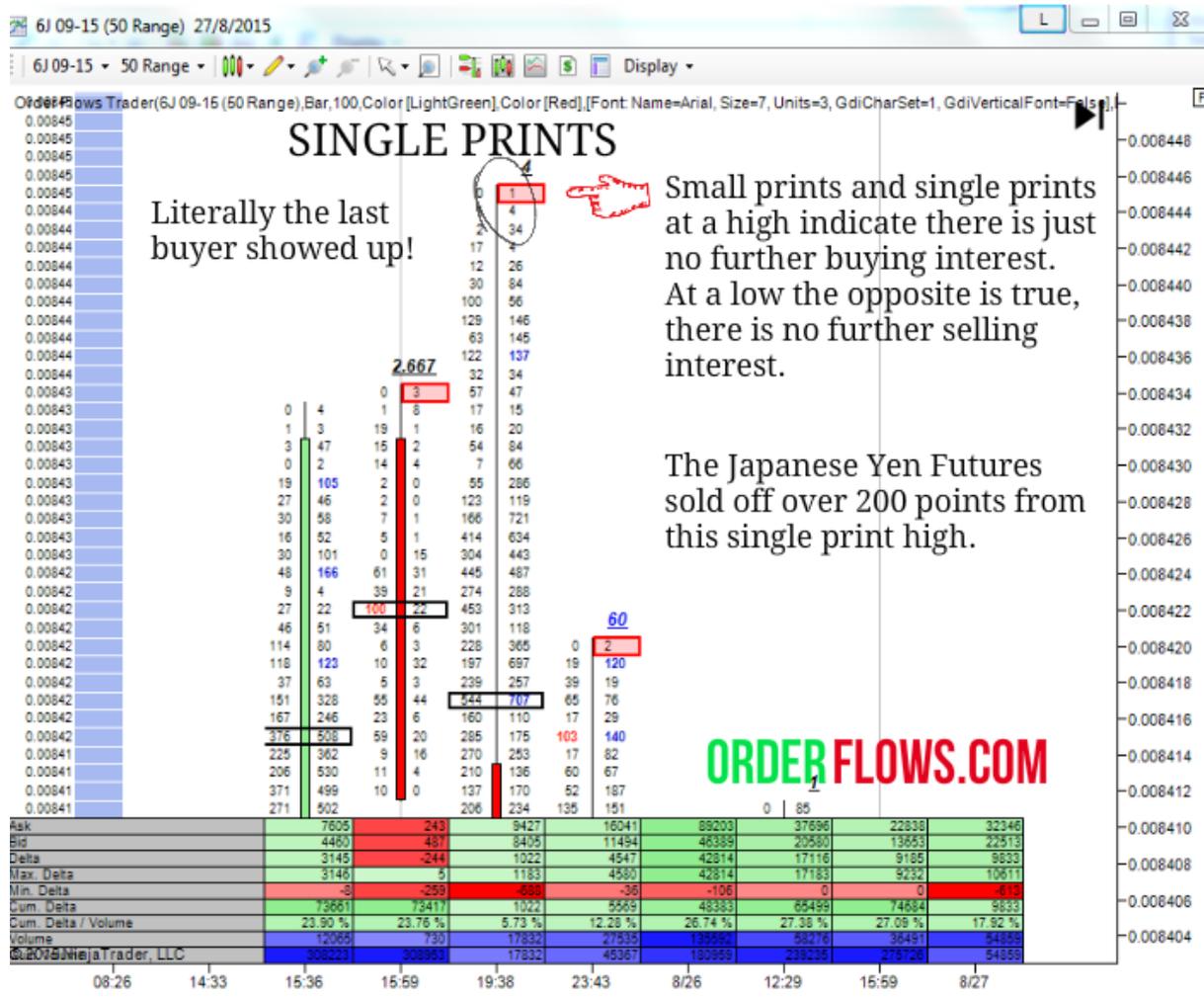
Large prints that you see at a high signify that there is a large seller, it could be one institution or it could be a combination of several market participants deciding that the high is such a great level to sell that they sell as much as they can to all the willing buyers. They want to get rid of excess inventory at advantageous prices. This is obvious in an order flow footprint chart because it sticks out like a sore thumb. When you see an abnormally large volume print at the high the market is telling you that institutions are selling to such an extent that higher prices are not possible. The market has basically been “capped.” Institutions will not cap the market if they expect higher prices; they will do it if they expect lower prices.

When you see abnormally large prints at a high it shows that institutional selling has come in to the market and is willing to offer their supply for sale. This will usually stop an up move at least in the short term. When the market comes back to test the highs and cannot break that high, it is a sign of market weakness.



When you see abnormally large prints at a low it shows that institutional buying has come in to the market and is willing to accept all the supply available. This will usually stop a down move at least in the short term. When the market comes back to test the lows and cannot break that low, it is a sign of market strength. The opposite is true for large prints at a high.

Small prints at a high or low are just as significant, especially if it comes after a large print. It shows that the last buyer (at a high) has given up or that the last seller (at a low) has given up. Markets that are rallying stop and go down when the last buyer has bought and there are no more buyers. Markets that are going down stop and reverse when the last seller has sold. Granted single prints are extreme, but I like trades that stick out like a sore thumb. You can actually use single digit prints. Like 3 or 5 or 8.



This is how the trade played out over the next few days...



Single prints suggest weakness. The market simply cannot follow through in that direction and turns. It could be caused by someone trying to trigger stops. It could be the absolute last buyer came in and bought.

When you see extremely large prints or single prints at a top or bottom look for a turn in the opposite direction. The risk for these trades is small as it is just behind the print that stuck out.

Knowing when a market is ready for a reversal offers low risk entry points with possible high returns. Trying to identify them with a traditional bar chart can be difficult, but if you follow the order flow you can notice it developing and trade it accordingly.

Time spent at a high or low is also important. For example, when the market spends a long time near the lows without any downside follow through. The market came down to the low and sort of hung around and trade was slowing down and the market just could not push any lower, the intraday short start to become anxious. They had helped to push the market down to the lows but they weren't getting paid for it. Prices then start to tick higher, the short term traders start to cover, pushing the market higher causing more traders to cover their short positions. Ultimately there is a short covering rally and the low is made.

MACRO APPROACH

The macro approach is how I approach the market on a daily basis. I want to get a big picture market perspective so I start with a longer term monthly and weekly charts. Do I see upward continuation, downward continuation? Then I will look at daily and intraday charts and ask myself is the market in balance? What are the value areas? What are levels where there were big passive buyers or sellers?

Each day before the market opens I identify these levels since these are the levels I will be trading around. Traders often get so focused on the short-term market trends, economic reports, Bloomberg news, CNBC TV, etc. that they do not keep a perspective on what the market is actually telling them.

More often than not traders remain too narrowly focused on price and short-term bars, never fully appreciating the market's ongoing auction process that takes place daily. By taking a step back and looking at the bigger picture you will get a clearer market perspective and it will save you from becoming hypnotized by intraday price action. Staring at a DOM or a chart all day can be dizzying.

With a macro approach I can see where the important long term levels are in the market so I can react accordingly.

TRADING NUMBERS

Knowing where price can trade to and react off of is essential to success in trading. You cannot just approach the market with a gut feeling for the day and trade according to it.

Building on the macro approach, each day we must prepare for the trading day by making a note of important levels where the market may have reactions.

- Yearly High
- Yearly Low
- High 2 months ago
- Low 2 months ago
- Last month's high
- Last month's low
- High 2 days ago
- Low 2 days ago
- Close 2 days ago
- Yesterday's high
- Yesterday's low
- Yesterday's close
- Overnight high
- Overnight low
- Resistance
- Support
- Pivot Point
- Yesterday's Value Area High
- Yesterday's Value Area Low
- Economic Releases due today and time
- Any economic events today and time

It may seem like a lot of numbers to keep track of, but the reality of it is that it should only take a few minutes to make note of these levels on your chart.

OTHER FORCES

One of the basic premises in trading is that markets will do what they are supposed to do. If they do not do what they are supposed to do, then there is a reason. That reason is that there are unusually strong forces at work temporarily acting contrary to what the markets want to do. The trader can take advantage of this knowledge and go with the temporary strong forces and make a profit. It may not be known why the other forces in the market until much later, but being able to recognize them allows a trader the chance at short term profits.

When you see a big amount of volume trading at a top and the market can't go bid there, that is a sign of weakness. You should look to get short there because there is another force at work. There are ample traders buying but the market just cannot go any higher as it should. This is a clear sign of other forces at work.

You will never know the intentions of a trader yet to enter the market. At any given moment there could be an institutional player ready to step into the market and move it opposite of what you predicted.

An outside factor in the market that causes havoc with order flow is when there is an economic report coming out or an FOMC meeting. Order flow will dry up ahead of the announcement and explode just after the announcement. When I started out in the futures business as a clerk on the CME floor one of the things I learned was that when a number like Non-Farm Payrolls comes out the institutional players are not the ones doing all the trading that causes the knee jerk spike up and down reaction to price that you see on the chart. They are already positioned on how they view the market. It is usually the weak holders scrambling to cover their position and stops getting hit. When the market slows down and has stabilized is the time when the institutional players will decide what to do. Sometimes the actual market direction might not emerge until the day after a big announcement or number.

I am an advocate of staying out of the market slightly before and just after any important number or announcement when trading in the short term. Of course there will be times the market just gets blindsided with some news. You just have to be prepared to take the loss.

LONG TERM APPLICATIONS OF ORDER FLOW

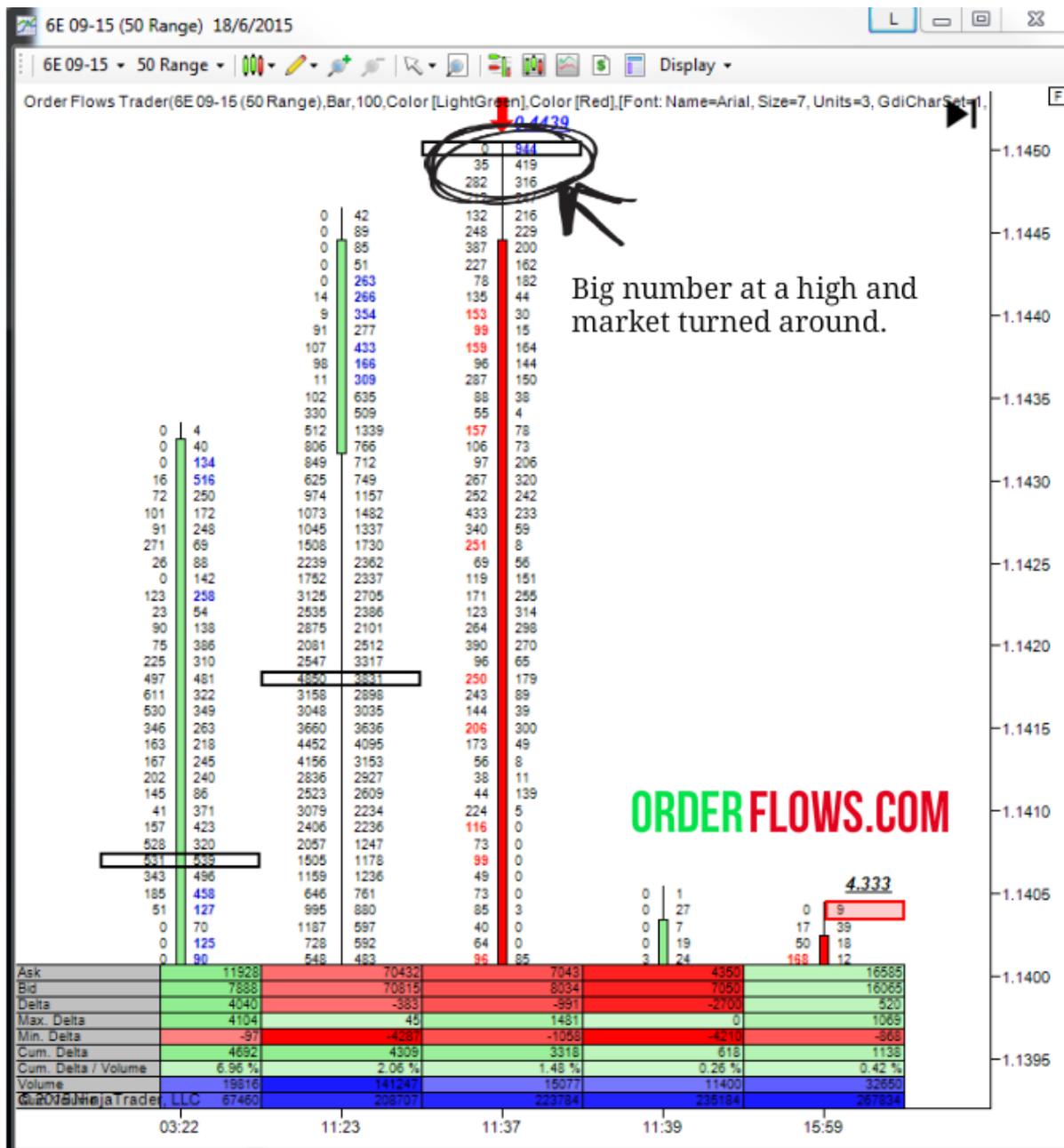
Most traders who use order flow tend to apply it to short term trading decisions. However it can also be applied to longer term outlooks. Position traders attempt to come up with models to forecast price movements of markets by analysing supply and demand forces in the economy, economic indicators and even government policy.

One of the problems with forecasting models is that past variables are used to extrapolate future values. A market forecast is only as strong as the data used to make it. Unfortunately fundamental data is usually based on samples and are estimates at best. These estimates are usually subject to revision.

The same theories of order flow that appear intraday can be applied on long term charts. Here is a nice example of the Euro Currency futures. It hit a high at 1.1450 on June 18th then sold off about 250 ticks over the next few days and down below 1.0850 over the next month. Could you have predicted it by looking at traditional candlestick or bar charts? Maybe you could have. It is always easy to look at a chart after the fact and say that you would have sold here and bought there. You wouldn't have sold the exact high, but realistically you could have sold around the 1.1400 level. What you need are concrete signs of a turning point.



And here it is. At the high of 1.1450 you have a buying imbalance of 944.



By itself 944 is a big number. But for extra confirmation you also have a buying imbalance at the top when the bar closed lower than it opened. On the two preceding bars on the way up you can see some buying imbalances and the market still went up. When it hit 1.1450 the market hit a brick wall. There was a big seller or sellers, it doesn't really matter if it was one or more. The buyers just could not push the market any higher past that level. Then you see a stacked selling imbalance on the way down. The short term traders who bought at 1.1450 are now stuck and got to get out and they can't sell fast enough.

This top just sticks out like a sore thumb as a reversal.

Here is the daily chart. Again based on a daily candlestick would you have sold? There are a couple of ways to look at it. You can say that 1.1450 is a nice round number so there should be some resistance there. But if that is the case, why did it blow through 1.1400 even on the way up and down? The previous month's high was 1.1486. So we are still 36 ticks off from it. With order flow and looking inside the bar you can see what is actually going on between the buyers and sellers to make informed trade decisions. Order flow can identify reversals that may not be obvious to the rest of the trading world and that is reason enough to use them.

The advantage of order flow analysis is that the underlying forces of the market are shown in a recognizable visual form. The market participants are showing you what their intentions are.

TRADE MANAGEMENT AND MONEY MANAGEMENT

Trade management is an overlooked part of trading. Nearly every book written on trading covers money management. While defining your monetary risk per trade is important, a trader should be able to manage their trades to earn the maximum they can out of a position while knowing when a trade is not working out.

Professional traders recognize the fact that even when they do everything right, they will sometimes find themselves on the wrong side during a trade. Market conditions are always changing and they accept that it is part of trading. Even the best looking trade set ups will sometimes fail.

Create a set of rules that give you an edge. If the rules are not met then no trade, PERIOD. Once you start to bend the rules you start getting into trouble and getting into trouble leads to one thing – loses. Pick your spots to get into and out of trades. Ideally what you want are “sweet spots” of entry so that if the market starts to move against you it doesn’t feel like it.

By taking a reasonable profit if there are signs in a change of trend or change of reason for taking the trade you may avoid a loss. You do give up profit potential though. But more importantly you have the chance to trade again. When trading with order flow you can usually see levels where the markets reach a level and can’t move anymore. Or you can see that the market is full of aggressive players and there is no need to get out of the position yet.

All successful traders practice sound trade and money management. Traders minimize their losses and maximize their wins. There is no worse feeling than having been up substantially in a trade only to exit the trade at a loss simply because you lost your discipline with your trading plan, money management and failed to heed your exit strategy.

There are only five possible outcomes to any trade. You can have a big winner, a small winner, a break-even trade, a small loser or a large loser. You can make a lot of money trading if you do any of the above, except taking repeated large losses. This is why stop have to be used in some form. But you need to monitor the trade so you are not always

getting stopped out for the maximum loss. Scaling out of positions gives you a way to get out with a small profit rather than a total loss.

I like to get in, capture what part of the trend I can, get my money and get out. There comes a point in every trader's life that he will realize that he will not pick up every tick in a trend.

Let me give you an example, let's say you decide to go long corn at 357.75, you know that at 351.00 that your set up would be invalid so that is your stop level. You have a target at 380.00. At first the trade goes well and corn rallies up to 373.00, then the market starts to range trade and you notice some absorption appearing around the 371.00 level, then the market start to drop to 367.00 on some aggressive sellers. The market conditions have changed and there are two clear signs of market weakness. You didn't reach your profit target and the conditions are now such that it looks unlikely that you will. You can either start cutting your position and taking some profits, or you can just try and let it run in a "damn the torpedos" type of trade – either go to the target level or go to the stop level. The former would be the prudent thing to do since the market has already shown you that it has changed.

Loses are a part of trading. That is a fact. One way of looking at it is it is part of doing business. That is why you have to control your losses. Keep them small and manageable. Don't let one loss be the cause of your entire trading career failure. A loss should not be a bullet to the head. It should be more of a punch to the body, one that you can take and keep trading. Keep loses small so you don't get knocked out of the trading game.

It is imperative that a trader understand how to manage their risk. With proper risk management, a trader can have more losing trades than winning trades. As long as the winning trades are bigger than the losing trades they will still make a lot of money.

Being a good trader is about making money day after day. Never losing a lot, losing only a little and not losing often. A trader wants to make money often and make a lot when he does. How does a trader do this? They look for quality trades. It is not just about looking for something to trade for the sake of trading. It is about spotting quality trades and taking them. It is not always about getting the big homerun trade every time. It

is about consistency. If you are not consistent your capital will slowly erode and when the big homerun trade comes you won't be able to capitalize on it.

The size of a move is nearly impossible to predict until it happens. Don't spend all your time trying to hit home run trades. Look for low risk high probability trades that give you an edge and aim for profits of all sizes. The setups I have laid out for you in this book will sometimes result in a big move, sometimes a small profit or a small loss.

An often overlooked part of trading/money management is a trader's own pain threshold. This is the level where a loss starts to have an emotional impact on a trader. Knowing your pain threshold will reduce the emotionality in your trading decisions. If your monetary threshold is 10 ticks but your stop level is 20 ticks away you will find yourself wanting to get out of trades too early because you are afraid of losing more. This will have an adverse effect on your winning trades.

The worst enemy you can have marketwise is the desire to make the market do what you want it to do. Your wishes don't count. The market has a job to do and does that job in its own way. If you feel that you are wrong just get out of the trade.

You have to determine the price you want to pay, the level you want to get in. If you miss a trade don't chase it, you will lower your profit potential and the reason for getting into a trade may have passed or the market conditions changed. The markets provide trading opportunities everyday several times a day. Missing a trade is not the end of the world. There will be many more trades in the future.

A mistake traders make is getting into a trade and waiting for the market to react and then it doesn't do anything, it just range trades, in and out of profit for a while. When you have a setup based on certain criteria and the market doesn't react the way it is supposed to that is a clear sign to get out or reduce the size of the position to minimize the risk. If a lot of time has elapsed and the position is not in the money, the chances of it going into the money are getting reduced with each second of the clock. Traders sit and wait for a breakout when there is no breakout occurring. If the breakout is not there, get out and prepare for the next trade opportunity. Don't marry a trade that is going nowhere hoping that it will

finally turn and go your way. You will miss the other trades that are setting up. After a while if a trade is not developing as planned you have to start thinking of bailing out of the trade as the reason for getting into the trade may have changed.

An over looked form of stop is a time stop. Most people think of stops in terms of price, if the market moves against them a certain amount they get out. A time stop is based on time. When a trader gets into a position but the market just range trades and goes nowhere over a long period of time, the reasons for taking the trade in the first place have diminished because the market is not moving. It would be wise to get out and reassess the market as opposed to having a position on and being married to it. A trader can think more clearly without a position on than with a position on going nowhere or even slightly against him.

There is a luck factor involved in trading. Anything can happen on any given day. There are going to be times when you join the sellers and you are the last seller and you sell the exact low and the market turns and rallies against you. There are going to be times when everything looks perfect, you get in and the market moves but only a 8 or 9 points and your target is 10 points. You miss your target by one point before it moves against you never to return. There is nothing you can do about it because you cannot will the market to move the extra tic. There will be days when you can do nothing wrong. You get short the market and it just falls out of bed and you make a ton of money. Luck goes both ways.

Retail traders think that they can hide behind support and resistance levels. That if they place their stops behind support and resistance levels their losses will be minimal. But the reality is that many professional traders know where these levels are go look for them to trade around because that is where the volume will be.

The most important question when deciding to enter a trade is “what risk am I getting into with this trade?” Most new traders read a few books on trading and the books all tell you that you can manage your risks by using stops. But what they don’t tell you in the books is that stops will help you get out of a position but there is no guarantee you get out at your desired level. The market can blow right through your level and you

can be filled at a price much worse than your desired exit level. Using stops is not risk management.

There is a lot of nonsense in the market when it comes to stops. While I agree that stops should always be used, as traders are wiped out not by taking relatively small repeated loses, rather traders are wiped out by taking an occasional big loss. A good stop loss point should be part of your trading plan and decided upon before any trade is entered. You need to be willing to get out of a trade when the reason for being in the trade in the first place is no longer valid. Saying that you have to use a hard and firm 10 point stop or something like that on every single trade is wrong. Yes, you do need a point at which you have to get out of a trade no matter what. But a trader will realize that when the conditions change that they need to get out.

The most important factor for choosing a stop loss level is actually very simple. It should be the price level that would indicate that the setup has become invalid. This should be common sense. If you get into a position based on a bullish setup, where would the price need to go to invalidate the setup?

Getting stopped out of trades too often is a sign that your stops are too tight. You may think having tight stops make you a prudent trader but you are actually increasing your risk and the chances of getting stopped out. Trades need a little room. You should look to place your stop at a place where there is a structural reason. Not a hard and fast one size fits all type of stop. You should not be getting stopped out too often. If you are always getting stopped out, it is a sign that you still have a lot to learn. You should be getting out under your own power and decisions. When I first started trading, I swear that I thought I was psychic or something for getting out or setting my stop right at the exact level that the stop gets elected then the market dramatically turns around and goes directly to my profit level. Order flow footprint charts give me better stop locations.

Remember that not all trades work. Although the probabilities are greatly in your favour that the trade will be successful, there is also the small probability that the trade will fail. If a trade does not work out that doesn't mean that the analysis was incorrect. There may have been a change in

market sentiment from the time the trade was established. With order flow analysis you will be able to detect the changes and exit the trade.

Think like a boxer. A boxer is not going to win a fight unless he can take a lot of hits. When you see a boxer getting punched it doesn't mean that he is going to lose the fight. It is his ability to absorb the hits and come back and be aggressive and punch back at the right times that determines if he will win or lose.

A lot of self-proclaimed trading gurus tell you that once you are in a position and that it starts moving in your favour that you should move your stop to break even. The problem with this is that when you are trading around a level, especially a macro level, there will be a lot of tug of war going on between buyers and sellers. If you are convinced in your method of trading you have to give your trades a chance to get to your level. One of the worst feelings as a trader is knowingly leaving money on the table by moving your stop to break even too soon.

There is a saying "You will never go broke taking profits." But the second line should be "You will never get rich getting out of trades early." Taking small profits is the surest way to ultimate losses as small profits are never allowed to develop in full size or even enormous profits.

A trader does not need to worry so much about their stops getting elected when they have a better read on the directional bias, or better entry level or market timing. When a trader stops following the same old technical analysis that everyone else does and starts looking at market structure then they don't have to worry about their stops so much.

Your decision to get out of a position means that you think the market conditions have changed. When you are in a position your thoughts will be biased to support your position. You must remember the reason for getting into a trade in the first place and respect it. If the reason for entering into a trade has disappeared and you are still in the trade, then you are just looking to lose money.

Once you have decided to get out of a trade, don't think you can pick a price level to get out at, just get out and take a fresh look at the market. Every now and then you may be able to pick up a few extra ticks here and there trying to pick a level to get out at, but more often than not the

market will move away from you and then you will end up taking a full loss at your stop level just because you tried to save a few extra ticks.

Exits are the most important half of the trading equation because where you get out of a trade determines your profits and losses. So don't take it lightly. Most traders are focused on the trade entry and not so much on the exit.

PROPER TRADE EXECUTION

Proper trade execution is the ability to act on an opportunity the moment you identify it. While it is easy to look at a chart after the fact and say that you would have sold here or bought there, the fact is that it is easier said than done.

There are no guaranteed outcomes when it comes to trading. Every time you enter into a position, you put your money at risk. But traders want guaranteed outcomes and that is why they hesitate to put on a position or get out of a position.

When you enter a trade or are in a trade it is because of a conscious decision you made about the state of supply and demand. Unlike gambling, where the result is random and not based on your analysis, when you lose a bet at a casino you accept it because it is random. When you are in a trade and it is losing money you start to second guess yourself and take on additional stress.

Proper trade execution is the ability to remove the second guessing and act accordingly when you see a trade to get in and manage a trade once you are in it and exit the trade when it is time to exit.

PYSCHOLOGICAL ASPECTS OF TRADING

There is more than money involved in trading. Your trading can have an effect on your life without you even knowing it. Trading affects your mood, trading affects your appetite, trading affects your relationships. When you are making money, the world is perfect and you have it in the palm of your hand. But when you lose money your stomach can tighten, your temper can shorten or worse.

As a trader you want to make money every day. Setting an easy attainable goal will help a trader's confidence. People start trading because they want to make money. Too often when new traders start out they want to make big money right away. They want to make a million dollars this year starting with an account of \$50k. That is not really an attainable goal. It is just not realistic. Start with a daily goal of \$250 or \$500. Once you are able to reach your daily goal you can always increase it and build on it from there. For example if the goal is 20 ticks, once 20 ticks is reached, you can pause and determine if you still want to continue trading for the day. On good trading days you can make 100 or 500 ticks. But if it was a struggle to make the 20 ticks you may want to stop and take a breather. If you are down 20 ticks it is a sign that things are not going right. You need to reduce your size, pay closer attention to what the market is telling you. If you just can't get into positive territory it may be time to stop trading for the day.

By having an easy attainable daily goal you can start to string together winning streaks. Psychologically speaking, once you are able to put together winning streak it will help you mentally when you think back on them. "I made money 8 days in a row. I made money 22 days in a row." It gives you the confidence when you have a losing day. It is like what recovering alcoholics go through in rehab. They try and get through the next hour without a drink, then the next day, then days become weeks, weeks become months. Winning days become weeks, weeks become months, months become years.

The market will still be here tomorrow so don't feel that you have to wrestle it to the ground all in one day. Just like with sports, the champion doesn't win the league by pounding the other team in just one match. It is a series of matches over a period of time by which the champion is decided.

Consistency is the key to success as a trader for most traders. Sure there are some traders out there that will have 9 out of 10 trades that are losers but the 10th trade covers all 9 losers and makes a lot of money. Most traders would be so emotionally drained suffering through 9 consecutive losses that by the time the 10th trade came along they might not see it all the way through and close it out early with only a small win. That takes discipline and understanding one's own trading ability.

Huge winning trades will come, but the problem is you do not know when they will come. You need to be prepared mentally as well as financially to take advantage of when they come instead.

It is important to understand your own trading personality. Every trader is different and it affects the profits and losses. Can you take big losses in return for big winners? Or are you willing to take a series of small losses and small winners? Are you comfortable trading on small time frames of 1 to 2 minutes or would you rather trade with a 60 minute or even daily charts? You need to find your comfort zone as a trader.

OVERTRADING AND GREED

Overtrading has been the downfall of many traders over the years. There are many reasons for overtrading, the main one is greed. Being greedy is easy. After a few profitable trades you start to think trading is easy and take borderline trades that don't exactly fit your criteria, but are close enough to meeting your trade requirements even though they don't really qualify but you take them anyway because you think you can make more money. Another example would be when you increase your order size even though your recent trades have been losers but you want to try and make back your losses by booking smaller gains or thinking that by adding more contracts you can cover back your losses quicker. A lot of traders will average down their losing trades with additional trades. The "I am right and the market is wrong" trade. You get angry at the market and take it personally. Never rationalize losing money with your need to make money.

It is easy to think you can get more money out of a trade when it is moving in your favour. But that is feeling is wishful thinking, it is not based on any factor. Wishful thinking in the market will not make you money on a consistent basis. When you are up 5 points in a trade and that is your price target, don't all of a sudden think you can squeeze out an extra point.

Boredom is also a cause for overtrading. Some people have a need for action. Don't trade for excitement. The market is not your casino. When you gamble and win, it might be because you had a gut feeling or were just plain lucky. If you start trading based on your gut feeling or relying on luck then you are not trading, you are gambling.

Basically you have taken your trading plan and thrown it out the window. Stick to your trading plan. Overtrading is one of the fastest ways to blow up an account.

SITTING OUT IS A TRADE

I have spent most of this book talking about getting into and out of trades. But there are a lot of times when you are not in a trade and that is a trade in itself. Knowing when not to trade is just as important as knowing when to trade. I am sure you have heard the phrase “trade with the trend.” Well what do you suppose you do when there is no trend? Sit on the side lines and wait for the market to show you it is trending.

It takes discipline, but if there is no reason to be in a trade, then you should not be in a trade.

There are going to be days when you can do nothing right in the market. These are the days when you can't get into a winning trade to save your life. When the market is acting unpredictably, by that I mean your entry setups are failing one after another, then you know the market is not acting as it normally does and you should sit out for a while. It could be due to lack of liquidity and the market can move faster and farther on small volume. It could be that a big position is being unwound and the player isn't so concerned about price – they just want out.

CONFLICTING SIGNS

The market will do what it wants to do. One thing traders cannot predict is what other traders will do. I don't mean finding a level where there may be some big stops are than can be run or where there may be size in the order book. What I mean is a trader has no idea if or when an institutional player may change their thinking about supply and demand or when a participant needs to do an arb trade or hedge a physical sale.

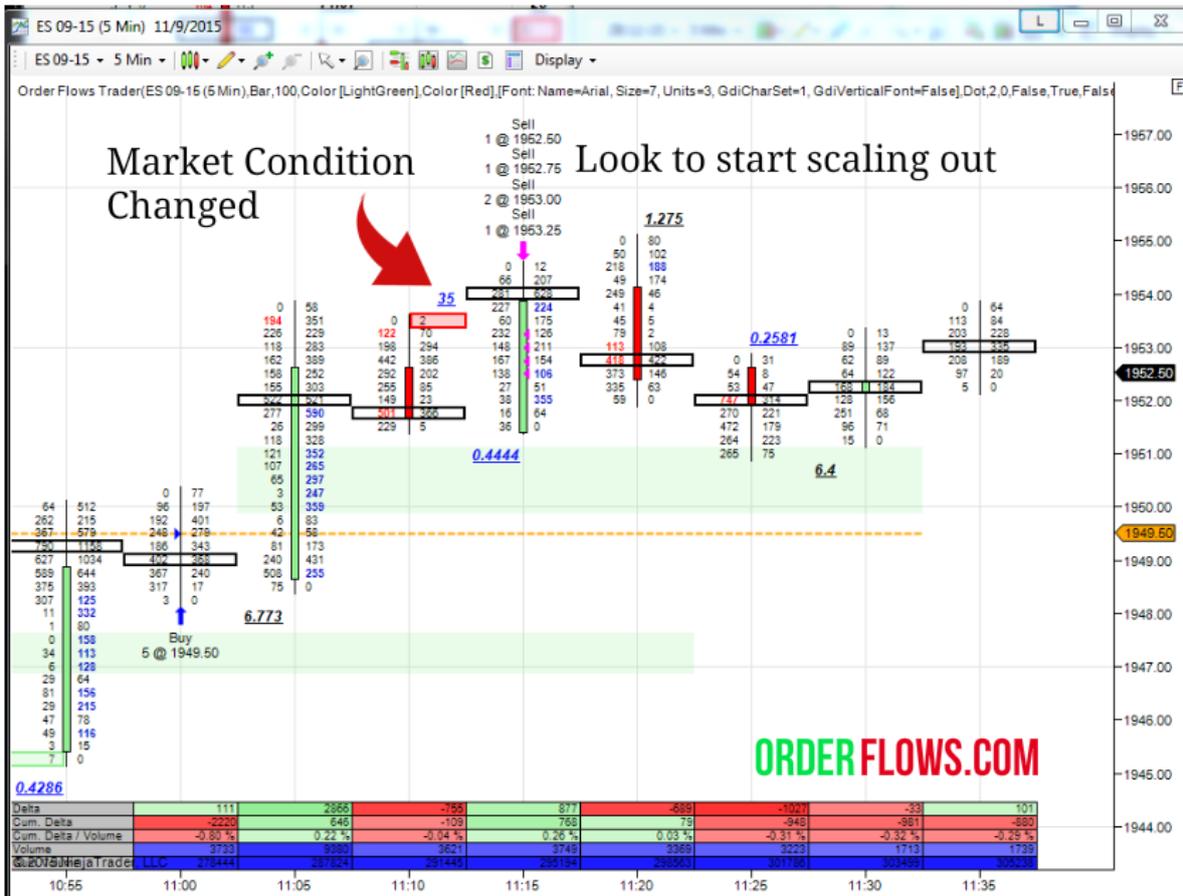
When you starting thinking the market must do what you think it will do based on your analysis you will become doomed when the market starts to move against you. For example, say you got short because you read the market as being heavily sold based on your analysis. The market drops a few ticks, then the market shows aggressive buying coming in during the same bar. Your original read says the market will go down, but it is not really dropping and you ignore the signals that are showing the market is poised for a rally because you are already in a position. This is a conflicting signal.

If you weren't in a trade and were looking at a chart the next day you would probably say to yourself that you would have passed on both trades since they were conflicting or you would think to yourself that it is obvious that you would have taken the trade that worked. But since you find yourself in the trade you might miss or dismiss the change in the market and hope the market continues in the direction of your original trade.

It is OK to be wrong about the market. But it is not OK to be wrong about the market direction and ignore the signs that it is time to get out of the position. Your read of the market can be wrong just as easily as it can be right. You have to accept that you will be wrong.

Being a successful trader is much more difficult than it appears. Experience is a long process of watching the markets and learning to recognize situations as they appear.

Here is a chart of what I mean by conflicting signs. You get into a position based on what the market is telling you but then you get a signal that the market conditions have changed. It can either be the setup is invalidated or another trade setup in the opposite direction.



In this example, we got long based on a series of small prints, but just 2 bars later before the market got to my take profit area a setup in the other direction appears. You have 3 choices. You can either start getting out of your position, wait for the market to either hit your profit target or you stop loss or flip your position. This is where reading the market via the order flow is useful. In the above example, I chose to scale out rather than flip my position because the even through there was a sell set up, I felt there was support in the market with the stacked buying imbalances. So I didn't feel like the market was ready for a big sell off, I thought it will trade lower and range trade for a while.

COMMON CHARACTERISTICS OF A TRADING OPPORTUNITY

Trading opportunities arise when you can identify market developments as they are occurring. Any form of market analysis is only useful in as much as it is readable and reliable. Trading opportunities need to be easily recognizable and determine market direction. Order flow allows me to quickly see opportunities developing and keep an eye on them as they develop so as to be ready to trade them when they can be confirmed.

I have a basic set of criteria, so to speak, that I adhere to when looking over the markets before getting into a trade on either the buy side or the sell side. If these basic criteria can't be met then chances are the trade opportunity is not there.

What I look for in BUYS

- A closed footprint with positive delta.
- A closed footprint where the candlestick was green (up).
- Evidence within the bar that buyers have aggressively bought the seller's offers at subsequently higher prices.
- Significantly higher volume traded on the offer than the bid.

What I look for in SELLS

- A closed footprint with negative delta.
- A closed footprint where the candlestick was red (down)
- Evidence within the bar that sellers have aggressively sold into the buyer's bid at subsequently lower prices.
- Significantly higher volume traded on the bid than the offer.

The best buy signals are when a market starts to move up and showing buying imbalances while the market is breaking out of the accumulation stages as noted by signs of absorption. The shift from adequate supply to stronger demand is happening in the market place and trends can start.

The best sell signals are when a market starts to move down out of an area of absorption and showing selling imbalances. Sellers are

overwhelming the buyers with excess supply. When a market starts to drop due to excess supply it can drop very fast.

Not every trading opportunity is going to look exactly alike. The volume numbers will vary, the aggressive participant's position in a bar will vary, the location of the COT will vary. What will remain the same is the concept behind the setup.

Being a successful trader is much more difficult than it appears. Experience is a long process of watching the markets and learning to recognize situations as they appear.

PUTTING IT ALL TOGETHER

I have explained a lot in this book and shown many different examples.

What I am going to show you is how I put it all together to get make a trading decision. There are many different styles of trading the futures markets and no one style is right or wrong. What I am showing you is how I trade. What I have to say may either make total sense to you and be similar to how you already trade or I may make no sense to you whatsoever and you will think I am a crackpot. I am not saying my way is the best way for you to trade, but it just happens to be what works best for me.

These trade setups have a very high probability of success. They may not occur every day but they happen enough to put up some impressive profits. I use these set up in all major futures markets: ES, YM, ZN, 6E ZC and many more.

A major problem that many traders have is too many indicators that their screen is so cluttered that it is difficult to make a decision because one indicator says buy and another one says sell. I like to keep my screen clean so it is easy to see trade setups as they are happening.

Traders often get caught up using complex technical indicators that are based on price to try and predict the market movements. What they tend to forget is that the main driver of price direction comes down to simple supply and demand. If we see demand for a product, service, commodity, or currency accelerate, we will begin to see increasing prices for that product. Economists call it “The LAW of Demand”, not the “theory of demand”, or the “idea of demand”. The Law of Demand and the Law of Supply, like the Law of Gravity is a proven concept.

I will show you how supply and demand affects price and how to use order flow to predict market moves that would otherwise not be noticed with traditional charting methods.

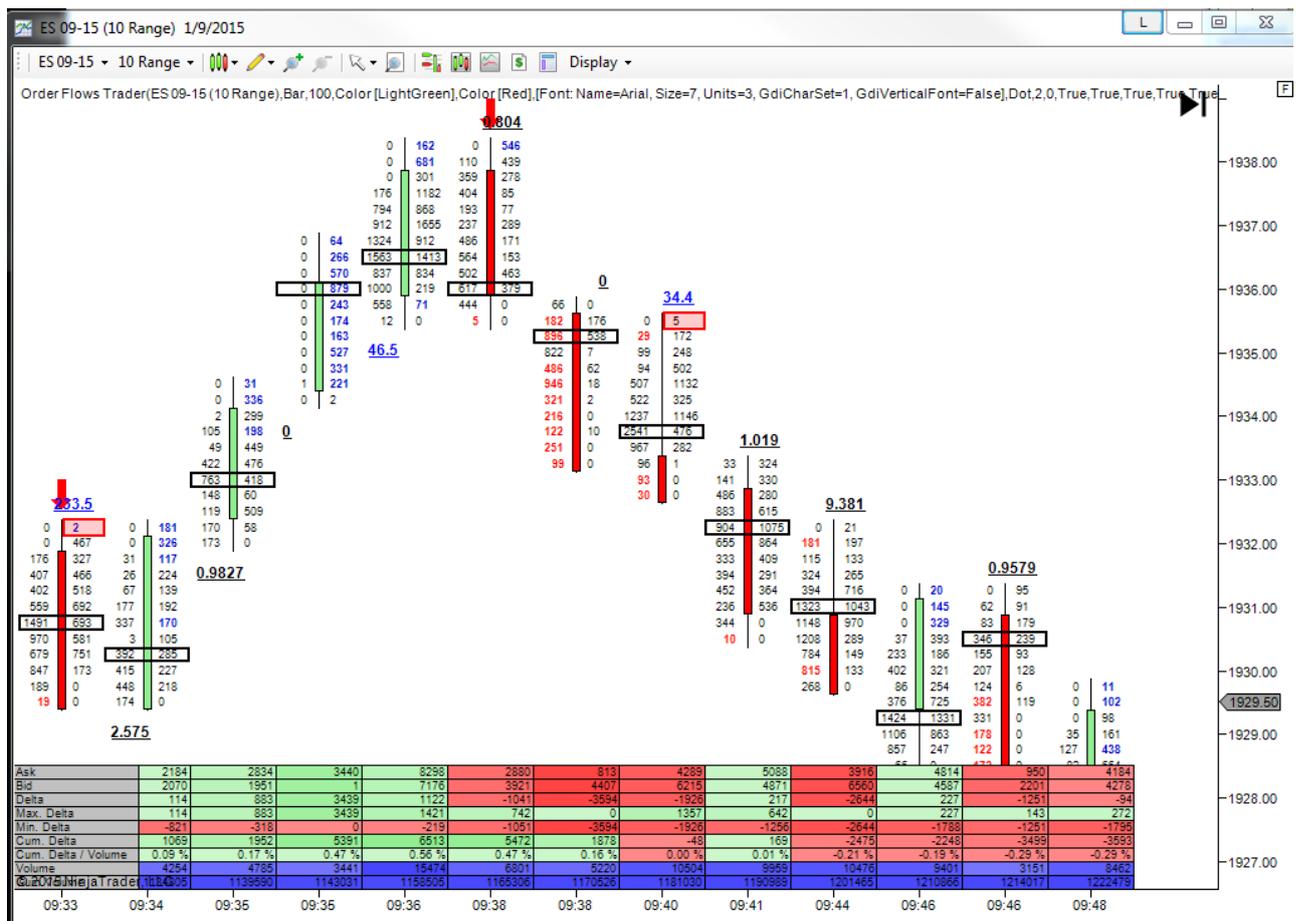
The main focus of this book is to show you how I identify hidden trading opportunities that have low risk entries. The techniques here are the simplest and most direct that can easily be seen with order flow footprint charts.

This set up can be traded on just about ANY futures market with decent volume and ANY intraday time frame or range or volume chart.

Take a look at the bar chart below. Can you tell by looking at the candlesticks that the market was ready to turn around? It is easy to look back at a chart well after the fact and say “oh yeah, the market looked like it was ready to turn around.” But why would you say that? Is there any evidence other than the bar closed lower than where it opened? It couldn't even close lower than the previous low.



Now look at the Orderflows chart:



Do you see that big red number at the top? That is a buying imbalance greater than 400%. 546 traded on the offer at 1938.25, in the previous bar there were 182 lots that traded at the same price and 681 traded just below at 1938. These are traders who got into the move at the very end. These could be traders who tried to push the market higher to continue its upward move. It doesn't really matter what the people were thinking that bought that high. Someone has to buy the high.

What is important is that we have an imbalance at a recent high. It doesn't need to be the high of the day, it can be the high of a swing move. You have all these people that bought at the high and the market couldn't go any higher.

So how do we trade this?

1. You see a selling imbalance at the top on a high. I like the imbalance to occur at the high of the bar rather than the second or third price from the high like in the previous bar.

2. The bar closed lower than the open so we see that there was some selling pressure to cause the market to drop. If there are some selling imbalances in the bar, even better, but it is not necessarily needed.
3. Wait for confirmation of the high by waiting for the bar to close. There will be times when it looks like you have a set up and want to get in early but the bar hasn't closed yet and the market reverses and the setup is erased and you are in a position you shouldn't be in.
4. Choose your entry. There are many ways you can enter. You can just enter at the market once the next bar has begun. You can try and scale in the length of the setup bar, but you run the risk of missing the trade when it just shoots straight up. The way I trade it is I like to get involved no matter what, so I will sell 2 contracts at the market then I will scale the rest in between the low and high of the setup bar in case there is a retracement. Sometimes there are retracements and sometimes not. I like to try to get in also during a retracement by working a limit order around the middle of the bar.
5. Place your stop. I like to place my stop 2 ticks above the selling imbalance price in the setup bar just to give it some room. This is more generous than I really should. You can place your stop at the imbalance price or a tick below it since that would invalidate the set up. Once in while price does go back up to retest the high before going lower. In this example, I would have placed my stop at 1938.25.
6. Take profit level. You can be either mechanical or discretionary in deciding where to get out. In the ES I will put in a take profit level 5 points away. Once I get into a position I monitor it and see if the conditions change. If they do I just get out. For example I may get a setup in the opposite direction.

As you will see there will be some trades that seem so obvious they are "slam dunks." These are the trades with high probability, low risk and high reward.

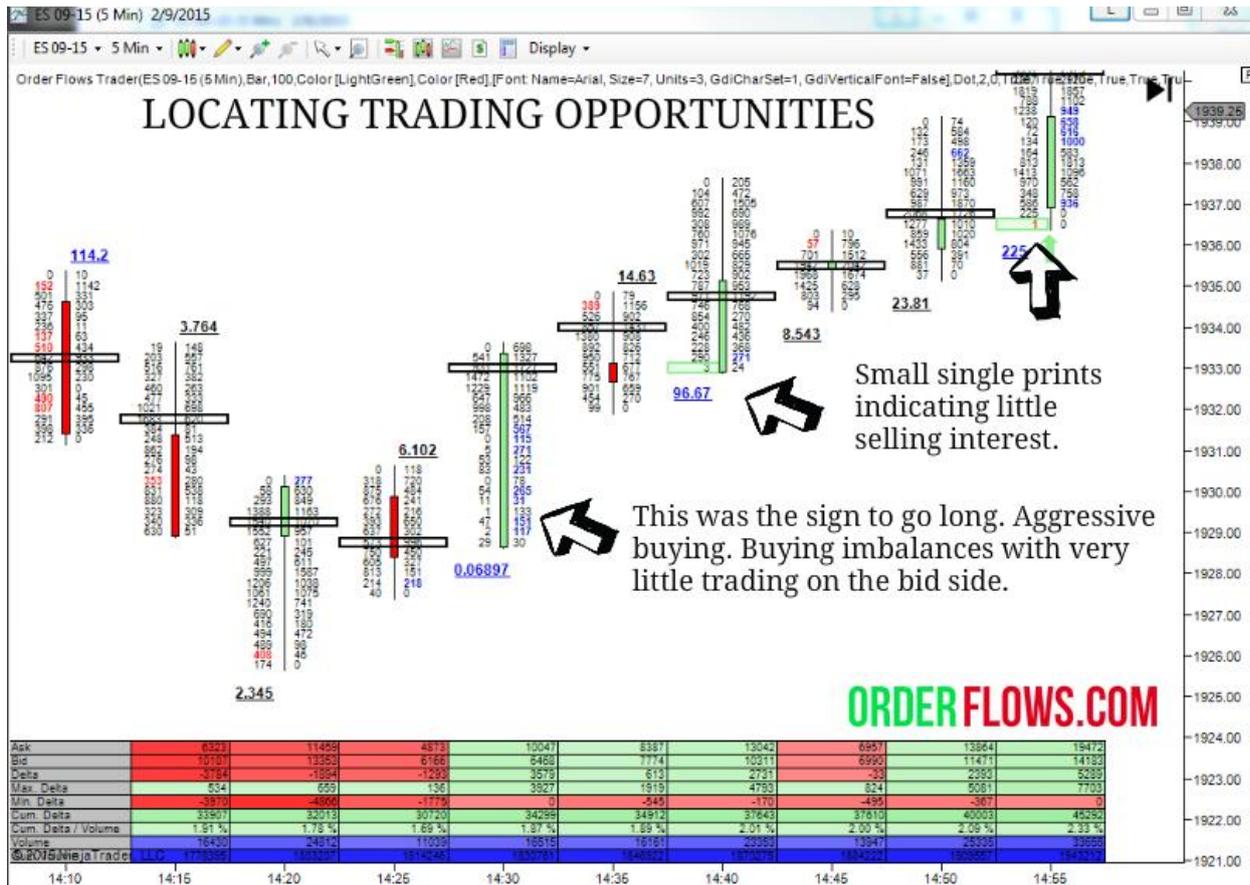
I like setups that generate signals with winners that are at least twice the size of losses and a minimum 50% winning average, however, I have that 60%+ winning averages are optimum and realistic.

Once your entry setups have been defined, don't fiddle around with them trying to make them marginally better. What you should do is focus your attention and work on making your exits better.

You can pick tops and bottoms and have a high success rate if you are quick to realize when you are wrong. You won't be getting in at the exact low, but pretty darn close, usually in the next bar.

Not all trading opportunities occur near the highs and lows. Often times a move can happen when the market is range trading. Trends come out from periods of consolidation.





This is a trade that is you will only find with order flow analysis. It won't show up on a traditional bar chart. You need to look inside of the actual bar to see what is trading to fully understand the market. The battle between buyers and sellers is constantly going on. When one side starts to take over that is the side you want to be on.



What I like about these trade setups is that they provide low risk entries to the market because you know exactly where you want to get out if the trade breaks down. Not adhering to a defined money management stop is the most common cause of failure among traders.

The great set-ups like these are not something that just happens once in a while, but almost every day. Some days there might be only one or two trading opportunities. Some days there might be none.

As I mentioned in the beginning, order flow footprint trading is not for everyone. But I think it is a useful skill and tool for traders to learn and understand.

The downside of order flow trading is that it can be a labour intensive style of trading. Depending on your time frame you may end up spending a good deal of your time paying attention to the order flow as it occurs.

You should try to avoid the marginal trades and concentrate on the good set-ups.

Each day in the market is different. Some days the market will have periods of choppy trading followed by slightly larger trends. On other days the market will trade in one direction most of the day. While some days will be more challenging than others, you should still have profitable days using these set-ups.

So there you have it –simple, easy to understand setups.

A key point to keep in mind is that order flow trading is not an exact science. You still need to trade in the direction of the market and be flexible.

At first sight, the details of trading off of order flow and foot print charts may seem laborious. Over time, as you get more comfortable with what to look for in the order flow you will find yourself making more high probability trades.

Successful traders are patient and disciplined. Successful trading begins in your mind. Develop patience and discipline if you want to be successful. You might ask me why does patience play such an important role in trading? In order to answer that question, you should look at and compare the different ways that institutional traders and retail traders do their trading. Generally speaking, retail have shorter time frames to hold losing positions because they tend to be leveraged more than institutional traders and just don't have the financial resources to take too much heat when a position goes against them.

Remember the best traders always trade when they feel they have an edge to put the odds in their favour and they trade for one reason only and that is to make money. They don't trade simply because the market is open and they have a need for action. They have discipline.

Just wait for the right setup whenever it happens and take what the market gives you. After all that is the nature of trading – taking what the market gives you.

Before you get too excited: These setups, while impressive, ARE NOT the Holy Grail traders are always looking for. The nice thing about order flow set ups is that they have their own built in stop loss i.e. your stop loss is basically the high or low of the set up bar.

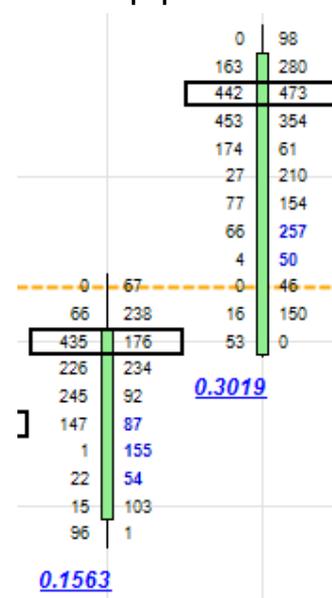
HOW I USE ORDERFLOWS SOFTWARE TO FIND TRADES

The following are some examples of trades I have taken. All of them incorporated Orderflows techniques. Since I trade futures, the examples are futures oriented. Also, my basis is short term so the examples will be based off of intra-day charts. I believe each person has their own unique trading style. How you trade is different than how I trade. You probably don't have the same thought process as I do.

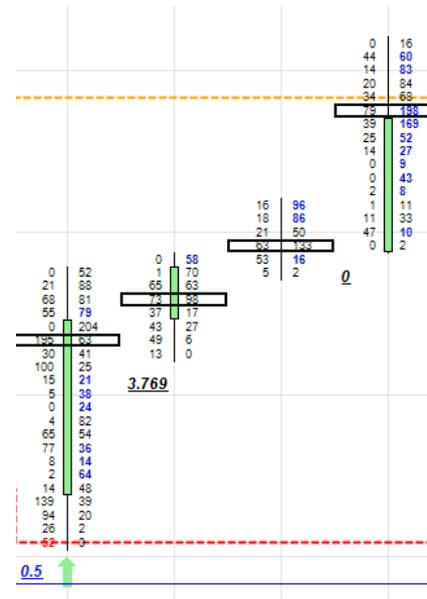
The purpose of this chapter is not to give you a firm set of rules for taking trades. It is to show you how to incorporate order flow into your trading. Hopefully by seeing the examples here, you will have a better understanding of using order flow in your trading.

There are several types of setups that I am always on the lookout for:

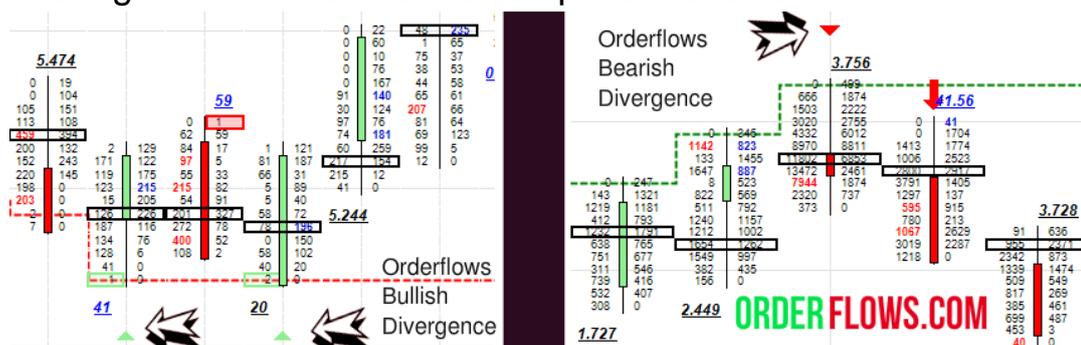
1. A small print / single print high or low that occurs at a low or a high. I also look for a small print / print that occurs just after a high or low. For buys the print should occur on the bottom of a bar that closed higher. For sells it should occur at the top of a bar that closed lower. The single print should be between 1 and 9. The ratio for a small print and single print should be greater than 28 at the minimum. I am not interested in a single print of say 2 lots when the next number is 5 lots. I want the small print to be because there was just no more buying or selling interest, not because of low volume.
2. A market that is bottom heavy or top heavy. This is a variation of a large print. This occurs when the extreme bottom or top print is much greater than the next print. For example 96 and 15, 53 and 16. The reason I like to look for these big prints on the lows or highs of the bar is it indicates to me that there are either a strong buyer or seller that came into the market with a big bid or offer. This caused the other participants to scramble and try and jump ahead of the larger orders. I have the ratio set to 0.699 and below, meaning the extreme print is 69.9% greater than the next print.



3. Trapped selling imbalances at highs or trapped buying imbalances at lows. This marked with a green arrow when it is a trapped buying imbalance and a red arrow if it is a trapped selling imbalance. If there is a confluence with another setup, for example a small or single print or a top or bottom heavy print then that gives me a little more incentive to take the trade setup. I prefer to see trapped buyers on or near the low and trapped sellers on or near the high.

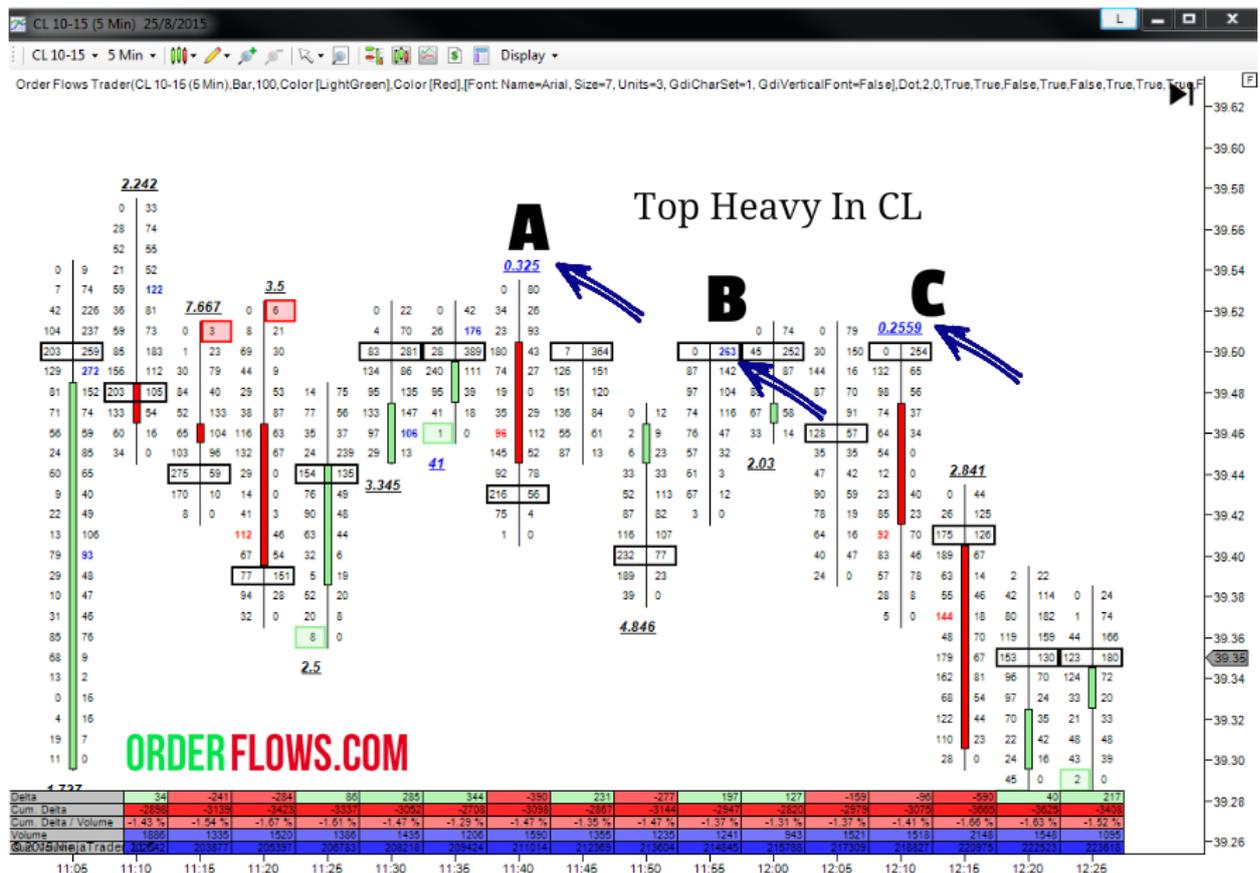


4. Orderflows divergence. The Orderflows divergence is a little different than the other divergence indicators out there. It is marked on the screen with a green triangle for a bullish divergence setup and a red arrow for a bearish divergence setup. What makes the Orderflows divergence setup different is that we require an extra confirmation that the market has turned. For a bullish divergence setup we require the market to make or equal a new low, have positive delta and the bar to close higher relative to where it opened. For a bearish divergence setup we require the market to make or equal a new high, have negative delta and the bar to close lower relative to its open. Most order flow divergence signals only require a new or equal high and negative delta or a new or equal low and positive delta. By qualifying the bar close relative to its open we have eliminated a lot of false signals which can occur when there is absorption, a lot of two way trade going on at a high or low. We need to see price move as well.



So let's now take a look at the setups as they occur so that you can better understand how to apply them in your trading. Setups are like snowflakes, no two are exactly the same although they may look similar.

This first chart I call being Top Heavy In CL. One of the indicators of Orderflows software is that it for a down candlestick it takes the top two numbers and divides them and for an up candlestick it takes the top two numbers and divides them then plots the ratio number below for a bar that closes lower and below for a bar that closes higher. I have the software set so that when the ratio is below 0.69 it will print the ratio in BLUE; meaning, for a down bar, that the second number is much less than the top number.



In this case, at point A, when you divide 80 into 26 you get 0.325. This is important because it indicates there was more volume traded on the offer at the high than the level just below it. In theory it should be less, as you get higher in price the buying should be less before prices decline. The indication here is that there is a seller willing to step in at this level with supply.

At point B, we also see a bar where the top number is greater than the number beneath it. This bar is a doji in Japanese candlestick terms and is a sign of market indecision. The Orderflows software does not mark ratios on doji candlesticks because I have found that the market could really go either way.

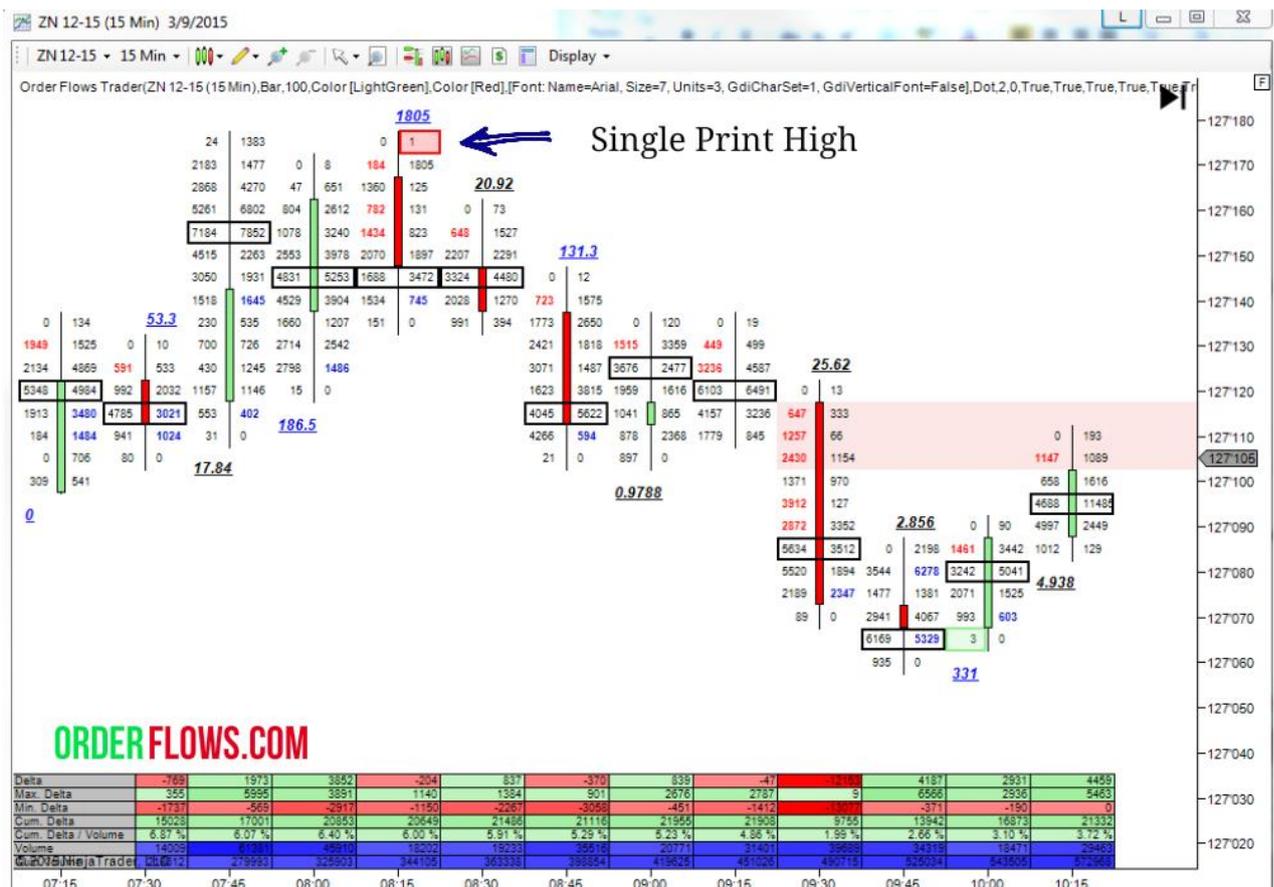
At point C, there is yet another ratio. This time it is 0.2559. Which indicates to me that the bar has a top number much greater than the number just below it. This indicates to me that there is ample supply in the market and that every time the market tries to go higher someone comes in and offers their supply for sale.

The market sold off from the 39.45 level to the 38.90 level.

I have the ratio set to 0.699 or less. Ideally I like to see a number below 0.50 which would indicate that the extreme number is a minimum twice as big as the next number. However, it is not set in stone. I can't say that it only works if it is 0.50 or below. I execute my discretion for ratios between 0.699 and 0.50 because I also take into account the volume that actually trades. You could have a ratio of 0.20 which would look good but the volumes involved might only be 1 lot and 5 lots which is hardly convincing. This is why I don't create a bot to trade this. I like to see the ebb and flow of the market. I am the trader, not the computer.

The next chart highlights the Single Print High set up. It occurs when there is a single print in volume (volume of 9 or less) at a high or low.

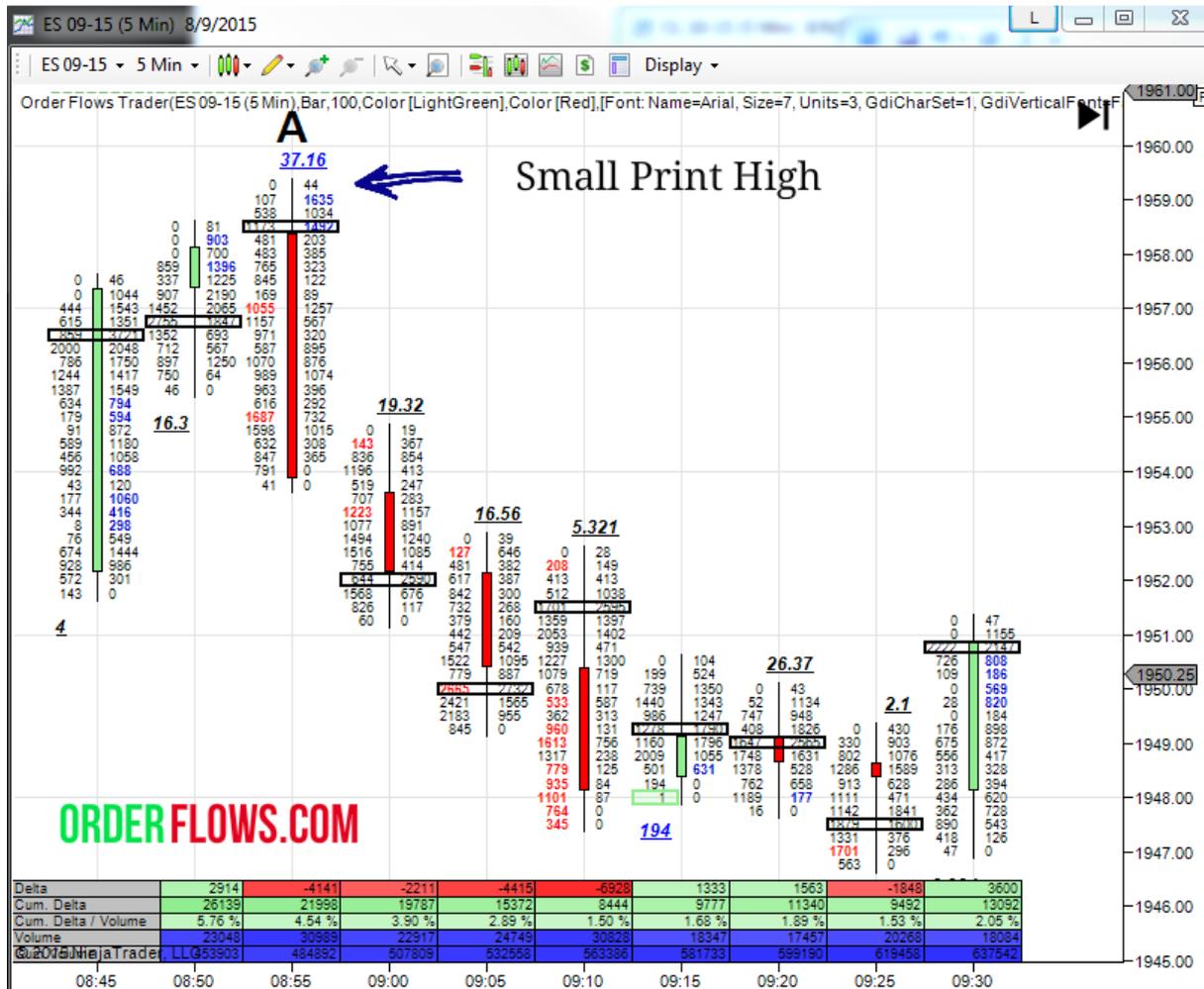
The Orderflows software draws a red box if there is a single print in a bar that closes down or a green box if the bar closes up. Also the ratio is printed above or below the bar if it is greater than 28. Ideally the bigger the number the more powerful it signal.



This single print is off the Richter scale. It measures 1805. In the interest rate futures you do tend to get big ratio numbers like that. When I see big ratios like that I look to get short as soon as the bar closed. This was on a 15 minute chart. The market could not even print more than the 1 lot when it traded that level. It could have been some algo buying the 1 lot to see if there are any stops there. Earlier it traded there for 1383 lots, but on the retest only one person was interested in paying that high.

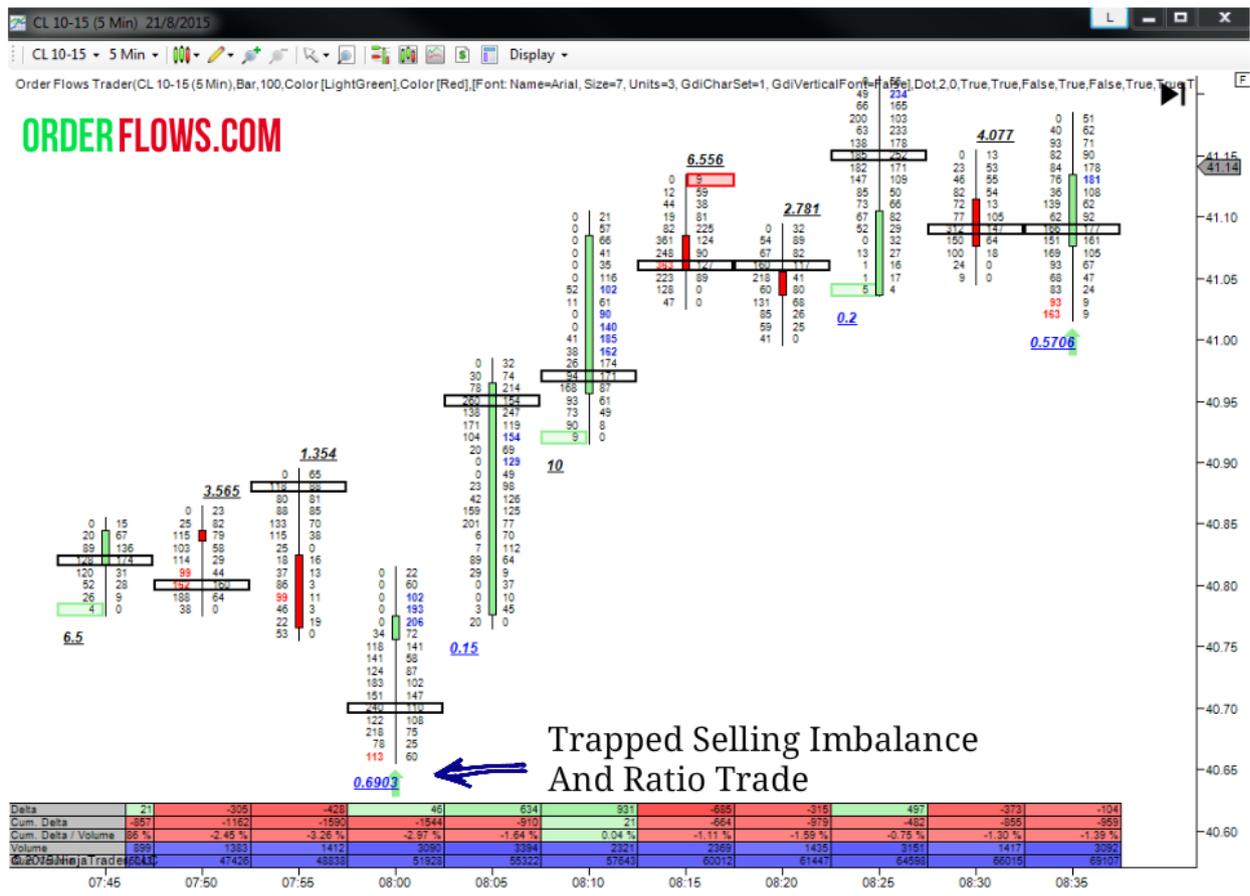
This next chart is a variation on the Single Print High. I call it the Small Print High. It occurs when the ratio between the top and second to top number is greater than 28. Sometimes the market just pushes through a level but can't go any higher because all the buyers are exhausted. The

only traders who will see this trade are those who are trading order flow. The rest of the world won't notice it, they will just see a big down bar.



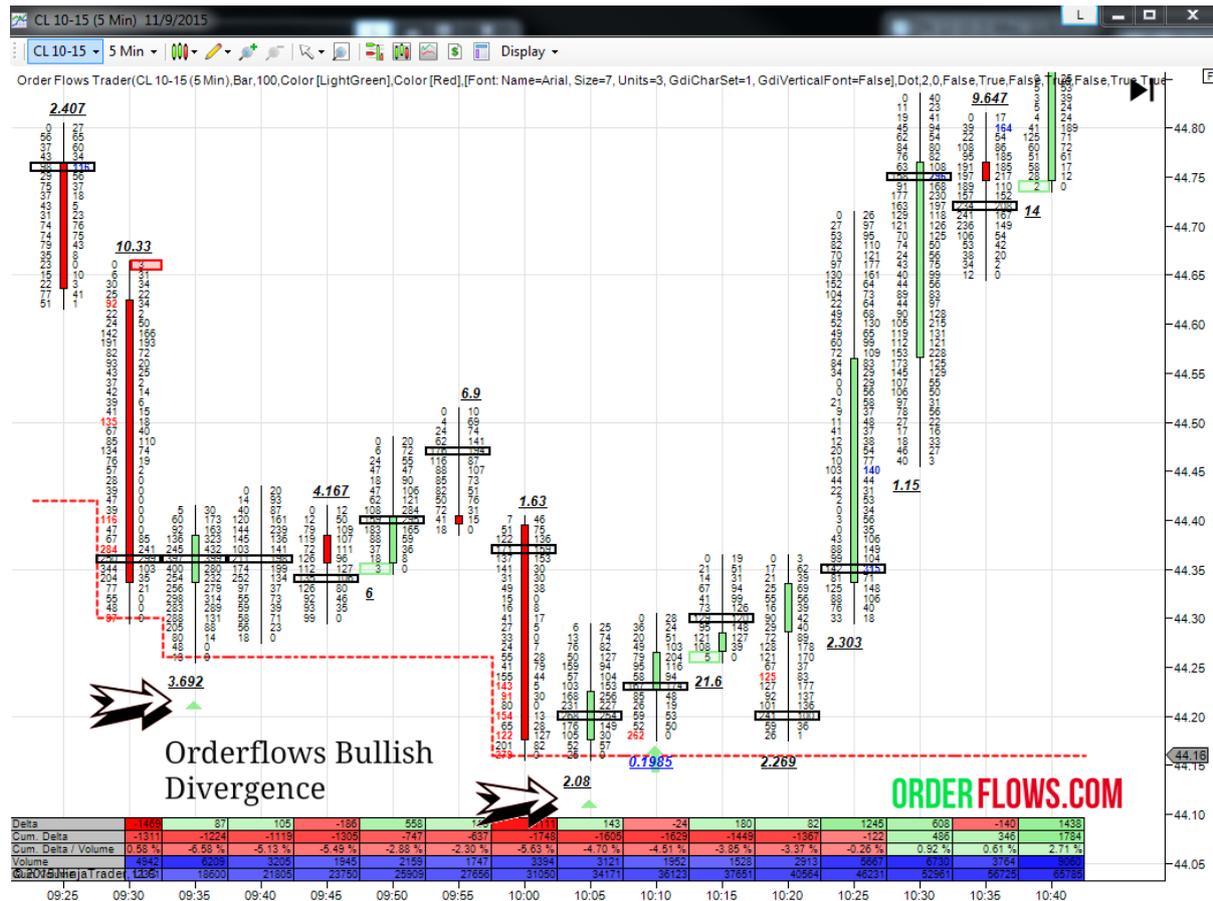
There is also something else in this chart that is quite powerful to trade with. When you look at bar A, you see two buying imbalances in the candlestick wick and selling imbalances in the body. That tells me the sentiment has changed in the market as the bar was forming. The bar opened up with some strong aggressive buying, but the market just couldn't carry through and strong aggressive selling came in. So, with the small print high and the imbalances this is a strong indication for the market to sell off.

In the next chart we have two setups occurring at the same time - confluence. There is a Trapped Selling Imbalance and a ratio trade.



I like it when there are two setups in a bar. It gives me more confidence in taking the trade, although it is no guarantee that the trade will work. Ok, so here we have a selling imbalance on a low of a bar where the bar closed higher and there are some buying imbalances in the body, just barely, but still near the opposite end of the bar. Also the ratio between the bottom number of 113 and the second number of 78 is 0.6903 just barely under the ratio of 0.699. This is why I like to include between 0.699 and 0.50, so I can eyeball it and make my own decision to take the trade or not. 113 lots at the low in the Crude Oil is a decent number. I really think that as a trader you have to know how to read the signals. Just because a set up occurs doesn't mean you have to take it, if the volume doesn't look right then you can pass.

Let's now take a look at an Orderflows divergence trade. The problem with divergence that I had in the past was when the market was trending you could get a lot of divergences appearing on the way up when the market constantly is making new highs throughout the trading day or new lows. After seeing the problem with a trending market and divergence I came to the conclusion that price also has to start moving away from the high or low for it to be a valid divergence.



The beauty of this setup is that the stop placement is just behind the high or the low. As you can see you can catch some nice moves. But remember that you can also get chopped up in a one way street type of trending market.

Orderflows divergence is a powerful setup because it occurs at the day's low or high. If institutions are bullish on the market, they will support the market which entails them to buy at or near the low. If institutions are bearish, they will need to sell at or near the high so the market doesn't go higher.

WRAP UP

No matter what kind of trader you are, there are certain basics common to the markets which will ultimately determine whether you make money or lose money. There are books, videos, websites, training courses from many different sources which promise you the easy road to trading success. I will tell you right now that there is no easy mechanical way to trade and win consistently. The markets are always changing. Factors that move the markets are always changing. It is not really that tough, it just takes some time and patience and practice on your part to become a profitable trader.

A study of order flow reveals patterns that occur again and again. The overall trend will be either up or down regardless of the number of changes in direction within the period. Once a trend has been determined, ride along with it. If there is a signal that the trend is starting to head the other way, jump off and prepare yourself for the next turn. Trying to go against the trend is like trying to swim up river against the flow of water.

Once you start to learn to read what the market is telling you, it is then that you can see patterns emerge, if there is a pattern. Most of the time there is no discernible pattern. The market is facilitating trade just as it is supposed to.

Nothing is certain in trading. Fundamentals and technicals can change at any time during a trade. There are a multitude of uncertain factors that can make short term price swing occurs. Option hedging, delta positioning, portfolio adjustments, risk on-risk off trades, a FED official speaking, etc. All these things and more will affect your position. With order flow analysis you can see what is developing in real time and react to it as it is happening.

There is a time to buy and a time to sell. No set formula is infallible. But knowing how to interpret order flow is invaluable in minimizing your losses and making your trades more profitable.

Practice, practice, practice. Get screen time. Pour over charts and look for instances where the market turned and try and understand what market forces were present that caused the move. Great athletes spend hours and hours a day practicing. Guys like David Beckham or

Cristiano Ronaldo take 100's of practice shots from all over the field so during game time when they are in that situation they know exactly how to take that shot. They take the pressure of themselves since they know what to do.

Once you finish reading this book, you will likely feel confident that you can successfully trade using order flow. In all likelihood you will because you will understand order flow better. But that doesn't mean you should jump right in and start throwing around size trades. You do need some practice first. Being able to read the charts in real time and being able to make trading decisions on entering or exiting a trade requires practice until it become almost second nature or in other words reactionary.

The actual steps of entering a trade into a trading system may not seem all that important to your trading, but it is easy to make a mistake by clicking on the wrong price or quantity or even mix up a buy order with a sell order. Get practice entering orders yourself. It will serve you well in the future. Mistakes cost money. If you enter into a trade in error, just get out. Don't try to finesse the error or scratch it. It can easily go from bad to worse and very quickly. Just chalk it up to experience and don't make the same mistake again.

Really the only way to develop this intuition is by extensive practicing. After you have watched your real-time charts long enough and have witnessed many different types of set-ups as they happen, you will begin to understand what the market is doing based on the order flow. This book will give you the knowledge about order flow trading, but you need to develop the experience of using this knowledge through actual trades.

Remember there are 2 immutable laws in the market. As demand goes up, prices go up. As supply increases, prices go down.

Congratulations on making it to the end of this book. Hopefully this isn't "the end" for you, but rather just the beginning of trading with order flow. Now is the time for you to start applying what you have learned. Watch the charts, do some trades and practice. Simply reading this book won't transform you into a successful trader.

Even though many of you will be using this book as a reference guide when it comes to order flow trading, at least I hope you will, it doesn't

mean that everyone will use order flow in the same way as I do. Some of you may incorporate only parts of what I have shown you here. Every trader has different idiosyncrasies and our risk tolerances differ.

Some people are going to read this book and flat out tell me I am just wrong in my analysis of order flow or that order flow charts are nice but not really that important. I am fine with that. I don't need everyone to agree with my way of trading the markets after all that is what gives me an edge in the market.

Happy Trading.

Mike

