

MAXIMUM TRADING GAINS WITH

ANCHORED VWAP



The Perfect Combination
of Price, Time & Volume

By Brian Shannon, CMT

PRAISE

Over the years, Brian has developed strategies to effectively utilize the Anchored VWAP indicator into his trading strategies. This book clearly lays out how anyone can combine price, time, and volume to filter out the market noise. Once only used by institutional traders, the Anchored VWAP is now available to all investors on more platforms and Brian Shannon is directly responsible for bringing it to the masses.

Thomas Thornton, Founder, Hedge Fund Telemetry LLC @TommyThornton

Brian Shannon cemented himself as one of the greatest technicians of all time with his first book, Technical Analysis using Multiple Timeframes. Now, with new technology, tools and data, he's taking an already legendary career to another level. In his new book, Maximum Trading Gains with the Anchored VWAP, every trader and investor can learn how to use the Anchored VWAP to both profit and manage risk. Brian expertly breaks down these concepts, as well as the simple tools and strategies every market participant needs to understand, regardless of experience or portfolio size. Be a better investor. Read this book.

JC Pares, CMT President & Founder, allstarcharts.com @allstarcharts

Maximum Trading Gains with the Anchored VWAP provides a simple explanation on how to identify price levels being targeted by large institutional money. Brian walks you through the logic behind his theory and how to implement the strategy using Anchored VWAP. This book has given me a new perspective when looking at stock charts.

Chris Worden, President, TC2000 Software Company

If you want to identify the next great stock, then understanding institutional accumulation is critical. I remember the first time Brian showed me how he used Anchored VWAP to track the institutional footprints. It was almost as if he used a magnifying glass on the trading activity. This book will give you an edge and teach you how the markets really work.

Irusha Peiris, CMT, Portfolio Manager, O'Neil Global Advisors Inc. @irusha

I have known Brian Shannon for years and have been impressed with his clear-headed, structured approach to technical analysis. In his latest book he takes trader education to a new level, elaborating how to make use of Anchored VWAP (AVWAP) and explaining in detail how and why it is a valuable trading tool. Each chapter itself is anchored by specific, practical objectives and charts and examples nicely illustrate the trading ideas. Particularly insightful is a description of how institutions execute large orders in the stock market and an explanation of how AVWAP can help traders take advantage of their actions. Also quite helpful is an account of how AVWAP can help traders exploit breakout patterns and trends. This is a clearly written text that can benefit developing and experienced traders alike.

Brett N. Steenbarger, Ph.D. Author of *The Daily Trading Coach* @steenbab

Brian Shannon takes an esoteric institutional trading tool called volume-weighted average price (VWAP) and brings it current for retail investors using an anchoring technique (AVWAP). He thoroughly breaks down the market mechanics of how large institutions use VWAP and why it's important. Then, Shannon presents an expanded set of use cases for the retail trader that builds on the anchoring work of Paul Levine, PhD. The entire book is written in plain English and rooted in a common sense approach that pervades Shannon's cannon of trading tutelage.

Jared Blikre, Yahoo Finance Global Markets Reporter @SPYJared

Every now and then, a trader develops a unique analysis for a series of trades well outside of other approaches. The analysis evolves to create a strategy for approaching the markets differently. The AVWAP maps previously unknown areas of support or resistance for stock prices to trade against. In an industry with so many varied approaches to the market, Brian's work continues to deliver a logical methodology to establish trade entry management rules. With clear examples, this book will help you refine entries and exits for profitable portfolio management.

Greg Schnell, CMT, MFTA, OspreyStrategic.org @Schnellinvestor

Within the broad discipline of technical analysis, there are many narrower topics where investors and traders can focus to try to find an edge. Many of those topics have a "go-to" expert who becomes a "must-read" on the subject. Steve Nison for Japanese Candlesticks, Jeremy du Plessis for Point & Figure, John Murphy for Intermarket Analysis, and Perry Kaufman for Trading Systems. Brian Shannon has become that person for Anchored VWAP with his masterful approach that can be used by beginners and professionally alike.

Dan Russo, CMT, Portfolio Manager @DanRusso_CMT

Brian is one of the best in the business at technical analysis. The way he simplifies concepts and explains them is truly remarkable. Traders of all levels will appreciate the ideas presented in this book and can apply them to their trading immediately. This book is a MUST have in every trader's library.

Joe Fahmy, joefahmy.com @jfahmy

There's nothing average about Brian's approach to volume weighted average price (VWAP). He is the go-to authority if you're interested in an actionable, clearcut, step-by-step approach to trading with the VWAP indicator. But what I like specifically about Brian's approach to trading is that it mirrors his personality: he's unassuming, down to earth, logical, and deliberate in his actions. This book delivers a no-frills, no-fluff, real-world approach to trading today's constantly evolving and increasingly complex financial markets that are largely driven by automated institutional order flow. You won't find any get-rich-quick pipe dream indicators here, just a real-world approach to trading today's complex markets from a real trader.

Todd Gordon, Founder, TradingAnalysis.com and New Age Wealth Advisors, LLC

In my 25-year career as a Floor Trader and Electronic Trader at CME Group, Brian's teachings on how to use an AVWAP has been the most important tool I've added to my strategy. This book has once again opened my eyes to ways to use AVWAP that I had not thought of and will be adding some of these new ways to my strategy.

Anthony Crudele, Trader and Host of Futures Radio Podcast @AnthonyCrudele

I was at the trading conference in San Diego when Brian revealed his latest contribution to the trading community—the Anchored VWAP. I still remember the scene of a few veteran traders hustling over to huddle with Brian after his presentation to learn more. It is an indicator of true trading wisdom. Since this conference, we have taught our traders to use AVWAP because it works. In fact, Brian has visited our prop firm to teach our traders how to best use AVWAP. We use it daily. For anyone using technical analysis to make trading decisions, this is an essential trading indicator to build effective trading strategies.

Mike Bellafiore, Co-Founder, SMB Capital @MikeBellafiore

Brian is a remarkable trader, who innately understands the value of weighting price action over emotion. But his real talent lies in his ability to explain technical concepts so that they are not only relatable, but actionable. His work here on Anchored VWAP, and the potential strategies for its use, will change the way you view markets—and inspire you to become a more profitable trader.

Brian Lund, Publisher, *Lund Loop* newsletter thelundloop.com @bclund

We all know Brian is the godfather of the VWAP, so considering that VWAPs are a major component of my daily charting and technical analysis, I was excited to read his new book and it didn't disappoint. It's a must-read for every trader and investor.

Jonah Lupton, Founder, Lupton Capital @JonahLupton

Brian Shannon empowers readers with the tools to take price and volume data, and draw their own market narratives. Alongside the math, Brian thoughtfully discusses who the market players are and what motivates them to buy and sell when they do. It's a must-read, not just for traders and chartists, but for anyone wanting to understand what makes prices move.

Sam Ro, CFA, Founder, TKer.co @SamRo

I'll never forget the day I first was introduced to Anchored VWAP. I was at an investing conference, in the audience, watching Brian as he spoke about AVWAP on stage. Most of the audience (me included) were drooling at the concept. I liked it so much that I later asked Brian for his blessing to deploy a version of it in TrendSpider. It is legitimately a game changing tool, and has since become one of the only indicators I consistently use because it helps me make better trading decisions. If you trade or invest, you should definitely read this book - it will help you understand price, volume and time, and give you a new tool that will help you become a better trader.

Dan Ushman, Founder, TrendSpider @danushman

Brian Shannon has done it again. In his latest opus Maximum Trading Gains with the Anchored VWAP, Shannon turns complicated technical analysis indicators into easy-to-use tools for new traders and seasoned vets. With plain language, loads of examples and clear charts, Brian shows you how Anchored Volume Weighted Average Price gets you better trade entries and exits.

Jeffrey Hirsch, Editor in Chief, Stock Trader's Almanac @AlmanacTrader

As a price and volume trader of growth stocks, Anchored VWAP has added more value to my trading in recent years than any other concept. AVWAP shows you the price levels where decisions need to be made. It is the fulcrum in price where we discover who is really in charge, the buyers or the sellers. The concepts and strategies Brian teaches are simple to understand and easy to apply. This book and AVWAP should be a staple in every trader's library and methodology. It is that powerful.

Tom Canfield, CEO BeDumbFollowPrice.com, @Canny4

I've known Brian for more than a decade and there is no one I know who is better at applying market technicals to continually be in a position to succeed. His ability to quickly change his opinion when he is wrong is something that very few people have and helps him stand out. Dare I call it his superpower? His latest work in Maximum Trading Gains with the Anchored VWAP is going to continue to help investors and traders alike; better yet, help our entire industry.

Ryan Detrick, Chief Market Strategist, Carson Group @Ryan Detrick

Brian takes a complex subject in the financial markets and makes it easy to understand through explaining the who, what, why, and how. This book helps readers understand how basic supply and demand principles drive the markets without the need to go through an entire economics course. If you're looking to understand technical concepts in the market and how they can be applied to actual trading strategies, this is a book you will want to have on your desk.

Jake Wujastyk TrendSpider.com, Founding Team @Jake_wujastyk

Brian's new book on reactive technical analysis is a great edition to any trader's library. He explains in detail how traders can use the Anchored VWAP to create profitable trading strategies. If you're looking for a way to quantify trading price action and increase your odds of profitability, this book is for you.

Steve Burns, NewTraderU.com @SJosephBurns

MAXIMUM TRADING GAINS WITH ANCHORED VWAP

**MAXIMUM TRADING GAINS WITH ANCHORED VWAP: THE PERFECT
COMBINATION OF PRICE, TIME, & VOLUME**



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Opinions expressed are subject to change without notice. The risk of loss in stock trading can be substantial and traders should carefully consider the inherent risks of investments in light of their specific financial conditions.

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It is said that a man's success is in direct proportion to the kind of woman with whom he shares his life. My wife Leanne brings out the best in me, in my work and my personal life. I am truly blessed to be able to share in all of life's ups and downs with her. I love you Leanne.

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FORWARD

It has been estimated that during the year 2020, some ten million people opened a brokerage account for the first time. In the first six months of 2021, another ten million new brokerage accounts were opened. If the statistics are to be believed, then in a span of eighteen months we've seen the start of the investing careers of over twenty million Americans. According to the brokerage firm Charles Schwab, approximately 15% of its 31.5 million retail customers first got into the stock market in 2020. The timing, frankly, has not been great.

While the pandemic gave rise to a generational boom in curiosity about investing and trading, the aftermath has been a punishing experience for most participants. In attempting to estimate the damage of 2022's bear market, JPMorgan Chase researchers have determined that in the first ten months of the year, the typical personal portfolio has fallen by 44%. Among some of the younger, more aggressive traders in this newly arrived class, you can imagine the losses being significantly worse. The anecdotes and chatter make it abundantly clear that we now have millions of people risking their money each day in the stock market while very few of them have any education or strategy beyond reading chat rooms and pressing buttons.

Undoubtedly, in the aftermath of a financial market plunge, people will be out seeking better information about investing. The desire for education always comes after a lot of money has been lost, never beforehand. And that's perfectly normal. Every generation has to learn for themselves. The stories of veterans or the lessons found in books will never be able to replace the power of firsthand experience with losses.

Many of the new entrants will make the decision that they'd like to do a lot less overall and leave more of their results in the hands of the market gods. These investors will eventually discover iShares and Vanguard, the SPY and the QQQ. They'll make simpler decisions about asset allocation and let the future take care of itself. They'll buy index funds and pursue dollar cost averaging strategies and find something else to talk about at backyard barbecues now that the desire to trade stocks has come and gone.

But not everyone.

For many, it will become more than just a hobby or a passing fad. The passion to trade and be involved in the markets will be a lifelong pursuit. A daily activity. In some cases, a calling. Among the generation of 2020's new market entrants, millions of people will find themselves in this category of active trader. And they're going to be on the hunt for methods, strategies and insights that can help them improve what they're doing. They'll be in search of structure and meaning. Actual expertise. Rules. Signal. Clarity.

One can only hope that they'll encounter the teachings of Brian Shannon, as early as possible, upon their journey.

I first became aware of Brian Shannon toward the end of the aughts decade, in the aftermath of the Great Financial Crisis, when I began writing publicly about stocks and investing on my blog. Then, like now, millions of people were in search of good answers about investing and trading. They watched as some of the most storied investment houses on Wall Street had blown themselves to smithereens, having ignored even the most basic tenets of risk management in their own proprietary trading. Was there anyone else out there worth listening to? Worth trusting? The more you'd ask this question of professional traders, the more you'd hear Brian's name. Again and again, the people who knew referred to Alphatrends and Brian Shannon.

Intrigued, I decided to take a look at what all the buzz was about. Brian was popular among traders on social media, but so were a lot of people. Watching his early videos, made in the infancy of YouTube, you could tell there was something meaningful going on, with all kinds of instruction and narration as the screen flashed upon his latest charts and trading setups. He had an explanation for why he was doing things, and there was a depth of detail going into his decisions each day you simply did not see elsewhere. His work spoke for itself and his popularity as both a teacher and a leader was not surprising. Brian Shannon is a trader's trader. His influence can be seen and heard among trading communities around the world.

So I had become a fan of Brian's work before meeting him in person. We eventually got together and bonded over a powerful idea about there being truth in price. Honesty in what people actually do in the markets versus what they say they do. Price isn't always right but it is absolutely always the reality of what's taken place that day. Undeniable. So there we were - he, a trader, and me, an investor, working on very different timeframes and behaving quite differently in the markets each day. But we agreed that there is meaning to be distilled from the actual buying and selling of real market participants. Both of us preferred the concept of respecting price as opposed to following our feelings. I eventually internalized and adopted one of his most well known colloquialisms: Only Price Pays. Brian likes to point out that one can obsess over any aspect or dimension of market-watching that they'd like, but, in the end, the price of the stock (or bond, or commodity, or coin) is the thing that will determine how much has been made or lost by every market player. There are no conditions, no asterisks, no footnotes and no do-overs.

In his new book, Brian introduces the concept of the Anchored Volume Weighted Average Price or AVWAP, an evolution of the work he's been doing for decades. Brian likes to point out that he didn't invent looking at volume weighted average prices for information, but that he has certainly become the VWAP's adoptive father in terms of promoting its use as a trading tool. Brian's explanations of this approach to trading, along with over one hundred color charts, will serve as a definitive framework for understanding the three most important components in the market: price, time and volume. His constant emphasis on risk management and market psychology will fill in a lot of the knowledge gaps that so many traders are currently struggling with, regardless of how long they've been working on their craft.

I was fortunate to meet and begin learning from Brian early enough in my career that it's made a meaningful difference in how I think about and process the things I see across my screens each day. I hope he will have a similar impact on the next generation who will be discovering him for the first time as a result of this book.

Downtown Josh Brown
Ritholtz Wealth Management LLC
Long Island, New York, October 2022

PREFACE

How I Discovered and Why I Use the Anchored VWAP (AVWAP)

I wrote this book to introduce the Anchored Volume Weighted Average Price (AVWAP) to new users. For those who are familiar with it, this book will advance new concepts and strategies to help you become more profitable.

Before you dive in, I thought you'd be interested in how I became an expert on this important tool. Here's my "origin story."

In the late '70s when I was about ten or eleven years old, I had a clue that I would do something in the stock market as a career. My father was a doctor and when he wasn't on call we watched Wall Street Week with Louis Rukeyser on PBS. It's on Bloomberg now, but it started out on Maryland Public TV.

I was a teenager when LoJack made local news for giving Boston Police transponders to help with the skyrocketing rate of auto thefts in the city. With a few years of W\$W under my belt, I had the bright idea to take all the money I'd earned caddying and delivering newspapers and buy some LoJack stock. At the time it was trading at \$5/share and my dad agreed to go in with me. I turned over my \$500 and he bought 1,000 shares. Yes, you're right, he gave me 10:1 leverage and I didn't even realize it at the time.

The shares doubled in about three months. From that point on I wanted to be a "stockbroker," not because I wanted to sell stocks, but because that's the only job description I'd heard for someone who works with stocks and bonds.

After studying business management in college, I started at a firm that is best described as a boiler room operation. The lines out of the Ben Affleck movie *Boiler Room* were basically our sales pitches, but I didn't want to be in sales. I wanted to buy and sell stocks.

Like most brokers learning the ropes, I moved from firm to firm. No one was teaching technical analysis, they just told you what they wanted you to sell. While I was working at Lehman Brothers, the best producer in my office used the strategy of buying companies that recorded positive earnings surprises and used charts to back them up. That's where I learned to be a salesman, which is an important life skill, but again, not what I wanted to do all day. I'd been reading Investors Business Daily, which had some charts, but I'd still never even heard of the concepts of either AVWAP or the very closely related Volume Weighted Average Price (VWAP).

Denver lured me from the East Coast in 1991 and I had learned about technical analysis and started trading online with a 24k dial-up modem. During the years between 1995 and 1998, I taught a class for the guys in my office on my own methods of technical analysis, even though I still hadn't been exposed to VWAP. One day I saw an ad, "Trade with our capital. 20:1 leverage" which intrigued me. I kid you not, the advertiser's name was Generic Trading out of New York. They said to trade their funds you had to have \$25,000 and be a registered broker.

In 1993, when I was only 23-24, living in a little house with my wife and a new baby. I didn't have much, but I had my brokers license. So I scraped the money together and quit my job. It was a completely foolish decision, but it was also the best decision because it worked out. I controlled \$500,000 in buying power as a trader. The firm gave me almost no support other than a basic quote package. There must have been charts, but I can't remember them. They would have been basic. They took ten percent of my profits and part of my commissions. Their idea of support was, "Here's how well you did and here's your check."

You might not believe that a young man didn't take big advantage of the leverage, but I couldn't afford to lose money. My \$25,000 was really just a stop loss for my firm, not something I was prepared to lose. I made money every month using a strong risk management philosophy that sticks with me to this day: I don't chase things. Risk management is "Job #1" as a trader.

In 2002, I left Generic Trading and worked for MarketWise Securities in Colorado, where I taught technical analysis and trading classes and headed up the proprietary trading department. MarketWise is where I started using RealTick software and saw VWAP for the first time. At that time, I saw it as a trendline tool. Most software charts allowed you to draw a straight horizontal or vertical line. This software had an option to see a VWAP line. Instead of going horizontal it would follow the price up (or down) and then hit a point and bounce. "What is that bounce?" I figured out that it was the average price and concluded that something's here that makes people buy (or sell) at the VWAP level. I knew it was a measure of market psychology and supply and demand.

RealTick displayed a VWAP for only one day and I found a way to get a five-day VWAP out of it. I couldn't anchor to the middle of the day or anything else, but started noticing that it was useful anyway. For a long while I would anticipate with it—use it as an extra piece of information to build my confidence on a trade I was already looking at. It wasn't my primary tool then, but was becoming more important. I wanted to know more, like what if I could look at a chart with a VWAP for more than five days? What about tracking at the start of when a company reported earnings 13 days ago? The tool wasn't designed to do that, so I hacked it to see the VWAP that way. I didn't realize why it was important, but knew that it was.

That's when I started wondering how I could view VWAP similar to a moving average instead of just a horizontal line. I wrote my first article about it in 2005, "Chase the Gap or Wait for VWAP."

I continued to track and use the VWAP as I moved on to other business ventures, including running a day-trading office. In 2015, when Michael Thompson from the trading platform TC2000 asked me to use their software for teaching my technical analysis classes and in my training videos. I said, "If you can create a point-and-click volume weighted average price tool for me that allows me to set multiple starting points and move them around, I'll use your

software.” A couple of months later, they did.

TC2000 called this new feature “Anchored VWAP by Alphatrends.” Others developed their own versions of the same software features and came up with their own names. I’ve listed some of these in Appendix C, “Sources for Anchored VWAP on Charts.”

INTRODUCTION

HOW TO USE THIS BOOK

My goal for this book is to give you a thorough understanding of the VWAP and the AVWAP so you can learn how to interpret market action more accurately. This knowledge will allow you to make better trades.

The typical technical analysis tools to look at on charts are; moving averages, Moving Average Convergence/Divergence (MACD), relative strength, etc.—they're all part of the universal curiosity people have for trying to crack "the secrets" of the market. After three decades, I realized that simplicity is the market's greatest disguise. Simple works. I focus on the current price, the price's behavior over a few different timeframes, a couple of moving averages over different timeframes, the volume, and the AVWAP. The beauty of the AVWAP is it represents the absolute truth of the relationship between a stock's supply and demand and it is a 100% objective tool. It may be too obvious to repeat here, but the interaction between supply and demand is the primary determinant of price and the AVWAP is the best tool to show us supply and demand.

This book has three sections.

Part I, Foundations of VWAP/AVWAP- It will benefit both novice and veteran traders to start here. This material is the foundation for understanding VWAP and AVWAP. You may be familiar with a lot of the terms and concepts presented, but they have never been presented in AVWAP analysis. It covers the components of VWAP and AVWAP, how and why institutions use it, how it is calculated, and the psychology of it. This is a fresh approach. The material laid out here is the foundation for the strategy heavy Part II.

Part II, Using AVWAP- This is the strategy section of the book. It is packed with charts and detailed strategies you can use in the markets every day. You will learn how price changes in public markets so you can find the highest-probability, lowest-risk trade ideas suited to your personality, timeframe, and objectives. We will study examples of AVWAP where it was a definitive signal to act and also study examples where it provided no value. Nothing works all the time in the markets. Therefore, I emphasize risk management in every example. I want this book to help you to better understand supply and demand in the markets so you can make more money. There is nothing more accurate than the AVWAP to guide our analysis objectively. These are the same strategies I use in my daily trading.

Part III, Appendices- Newer traders who may not be familiar with the foundations of technical analysis will benefit the most from this section. They might even want to read this first to see how the information in the rest of the book fits with concepts I have written about over the last three decades. These are primers on market structure and the Understanding Market Structure Chart (including the market stages of: Accumulation, Markup, Distribution and Decline), moving averages, trend alignment and more. You will also find some reference materials to download and software providers of AVWAP.

I geared most of the material towards swing trading. Swing traders hold a stock from a few days up to a couple of months. Swing traders attempt to have their money in stocks that are in a longer-term trend, whether higher or lower. When momentum wanes, it is time to harvest profits. Their goal is to leverage time and capital by being involved in the primary trend moves and to avoid the natural trend corrections. When done properly, swing trading attains the goals of steady growth of capital and avoids large losses.

It is up to you whether you want to use technical analysis as a stand-alone tool, combine it with fundamental analysis, or use other methods of trading and investing. I am not here to convince anyone what to do with their money, only to provide a comprehensive overview of the technical tool which has given me the best results. I have written this book in a way that is easy to understand, and I am convinced that you will choose to make the AVWAP part of your arsenal.

Brian Shannon, CMT
@alphatrends

PART I
FOUNDATIONS

CHAPTER 1

VWAP AND AVWAP

“If you have knowledge, let others light their candle in it.”

—Margaret Fuller

Chapter Objectives

1. Understand the difference between VWAP and AVWAP
2. Understand how the VWAP and AVWAP are constructed
3. Understand applications of the VWAP and AVWAP
4. Learn how VWAP and AVWAP became analysis tools

Technical analysis indicators are timing tools, of which the VWAP and AVWAP are two. They were created to help us identify the right stocks, at the right time, and at the right price for trading success. Over my 30+ years of trading, I have studied all the popular technical analysis tools at some point, everything from; MACD, RSI, Stochastics, Kurtosis, Gann, Elliot Wave, and more. A lot of them were helpful, but I couldn't find true consistency in their interpretation. My deep understanding of supply and demand in the market came about in 2003 when I first encountered the VWAP. This book focuses on the VWAP, and even more so, the AVWAP.

Components of the VWAP and AVWAP: Price, Time, and Volume

Our study of market action with AVWAP will begin with a study of the three most important variables in auction markets. Those are price, time, and volume and they are the components which build the AVWAP.

Price is how we keep score. It is how we determine success or failure; there is nothing subjective about its measurement.

Time is a constant. We cannot change or manipulate it. Time is how we organize market data, and it becomes the most subjective component when you decide where to anchor your VWAP starting point.

Volume is a variable that is affected by the decisions of all market participants to buy, sell, or stand aside. At any specific price point or within a price range, the number of buyers and sellers varies depending upon a number of factors. You will learn about these factors in this book.

The study of these market components allows us to glean greater insight into who has control of price action: buyers or sellers, and how committed they are to their respective intentions. Together, price, time and volume, help us to execute more profitable trades.

Volume Weighted Average Price (VWAP)

The Volume Weighted Average Price (VWAP) is the cumulative average price of a stock traded during one day. The calculation of the VWAP begins the moment the market opens, builds throughout the day, and concludes at the close of the session. For equities, users can choose whether to use pre/post market hours in the calculation. The daily VWAP resets at the start of each new day.

Because price is weighted by volume, not time, the VWAP is the true dollar average for the time period studied. Each share traded (by retail and institutional traders, long and short) receives equal weight in the calculation. The VWAP is more responsive to volume trends than price action because of its volume weighting feature. Accordingly, as volume levels change (pace of trade) throughout the day, heavier volume periods have more impact on the movement of the VWAP while lighter volume periods have less impact on the movement of the VWAP. The VWAP is a straightforward study. There are no settings, adjustments, or offsets to complicate its measurement.

Anchored Volume Weighted Average Price (AVWAP)

The AVWAP is the same as the VWAP except that the starting point (the anchor) for the volume weighted average price calculation is set by the user at a specific meaningful point; that is, it is not simply the start of the trading day.

When we start the VWAP calculation at a point other than the start of the current day, it becomes “anchored” to that first point and we call it an “AVWAP.” The AVWAP allows us to measure VWAP from any point, on any timeframe, for any interval. The trader chooses a starting point at which to anchor the VWAP and once the starting point is so anchored, then from that point forward the AVWAP calculates the cumulative price and volume of each transaction, the result being elegantly displayed like a moving average along with price.

As you will learn, the “anchor point” is the most subjective part of our analysis. We will explore many valid anchor points to begin our analysis and why we anchor at those points. ***The AVWAP broadcasts the message of the market, that is whether sellers or buyers are driving the then-***

current price trend, more clearly than any other technical tool I have studied in my 30+ year obsession with the stock market.

The book explains in detail the AVWAP, its components, calculation, how to choose the anchor point, AVWAP strategies, and how you can use it to increase your profitability.

There are two VWAP lines in Chart 1.1, the first one (light blue) is anchored to a large price movement event. Because it starts at a point other than the beginning of a new day, it is an AVWAP. The second one (dark blue) begins with the new day, this is the traditional VWAP calculation.



Chart 1.1 Each candle on this chart represents two-minutes of trading. Chart: @TrendSpider

How VWAP and AVWAP Became Analysis Tools

The VWAP and AVWAP have morphed from benchmarks of execution measurement into technical tools that are used by market participants in all timeframes to assist in trend recognition and timing of buy and sell decisions. I first noticed a “VWAP” on the trade platform RealTick in 2003. At that time, the only way to view VWAP was from the start of a new trade day. I found I could change the number of days to view the cumulative VWAP for as many days as I wanted and this allowed me to choose the day where I could set my anchor.

This “hack” allowed me to experiment with the week-to-date (WTD), month-to-date (MTD), and year-to-date (YTD), as well as from gaps and even IPOs. VWAP analysis immediately fascinated me and, more importantly, I started to make more money in my trading with it. **I was hooked by the possibilities of AVWAP analysis. It remains my most important technical analysis tool to this day.**

It wasn’t until 2015 that a major technical analysis platform (TC2000) added “Anchored VWAP by Alphatrends” to their excellent chart platform. This was a significant breakthrough for its simplicity and the ability to point and click the anchor from any point on the chart, on any timeframe. From that introduction to the trading world, there have been several chart applications that have added the “Alphatrends Anchored VWAP” to their platforms. I am truly grateful that the trading world has embraced the value of AVWAP analysis and am humbled that my efforts have made it possible to access the Anchored VWAP on many great chart platforms. See the list of chart platforms with AVWAP in Appendix C, “Sources for Anchored VWAP on Charts.”

How VWAP and AVWAP Help Traders

The way the AVWAP combines price, time, and volume into one easy-to-understand indicator gives us a blended view of whether it is the buyers or sellers who are in control. This also applies to the VWAP, but for purposes of this book we are generally focusing on the AVWAP.

This valuable information allows us to better understand market structure so we can:

- Identify low-risk, high-probability market and individual stock opportunities.
- Time our entries into the market and individual stocks more accurately.
- Stand aside through periods of uncertainty.
- Cut our losers early based on objective recognition of price action.
- Hold our winners longer.
- Exit our winners more efficiently.

In short, AVWAP is a tool which can help any timeframe participant (from daytraders to longer-term investors) make better market timing decisions and achieve greater market profitability.

On a chart, the VWAP is represented as a line along with price. The way it builds with each piece of data allows us to recognize nascent trends. In the chart 1.2, on the left it shows that buyers are in control of the daily session while the stock is above the ascending VWAP. The chart on the right shows that the sellers maintain control while prices are below the declining VWAP.

Who is in Control? Bulls or Bears?

The AVWAP shows us the genuine relationship between price and volume over any period. Which side is in control and gaining or losing control of the trend, buyers (bulls), or sellers (bears)? Our job is to “objectively listen to the message of the market” for the timeframe we wish to engage in our trades. The AVWAP provides as much certainty as we can hope for in the study of price action.

We can measure AVWAP on any security or market where price and volume data are available. That includes individual stocks, ETFs, futures contracts, cryptocurrencies, and Forex markets.



Chart 1.2 & 1.3 Two-minute candles for a stock in an uptrend (left) and down-trend (right) for one day. Charts: TC2000.com

VWAP or AVWAP?

Do not let the terms VWAP, AVWAP, and “VWAP anchored from” confuse you. In this material you can assume that any reference to VWAP on its own is for one day. If it says AVWAP it refers to Anchored VWAP and we might also say “the VWAP from” which means “from the anchor point” and that makes it an AVWAP.

There are dozens of technical indicators that we can choose to use in our analysis of stocks and other markets. The VWAP and ability to anchor it from key price points as an AVWAP is the most accurate visual representation of who is in control of the market from any specific point. At first glance, the study and implementation of an AVWAP may seem complicated, but it is a simple study anyone can learn and easily apply to their market analysis and decisions, regardless of timeframe. By the time you have read this book, you will recognize the ways the AVWAP simplifies how to observe and more accurately analyze market action.

CHAPTER 2

PRICE, TIME, AND VOLUME

“Time and tide wait for no man.”

—Geoffrey Chaucer

Chapter Objectives

1. Understand why price is the most important piece of information in the market
2. Understand how price creates new information
3. Debunk news media “reasons” for price movement
4. Understand that bull and bear labels are meaningless without reference to timeframe
5. Identify uptrends and downtrends based on the direction of the highs and lows
6. Understand how trends are formed and why you should trade with them
7. Understand the difference between a price correction and a time correction and their implications for trend continuation
8. Understand the deeper meaning of what volume tells you about a stock
9. Learn how volume adds meaning to our AVWAP analysis
10. Understand the importance of price, time, and volume

When you build a puzzle, you start with the easiest pieces first: the edges. The edges frame the foundation of the picture. You work from the edges to the next obvious parts like a bright object, oddly shaped pieces, and so on. Slowly, more of the structure of the scene reveals itself and the pace of progress quickens until you lay in that last satisfying piece to complete the puzzle.

The components of VWAP are price, time, and volume. These are the “edge pieces” in our study of market action in search of the next big winner. On stock charts, price, time, and volume come together in a way that allows the trained eye to objectively identify whether buyers or sellers have control of a stock’s trend, from any start point. From there, we can build our trade plan to find the lowest-risk, highest-probability trade opportunities on any timeframe.

Perfect Combination of Price, Volume & Time



Alphatrends Anchored VWAP

What is Price and Why is it Important?

We define price as an amount of currency that will purchase a finite quantity, weight, or other measure of a good or service. In the markets, it represents the price where the last transaction occurred. It is said, "don't confuse price with value." Nowhere is this truer than in the markets. Price is the fastest moving market variable.

Price Creates New Information

Price reflects the aggregate of traders' strategies and expectations about the market's future behavior, and, as a part of that, the current news headlines and events which affect our economy. It also creates new information. When prices change, it can cause others to enter or exit the market based solely on that price move. That is what technical trading is all about.

Price as Cause and Effect

In a supply and demand driven market, also known as a "liquidity market," price change is not only the effect of participants' actions, but it can also be the cause which motivates participants to act.

The Most Important Price

Whether we gain or lose on a trade is based solely on the movement of price. There is no other meaningful measurement of success in the markets. It is all about your profit and loss, "your P&L." If you have a position in a stock, the most important price is what you paid and how the market has responded since you got involved.

Time and Multiple Timeframes

Without any other reference, a simple statement such as, "I will call you at nine o'clock," has little value. Is that AM or PM? Which time zone are we talking about, what day, this week? In the markets, time and trends can also be ambiguous. When people say they are bullish or bearish, those pronouncements have little value without a reference to time.



Chart 2.1 This daily chart shows an overall "bullish uptrend" with "bearish periods" on the pullbacks. Chart: TC2000.com

While it may make sense to say to a friend or business associate, "I will call you at 9 p.m. next Tuesday," in looking at market trends we cannot be so precise with our bullish or bearish labels because trends may conflict on different timeframes.

If you were to ask if the stock in Chart 2.1 was in an uptrend or a downtrend, either answer could be correct. It depends on your timeframe. The longer-term trend is clearly higher (as represented by the big green arrow) but it doesn't mean you could just buy at any point and make money. If you purchased at the start of the smaller red arrows, that mark short-term downtrends, you wouldn't benefit from the longer-term uptrend until the trends came into alignment.

Why and How to use Multiple Timeframes

We have established that multiple trends exist for the same stock on different timeframes. The best approach is to use the timeframes together. When we do this, we avoid the confusion of bull or bear labels so we can focus on how the market operates and how to make more money.

First, we start with the long-term timeframe to determine overall money flows. Next, we move to the intermediate-term to plan our trade. Finally, we consult the short-term chart to fine tune our entries and exits.



Chart 2.2 These three charts are the same stock represented on daily, 30-minute and 5-minute timeframes. Charts: TC2000.com

Chart 2.2 blends three timeframes for the same stock. Look at the bottom axis for the time reference. We start with the long-term timeframe (three months) to determine overall money flows; we then move to the intermediate-term (three weeks) to plan our trade; and finally we consult the short-term chart (one-day) to fine tune our entries and exits.

Now let's look at the price action in Chart 2.2. To the left are daily candles, with the shaded portion highlighting the last three weeks. When we switch to a shorter timeframe it allows us to see more detail of the longer timeframe, like looking through a magnifying glass. The three weeks referenced in the middle chart are shown in more detail: 30-minute candles instead of daily candles. This middle chart's data is a closer look at the data shown in the blue-highlighted portion of the leftmost chart; however, the middle chart shows activity at 13x magnification (there are 13 30-minutes periods per trading day).

The blue shaded part on the middle chart is further magnified on the one-day chart on the right. The activity on the one-day chart is displayed in 5-minute candles instead of the 30-minute candles in the middle chart. If you look closely, you'll notice that this final chart shows only the last day of the left chart. Since the one-day chart is constructed of 5-minute candles, of which there are 78 in each 390-minute trading day, it is like looking at 78x magnification of the left daily chart.

Volume

Volume is the “V” in the VWAP. Volume simply measures the number of shares (contracts, options, and the like) transacted at a price or in a price range for various time increments. Vertical bars display trade volume under the price information. Volume is used to confirm or reject price direction, not as a timing signal.

When we learn to interpret the price/volume relationship correctly, it allows us to better gauge the strength of a trend and thus, greater confidence in our own decisions to buy, sell, or stand aside. Here are a few ways volume is important to our analysis:

- It assigns meaning to movement, measured in a more subjective, but more in-depth manner than price action alone.
- It offers insight into market psychology; it allows us to measure the emotional intensity level of the participants in the market being studied.
- It adds a dimension to price study that can confirm price action or signal caution that a move may have difficulty sustaining momentum.

The green volume bars correspond with days where the close was higher than the open.

The red volume bars correspond with days where the close was lower than the open.



Chart 2.3 Price and volume over a several month period. Each volume bar measures the total amount of shares which changed hands for the period it took to build the price candle above it. Chart: TC2000.com

The traditional way to show volume is directly below the price action. Chart 2.3 shows the volume color coded to the candle above. The green volume bars represent the candles where the daily market closing price was higher than the opening price and the red volume bars represent the days where the closing price was below the opening price.

Price and Volume Relationship

Volume is the best representation of how committed participants are to a market at any point. A healthy market move will see volume expand in the direction of the primary trend, peak near turning points, and diminish on the counter trend moves.

High-volume (relative to normal trading activity) can signal times of stronger confidence in a move, while low-volume times are often a healthy pause as the market digests a price move and traders consider their next trades.

A drop in volume in an uptrend is not always bearish. It is often a simple lack of supply in a stock with healthy demand. We want to be aware of the volume trend, but if it doesn't confirm price action with a volume expansion in the direction of the trend, it is not a reason to act, just something to be aware of. The purple line overlaid on the volume bars is the 20-day moving average.

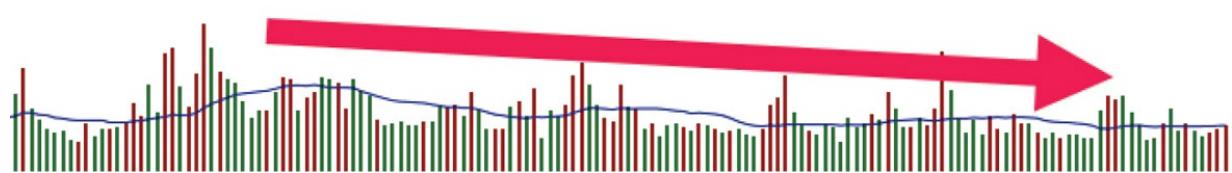


Chart 2.4 Note that the price is rising, while the volume traded is falling. Chart: TC2000.com

Volume is Always Second to Price

Volume analysis can supply us with important information about the conviction of the buyers and sellers in a market. It is important to remember that volume is always secondary to price, as in the end, price is the only thing that pays. We now turn to how institutional investors use VWAP and AVWAP concepts.

CHAPTER 3

INSTITUTIONAL BACKGROUND AND ALGORITHMIC TRADING

“Stocks never go up in price by accident – there must be large buying demand. Most of this demand comes from institutional investors, who account for more than 75% of the buying of the better quality, leading stocks.”

—William J. O’Neil from 24 Lessons for Investment Success.

Chapter Objectives

1. Understand how and why institutions use VWAP and AVWAP
2. Understand institutional orders

This chapter delves into how and why the VWAP became, and remains, so important to the largest participants in the market, institutional investors. If we know how institutions use VWAP as an execution tool, we have a better understanding of how to apply it as an analysis tool for our benefit. When we can recognize the actions of the largest market participants on a chart, we can join in on emerging trends in individual stocks and the overall market.

Why Institutions Use VWAP

The Volume Weighted Average Price (VWAP) was first referred to in March of 1988 in The Journal of Finance article entitled “The Total Cost of Transactions on the NYSE” by Stephen Berkowitz, Dennis Logue, Eugene Noser Jr. This is essentially when the VWAP was “invented.”

In the article, the authors stated that “The volume weighted average price on any day represents the price a “naïve” trader can expect to obtain.” This article ignited the study, analysis, and implementation of VWAP strategies, which continues to be developed to this day.

Originally, the VWAP was a benchmark to measure whether an institutional customer received a fair execution of their order by the broker who bought or sold a stock on their behalf. The difference between the reported price of a trade to the institutional customer and the VWAP let the customer objectively determine if their broker did a fair job in the execution of their order. The customer wants to know if they received “fair-value” for the time it took the trades to complete.

A portfolio manager wants to know how the price they paid compares to the average price of the stock during the time it took for the order to fill. If an order is filled at a price worse than VWAP, it brings into doubt the trading ability of the broker and may cause the manager to reevaluate the relationship and give their lucrative commission business to another firm.

Institutional Benchmark Example

If the broker purchased 2 million shares at an average price of \$20.45 and the VWAP during that time was \$20.60, then the customer should be happy they paid \$0.15/share less than the average transaction during that time. If, however, the customer order was purchased at \$20.80 when the VWAP was \$20.60, the customer would be unhappy with the broker. No one wants to pay more than the price a “naïve trader can expect to obtain.” Customers give more business to firms who consistently do well for them, which means bigger revenues and bonuses at year’s end. This objective measure aligns the goals of the broker and their customer.

This easy-to-understand benchmark comparison is why algorithmic VWAP orders make up most institutional activity. A large percentage of institutional orders in the markets today are executed as “VWAP orders.” These orders try to obtain a buy or sell price as close to, or better than VWAP during the time it takes to complete the buy or sell order. Most brokerages allow their customers to receive a “guaranteed VWAP” price for their orders. These orders reinforce the importance of VWAP, and thus AVWAP, through volume participation algorithms.

Volume Participation

Since large blocks of securities are rarely bought or sold in one single transaction, the true aim for a large VWAP order execution is not the best price, but liquidity; the goal is to make sure the order gets filled in the time allocated with minimum market disruption. The time to fill the order is irrelevant, it can be a large fund buying millions of shares of a stock over a month, or a longer period, or it could be an order to sell 250,000 shares of a stock between noon and the 4 p.m. close. Market direction is not an actual concern for VWAP order algorithms, the goal is to take part in volume proportionately through the day (or whatever the period) it takes to execute the order in full.

Algorithms

We often hear traders mention “the algos” in a stock. This refers to the automated buy and sell programs run by large institutions. A trading business will try to squeeze performance and margins anywhere possible; it’s about being efficient. The pursuit of efficiency in the markets has led to the development of computerized models to remove some variables where humans might not do as good a job as a computer. Trading can be tedious for a person; a computer

can refresh or change bids for offers with no human interaction. Sometimes, to complete a single order, it might take hundreds of individual trades to fulfill it. Computers do not get tired, and the algorithms do what they are programmed to do without mistakes.

Institutions do not want to disrupt the market with large orders, so their algorithms slice a large order into smaller orders. The smaller orders also mask the true size of their order from other market participants. This is important so that their orders are not front run (cut in front of) by other participants. These programs reduce market impact cost, which, of course, help increase performance measurements.

Market Impact Cost

Market impact cost is the effect a market participant has on the price of the asset it is trying to buy or sell. If a stock trades 1 million shares per day on average and you try to buy or sell so many shares that they constitute a large portion of the average daily volume of those shares, those buy and sell orders are likely to move the price of the stock. The pressure your buy order places on the supply and demand equation can cause an adverse price move, which forces you to buy at a higher price than intended. The same is true for a large sale of a stock. Your own sell orders have the potential to push the price lower, which makes your average sale price lower than intended. VWAP trading algorithms attempt to minimize overall costs by reducing the market impact cost of the execution of a large order.

Market Impact Cost is Reduced By:

- The amount of time over which the order is spread, as well as the intervals.
- Breaking large (parent) orders into smaller size (child) orders.
- Opposing buy and sell orders with different brokerages.

Different Institutional Goals

The focus of the strategies in this book are VWAP based trend trading and momentum, but it is important to recognize there are other strategies implemented every day by other style and timeframe participants. Some institutions buy more shares of a stock if it is under the VWAP because they perceive it has value relative to the average participant price that day. These same buyers will then sell shares into the stronger demand for shares when the stock is above VWAP since, by doing so, they receive a “premium” over value during that period.

As a group, institutions are as diverse in their strategies and timeframes as “retail” traders. There is no one strategy that fits all. It is not just as simple as saying “institutions buy below VWAP.” It may be the goal of a “value” institution to make their purchases while stocks are below VWAP, but a momentum fund might try to juice a trade in which they have a long position in order to induce others to buy the rising stock and create further upside momentum. As we will show in Part Two, Chapter 10, when we discuss short squeezes, buyers will sometimes become very aggressive about their purchase, hoping to inflict pain on trapped short sellers.

Parent and Child Orders

Large market participants do not want to tip their hand and reveal to the market that there is a big buyer or seller present. They need to disguise their orders to reduce “information leakage.” To disguise a large order and avoid having their orders front-run and reduce their market impact cost, large (parent) orders to buy or sell an individual stock get broken into smaller (child) orders.

A study of VWAP trades executed by the International Trading Group discusses this point in detail. “The sample size is 243,772 parent orders. The algorithm executed 13,468,847 child trades, meaning that on average each parent order turned into 55 child executions.”¹

In his testimony to Congress in 2021, Ken Griffin, the CEO of Citadel Trading stated, “Today, virtually all trades executed by institutional investors are in the form of program trades, such as VWAP and other algorithm trades.” According to their website, Citadel Trading “executes approximately 35% of all U.S. - listed retail volume, making us the industry’s top wholesale market maker.”²

Griffin said “VWAP trades are not large trades, it is not like there are 10 million shares to be bought, it is a trade that is sliced into small slices (100 or 200 shares) and *executed over the course of a day, a week or a month.*” I emphasized Mr. Griffin’s words about timeframe because they show directly that VWAP orders are not just for one day, they are also used for larger trades, which can take days, weeks, or months to execute. Remember this point when we study how longer-term VWAP levels will often act as support and resistance levels.

Example: Large Institutional Sale Order

Let’s consider a situation where a mutual fund owns 3% of the total outstanding shares of a stock. For whatever reason, they want to reduce their position size by half. If there are 500 million shares outstanding, they own 15 million shares and would have to sell 7.5 million shares of the stock to sell half of their position. Let’s say this stock trades 2,000,000 shares per day. If the fund dumped all 7.5 million shares of the stock on the open market, they would flood the market with close to four times its average daily volume with this transaction alone. A sale of this magnitude would cause a huge imbalance in supply and demand, and the stock would drop considerably to find enough liquidity to fill the order. A “sloppy” sale like this would cost the fund a lot of money and hurt their performance.

Rather than dump their stock all at once, it is more likely the fund would contact their broker and let them know they have a large block of stock to sell. The broker may choose to purchase the stock directly from the customer at a negotiated price. The broker would then sell it over a period which would allow the large supply to be absorbed into the market more easily. In this scenario, the broker takes the risk of selling the stock, and they could probably purchase the 7,500,000 shares at a discount to the current price. The discounted price given to the fund is to compensate the brokerage for taking on the price uncertainty and associated risks during the time it would take them to liquidate the stock.

If the fund was not inclined to accept a discounted price of the shares in return for the transfer of the risk as well as for the immediate liquidity created were the broker to buy all of the 7,500,000 shares, the fund may instead hire the broker to sell the stock using a sophisticated VWAP algorithm. In this scenario, the fund may decide to have the brokerage execute the order over the next 30 trading days and approximately 125,000 shares would get sold per day (just

6.25% of the average daily volume); a number that the stock would be better able to handle rather than a sale of all 7,500,000 shares at once.

Time Slicing

Even with the liquidation of just 125,000 shares per day, there are certain precautions the broker will take to ensure they do not cause a disruption in the market that would impact their efforts for a fair price. Just because traders generally will accept the price a “naïve” trader would expect doesn’t mean traders are dumb. The broker will not simply sell 125,000 shares at one point in the day. Instead, this is where “time slicing” of the order comes into play. The broker considers the average daily volume of the stock for the number of days it expects it would take to liquidate the order in full. In our example, they might consider the 30-day average volume. Once they assess that there is sufficient liquidity to handle their 125,000 shares per day, they would then consult a volume distribution chart of the stock over narrower timeframes.

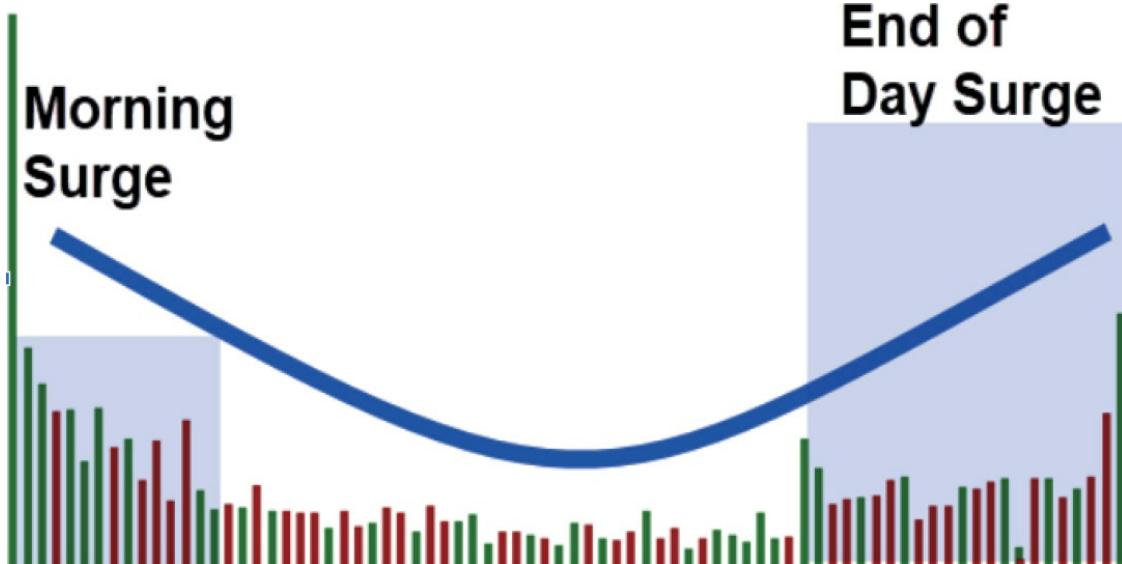


Chart 3.1 This volume distribution chart is constructed of 5-minute candles. It shows a typical volume pattern over the course of one day.

It is common to see this “U-shaped” curve in the markets, with the heaviest volume in the first and last hours of the day. This U-shape pattern occurs in the broad indices and in individual stocks. The typical day experiences a volume surge in the morning, a midday slowdown, and a larger volume into the close. It is like a runner who starts a race quickly, settles into a sustainable rhythm, and then tries to finish the event with everything they can. Because of volume participation orders, the programs reinforce this U-shaped pattern. Not all institutions will use the same time periods, they may be 5-, 10-, or 15-minute periods, or any time equally divided by the 390 minutes in a trading day.

To achieve a price execution as close to the daily VWAP as possible, our institution would carve their 125,000 shares per day “parent” order into several “child” orders. Let’s say the first 5-minute period of the day, the stock typically trades 2% of the full daily volume. The institution would then sell 2% of their 125,000 share order, that is, 2,500 shares in the first five minutes of the day. By using a time increment, the institution executes a larger portion of their order at the most liquid times of the day, and they sell fewer shares during the less liquid times of the day. Participation in a small portion of volume during each period makes it less likely that other traders will detect the broker’s selling activity, and even less chance that the broker’s sales would be harmful to the average price the stock trades through the day.

Institutional orders may take place all day or during a time slice of the day. VWAP orders are set by: duration (buy or sell over a portion of the day, full day, week, month, or other relevant period), price limits, volume percentage limits, or other pertinent criteria. There is no standard time increment for a VWAP program to slice its orders. It is up to each institution to choose how granular they want to be. An example of a shorter-term VWAP order could be “buy 250,000 shares of AAPL from 1-4 p.m., pay no more than 0.25% above VWAP and don’t constitute over 10% of the volume.”

Often, the brokerage firm does not know the true intention of the customer they represent on a transaction to buy or sell. In fact, customers often use multiple brokers to avoid the market’s knowing their true intent. It is not uncommon for a net buyer of a stock to give sell orders at certain levels with competitive algorithms that drive the price back down to VWAP, where they have a larger buy order ready to be filled.

What About Dark Pools?

Dark pools are private exchanges designed to facilitate block trades between institutional investors. These transactions are not reported to the exchanges in the consolidated tape, which can be a criticism of VWAP analysis. The volume on dark exchanges is generated by funds who swap large positions with other institutions at a negotiated price, and are not buys and sells that effect price change. If we don’t see these transactions and neither do other participants who look to volume for directional clues, does it matter? Does a tree make a sound when it falls in a forest?

The fact is, we never have the complete picture of who or why someone transacts in a stock, if their position is hedged, or if their trade is part of a more complicated strategy. Risk is ever present in the market and one risk is a lack of complete information. We must make certain assumptions in our analysis, which is why risk management is always at the cornerstone of any strategy we implement.

Even Warren Buffett Uses VWAP

Chart 3.2 shows how Warren Buffett sold his entire position in Southwest Airlines over a two-day period. The reported price he received from the sale of his 2.3 million shares was \$32.22, which was the exact VWAP for those two days. It is likely that Mr. Buffet negotiated a “guaranteed VWAP” price for his sale with the broker. Looking at the chart, it doesn’t seem like the broker made money on this order since, for most of the time, the stock traded below the declining VWAP of the time it took to fill the order. Warren wins again.



Chart 3.2 Shows 2-minute candles for two days. Chart: TC2000.com

Now that we have made it through this tedious section with a solid introduction to how institutions use VWAP in their daily business, we can move forward to the more useful aspects.

1 O’Hara, Maureen, “High Frequency Market Microstructure,” page 8

2 <https://www.citadelsecurities.com/products/equities-and-options/> Accessed November 8, 2022

CHAPTER 4

MARKET SENTIMENT TOOLS, PSYCHOLOGY, AND ANCHORING

“If you do not know who you are, the market is an expensive place to find out.”

—Adam Smith

Chapter Objectives

1. Define market sentiment tools
2. Recognize AVWAP as a market sentiment tool
3. Understand how your psychological makeup impacts your trading
4. Understand the anchor bias and how we relate it to our trading

In the prior chapter, we discussed several aspects of how institutions accomplish their trading goals and how their trading creates an impact on the market. While institutional traders and their trading strategies have a large influence on the market, they are not the only influence on the market. Less tangible but very important factors are the psychological and behavioral motivations of all traders. We now look at some of the micro (you) and the macro (the market) psychological and behavioral factors that effect trading.

Your mental makeup, how you handle stress, and how you think about and manage risk are all important components that will matter more to your success than any system or perceived edge you bring to the market.

Behavioral finance attempts to understand financial decisions through the combined analysis of psychology and investing. It is the study of how human and social-emotional biases can affect price behavior and how to measure it. As with any market measurement, the goal is to gain insight to increase profits.

Any discussion of “market psychology” can sound intimidating at first, but we do not have to possess an advanced degree to understand what drives market behavior. Instead, we need to have some commonsense psychology. Look at any chart and imagine how you would feel if you were long, short, or in cash. As we analyze multiple timeframes and use tools like the Anchored VWAP, we gain a greater sense of market psychology.

Market Sentiment

“Market sentiment refers to the overall attitude of investors toward a particular security or financial market. It is the feeling or tone of a market, or its crowd psychology, as revealed through the activity and price movement of the securities traded in that market. In broad terms, rising prices indicate bullish market sentiment, while falling prices indicate bearish market sentiment.”

—Investopedia.com

Sentiment attempts to quantify a nebulous concept of the collective psychology of the market participants. While quantitative studies measure facts about price behavior, we can think of sentiment as “opinion mining.” Market sentiment represents the mood of the market, bullish or bearish. It tries to measure crowd psychology. The market does not care about the opinion of an individual. It is the cumulative opinions and actions of participants and price movement that matter.

Why are we Interested in Market Sentiment?

Crowd behavior determines how and why trends begin, continue, stall, and reverse. People are more alike than different and that is certainly true in the markets and in what drives our emotions to buy and sell. If we understand the individual factors that motivate the crowd, we can put our personal biases aside, anticipate crowd behavior and plan our trade around their actions.

There are things to be aware of in the market that do not always equate to a reason to buy or sell. Seasonal tendencies, and extreme bullish or bearish measurements are good to be aware of, but they play a minor supportive role to price action. The goal of sentiment measurements is to gain insight into the psychology of the other market participants in order for you to find an edge and determine whether they may be buyers or sellers of the overall market or individual stock.

Traditional Sentiment Measures

There are no shortage of traditional measurements of market sentiment. Some of the popular ones such include the CBOE Volatility Index (VIX), the NYSE 52-week highs versus lows, The NYSE Bullish Percentage, the percentage of stocks above or below a 50- or 200-day moving average, Investors Intelligence Sentiment Poll, and others. More recently, data from social media messages on Twitter and StockTwits or Google searches can be used by

“smart algorithms” to assess the mood of the market.

Markets are Not Always Logical and Rational

Sentiment can change for events that seem unreasonable (or lack a reason), but there is always a reason for price change. We simply aren’t always privy to the “news.” This can be a source of frustration for many market participants. Emotions and biases influence traders and investors, but they also blend with rational thought processes. Human biases are a significant reason that algorithmic trades have become the dominant source of buying and selling in our markets. Humans make mistakes and act on impulses and emotions; algorithms are designed to minimize human errors.

It is easy to get bogged down in the intellectual aspects of markets and trading in order to gain an edge but, as we know, only price pays. This brings about the need for an objective measurement and Anchored VWAP serves that purpose because the AVWAP can simplify and help us distill or quantify the market sentiment by allowing us to measure the result of all of the sentiment-influencing biases, news and behaviors, rather than obsessing over those factors.

“In the short run, the market is a voting machine, but in the long run it is a weighing machine.”

—Benjamin Graham

Personal Psychology and Anchoring

Before we attempt to understand the behavior of crowds, we need to begin with an assessment of our own mental inventory and the factors that influence the decisions we make in the markets. The market does not care about our individual opinions of price action or when we buy and sell. It is the collective actions of the participants (both by humans and by the algorithms programmed by humans) that create crowd psychology.

“I fear not the man who has practiced 10,000 kicks once, but I fear the man who has practiced one kick 10,000 times.”

—Bruce Lee

A few of the personal factors that play into individual financial psychology include age, timeframe, risk tolerance, funds available, time available to commit to the markets, whether you are a fast or slow thinker, and others. One of the first goals of any market participant should be to find a combination of: 1) an approach or strategy and 2) a timeframe, which together fits your personality. These two critical pieces of the puzzle are often overlooked, as people jump from style to style without ever committing to one. Always be curious about alternative approaches, but try to become a specialist in just a few setups, developed from your experience in trading as you follow an overall plan that suits your personality, so that you can consistently profit.

Anchoring Bias

Daniel Kahneman is a psychologist and economist who won the 2002 Nobel Memorial Prize in Economic Sciences. One of the investor biases identified by Kahneman is the Anchoring Bias. Investopedia defines Anchoring Bias as “the tendency to be over-influenced by the earliest information presented to us when making decisions, thus allowing oneself to be driven to a decision or conclusion that is biased towards that initial piece of information, the “anchor.” Anchoring is a cognitive bias known as a “heuristic” or “rule of thumb.”

In the markets, our cost basis is the personal scorecard by which we measure the success or failure of our trade or investment. The price we paid becomes our anchor point. It is the basis of our “price memory.” It is our subjective anchor point which can influence our future buying and selling decisions.

Here are several types of anchoring biases that can negatively affect your trading strategy if you are not mindful of them.

Personal Anchors

We all have personal dates that we anchor from. Think of your birth date or “our IPO” and the annual celebrations of that day. We also attach significance to other dates, such as graduations, anniversaries, or holidays. Or even casual anchors, “she seems so much happier since she met Bob.” These are mental reference points to which we assign meaning in order to keep track of our progress or lack of it. These subjective events can influence our thoughts and even our behaviors.

I experienced the anchoring bias after going through a divorce. My account equity was divided in half in the divorce settlement, and I was anchored to the previous higher balance. I found myself swinging for the fences because I had a smaller account and tried to get it all back at once. Because my anchor was the previous higher balance, it clouded my judgment and decision making. When I quickly grew my post-divorce account balance by 50%, I didn’t view it as a victory. I was still anchored to the pre-split balance and viewed the account as being down 33% from the former peak. My anchor point didn’t allow me to see my positive performance for what it was, a 50% gain. It wasn’t until I got back to my anchor of my predivorce equity high that I was able to view my gains as more than simply a return back to even.

Price Target Mental Anchors

Consider the danger of price targets as anchors for a stock. If an influential analyst appears on television and mentions that he is bullish on XYZ stock, which currently trades at \$55, but that his price target is \$150. When people hear such a bullish proclamation, they often get anchored to that target and neglect risk management. Instead of raising their stop (to protect accumulated gains) as the stock climbs, they fixate on the price target “the expert” projected.

It is a shame to see anyone purchase a stock at \$55, ride it up to \$100 or more and refuse to sell as it weakens because, “the analyst said it would go to \$155.” Don’t get stuck on a price target and refuse to take gains when it is prudent, or worse, ride the stock all the way back down to the purchase price, or lower. Winners do not “take care of themselves.” You need to manage winning positions based on price action. We will discuss the use of AVWAPs as stop levels in the strategies section.

Whenever I share a trade idea for a stock, I have a general idea of where the price has the potential to go, but I seldom mention a specific price target. Often, the level I believe the stock can move to is an AVWAP from a prior high, which becomes a “level of interest” where resistance, which is discussed

in detail later in this book, may be found. I look at these levels not as “price targets” but a place we could reasonably expect the stock to travel to. Rather than mention a price target, I refer to “worst case” stop levels pertinent to my timeframe. I don’t want to fill people’s heads with ideas of riches fueled by outrageous price targets. Instead, I want people to remember the cardinal rule: risk management is always job #1.

Influence of Market Anchors

An anchor price held by a larger group of participants will have far greater significance than one held by a handful of people. The greater the market’s price memory for a stock the more likely that memory effect will influence future crowd behavior. The market “crowd” is a more reasonable measurement than our personal anchors because it represents a consensus of the market participants’ mindset. We can never possibly know the reasons or motivations of each individual participant to buy or sell, and fortunately, we do not need to.

Important Anchor Points

We derive shared market anchors from various events deemed significant to the market. When there is an event which causes a big shift in the market’s psychology, it becomes a level to anchor a AVWAP. These events can be a price breakout for no reason other than price action, or we may associate it with a fundamental catalyst such as an earnings report, industry or sector news, or an economic report. We will explore the individual catalysts and specific anchor points in depth in the strategy section.

Suggestions and Ideas for Personal Trading Practices

Understand What You Can Control

There is little we can control in the market. This can be a source of frustration to those without a solid understanding of market structure and a plan to deal with uncertainties and market surprises. The illusion of control is greater than its reality because of the subjective nature of our analysis. While we may do our best to make sure our analysis is unbiased, the market will throw surprises at us, which can devastate our accounts in the short-term. We want to plan for the best and prepare for the worst. That is why an exit strategy for our losers is so important.

Working With Heightened Uncertainty

Initially, you can control the size you commit to a trade, but market environments are never the same. Sometimes the market seems to fire on all cylinders, and it feels as though you can do no wrong and those are times to “go for it.” Other times (often during earnings season—the times of the year that earning reports are published) there is a greater sense of caution in the market and those heightened periods of uncertainty are the time to slow things down.

If we were to investigate the daily P&L of an emotionally intelligent trader, we would find occasions of trading actively and occasions of standing back. We would see periods of high-risk taking and periods of caution. All markets are not created equal: some bring more opportunity, some less. The self-aware trader knows when “it’s my market” and goes into opportunity-seeking mode. That same trader knows when “it’s not my market” and preserves capital.

—Dr. Brett Steenbarger Trading Psychology 2.0

In Uncertainty, Cash is a Position

We can adjust our market exposure with a reduction in our share size (risk amount) per trade, be more selective in the stocks we trade, switch to a shorter timeframe, or maybe employ a different strategy than what we typically do. We can also just sit on the sidelines in cash. Cash can be the best position if you don’t perceive an edge or insight that will help you be profitable. Cash gives us the ability to observe objectively, rather than force inferior trade setups. One of my favorite market phrases is, “It is better to be on the sidelines and wish you were in, than it is to be in the market and wish you were out.”

Fear of Missing Out (FOMO)

Before we move on, let’s discuss the Fear of Missing Out (“FOMO”). FOMO is described as anxiety caused by the belief others may have more fun or, in the markets, may make more money than you do. Those who have a plan and buy stocks properly do not experience FOMO.

It is the “Johnny-come-latelys” who read news about a company, look at the soaring price and cannot resist but to get involved. Rather than wait for a low-risk entry point, they throw caution to the wind and buy (chase) the stock higher. The fear is that a stock will soar to record highs while they do not have a position. This can be a powerful motivation to chase the stock, even after it has already experienced a large, short-term move and may in reality have little or no further upside. These are risky purchases because it is difficult to keep tight stops and limit losses if the stock reverses.

If you miss out on the first move a stock makes, then it is better to wait. Often, the stock will undergo an orderly correction (by price or through time) and then provide a low-risk opportunity to get involved. If the stock doesn’t pull back and give you a new buy point, remember this phrase “missed opportunity is better than lost money.” Embrace the JOMO (joy of missing out) because you stayed disciplined with your approach.

Contrarian Trading

We define a contrarian as someone who opposes or rejects popular opinion. In the markets, it means to trade against trends, to buy when the trend is lower and to sell when the momentum is higher. Sentiment indicators attempt to identify extreme levels where a trend may tire, so a contrarian can make a trade in the opposite direction.

As you may have guessed, I am not a contrarian trader. I believe “the trend is your friend until it bends or ends.” To trade in the direction of the trend is mathematically correct. In an uptrend, the sum of the rallies is always greater than the sum of the declines. If we buy correctly (as a move begins, and not by chasing prices after the trend is underway) and manage risk (with an appropriate trade size and a strategy to cut losses quickly), there is no reason to be “smarter” than the rest of the market.

It may be difficult to accept price action as being reasonable when stocks make big runs. It is said, “the collective intelligence of the crowd sinks to the

level of the least educated participant.” If price action makes little sense, it is not a reason to be a “contrarian” and bet against the crowd’s behavior. It is a reason to study the action more carefully on shorter timeframes and plan for a potential reversal. There is no such thing as a stock’s being “up too much” if there are more buyers. Likewise, there is no such thing as a stock’s being “down too much” if there are still sellers present.

A Brief Discussion of Stop Losses

A stop loss order is designed to protect your capital after you start a new position in a stock. As we know, risk management is always job #1. That job begins in the planning stage of the trade when you determine what your maximum risk will be on the trade. There are two common types of stop loss orders, the stop market and the stop limit. A stop market order simply says, “if the stock trades at 24.35, sell my stock at the market.” The stop limit order gives you more control of the order. It might be entered as, “stop 24.35, with a limit of 24.20.” For the stop limit, it will sell the stock as soon as the stop is triggered with a trade at 24.35 and it will continue to sell the stock down to a limit of 24.20. The placement of stop orders is discussed later in more detail.

CHAPTER 5

ANCHORED VWAP COMPONENTS AND COMPARISONS

“Get the fundamentals down and the level of everything you do will rise.”

—Michael Jordan

Chapter Objectives

1. Understand the difference between VWAP and AVWAP
2. Understand how the AVWAP is created
3. Understand similarities between AVWAP and Dollar Cost Averaging
4. Understand how to use AVWAP to achieve market goals

We can measure the VWAP and AVWAP for any financial product where price and volume data are available. The traditional VWAP is the volume weighted arithmetic mean of all trades for one day. When we change our measurement period from the start of the day, it becomes “anchored” to a user defined starting point.

The idea for a point-and-click anchoring of the VWAP is one that I had been thinking about from the first time I used the VWAP in 2003. It was in 2015 when TC2000 implemented this feature at my request. Since then, dozens of other technical analysis platforms have followed their lead and made it available on their charts. By calculating the volume weighted average price starting at an anchor point, the VWAP becomes an AVWAP (Anchored VWAP). The AVWAP calculates the cumulative and dynamic (adjusts in real time) VWAP from the anchor point forward. With the AVWAP, you can better understand the shifts between buyers and sellers that occur over all timeframes, not just from the start of a day.

The calculation and interpretation of VWAP and the AVWAP is the same regardless of the anchor point or the timeframe analyzed. In short, the Anchored VWAP is a VWAP with a specific time anchor point chosen by the trader. *If the VWAP begins at any point other than the start of a new day, it is the “VWAP anchored from” the start of the measurement, or AVWAP.*



Chart 5.1 Constructed of 2-minute candles, this chart shows the traditional daily VWAP and an AVWAP. Chart: TC2000.com

In the AVWAP calculation, each share receives equal weight. It does not assume that an institutional share traded is more important than a share traded by a retail trader; one share, one vote. ***The AVWAP averages price and volume from any point to show us who is really in control of the trend. It is a quick and easy way to identify the trend from the start of the anchor point. It keeps us on the right side of the market, “the trend is your friend.”*** The AVWAP is a technical tool that allows us to determine who is in control (buyers or sellers) from any point. It shows us how well they maintain control, or if there are signs of a trend slowdown or potential reversal.



Chart 5.2 This daily chart shows how prices respond to the AVWAP to reveal trends. Chart: TC2000.com

Regardless of timeframe, when the stock is above the AVWAP, the buyers are in control and when it is below the AVWAP, the sellers are in control. In the remainder of this book, you'll find me using the phrases "guilty until proven innocent" and "innocent until proven guilty." What I mean by them is that the benefit of the doubt should go to the direction of the trend. A trend, once established is more likely to continue than reverse. That is a tenet of technical analysis.

AVWAP: An Unbiased Analysis of Market Flow

AVWAP analysis allows us to be more discerning in our analysis and in the trades we make, because it gives us a stronger understanding of how capital flows through markets. It helps us to identify important price levels in the market where sentiment is likely to change. When we recognize these levels in advance, we can study them more closely, on shorter timeframes.

On these shorter timeframes, we look for evidence where buyers or sellers may gain an edge. We want to identify the key levels where we can plan our trade, whether entering or exiting the market, by figuring the risk/reward ratio. Then we patiently wait for price confirmation before we execute and put our money at risk. Once in a position, our job switches from analyst to risk manager.

Dollar Cost Average (DCA)

The easiest way to understand the Volume Weighted Average Price (VWAP) is to consider the investment strategy known as "Dollar Cost Averaging." The DCA strategy is to invest a fixed dollar amount at a regular interval, such as once per month. When you invest the same amount each month; whether the market is up, down, or sideways, it reduces the timing risks for longer-term investors. DCA is more about "time in the market" versus "timing the market."

If you invest \$1,000 each month into your favorite long-term stock, at the end of one year, you will have invested \$12,000 in the stock. When you decide to sell your stock, you need to report your cost basis to the IRS so they can collect their "fair share" of the profits. How do you calculate your average cost per share? Do you take the 12 separate purchase prices, add them up and divide by twelve? These may give you an approximate price, but the IRS will not like it when you give them this "halfassed" calculation when it is time to pay taxes on your big gains.

Table 5.3 shows the stock price paid for each of the 12 purchases. When you invest a constant dollar amount (\$1,000/month) and the price of the stock fluctuates, you will purchase a different number of shares each month. When the price of the stock is lower, you will purchase more shares (see month 1) and when the price is higher (see month 12) you will purchase fewer shares.

At the end of this 12-month period, you will have accumulated 209.05 shares of the stock. Your dollar cost average paid for the stock would be \$57.40 (\$12,000 divided by 209.05). In essence, \$57.40 is the Volume Weighted Average Price (VWAP) of your investment. The mathematical average, based on price alone, would be \$59.42, which is not the correct number.

Month	AMT	Price	Shares
1	1000	36	27.8
2	1000	44	22.73
3	1000	50	20
4	1000	62	16.13
5	1000	68	14.70
6	1000	63	14.87
7	1000	57	17.54
8	1000	62	16.13
9	1000	68	14.70
10	1000	67	14.93
11	1000	64	15.63
12	1000	72	13.89
12000		713//59.42	209.05//57.40

Table 5.3 This table shows how the dollar cost average is calculated.

VWAP Calculation

$$\text{VWAP} = \frac{\sum (\text{Volume} \times \text{Price})}{\sum \text{Volume}}$$

VWAP = Sum (price x volume at price/sum Total Volume)

In plain English, we multiply the price of the trade by the total number of shares traded at each price, and that number is then divided by the total number of shares traded to come up with VWAP. Fortunately, we do not have to do these calculations; they are built into any decent chart platform. **The VWAP starts at the first data point (whether it is 1-minute, 30-minutes, daily, or other period) and builds with each new trade. The more volume traded at a certain price level, the greater the weighting (and more impact) that price has on VWAP. Similarly, the larger the timeframe calculated, the less impact each new period will have on the weight.**



Chart 5.4 The appearance of the first anchor point is often represented as a "dot" as in the chart above. Chart: TC2000.com

Data Settings

When the user chooses the timeframe to study VWAP, there may be an option for how the VWAP is calculated in your charting software. To achieve the most accurate VWAP value, you want to use the shortest timeframe available without affecting the ability to see it clearly on the chart (see Chart 5.5 to see how the data can appear to be "scrunched up" on shorter timeframes where there are more candles). Unless we use tick data, which uses every transaction in the calculation, all VWAPs that do not use tick-data will be a very close approximation to the actual VWAP. For our purposes, the variances are not critical. Just remember, the shortest time increments will provide the most accurate VWAP approximation.

For intraday trading, tick data is the absolute accurate number for VWAP because it averages every single trade. Many platforms do not allow for such precise data, and some allow for intra-minute (10, 15, 30 second) price bars (or candles). For all but the most active of intraday scalpers, a 1-minute period is short enough to understand the VWAP intraday. The longer the period of price data studied, the longer timeframe you can "get away with," but it is sometimes valuable to refer to the shorter timeframe for a more accurate look at the true value.



Chart 5.5 Side by side 1-minute and 5-minute charts of the same trade data. Chart: TC2000.com

Active traders should start the day with a 1-minute timeframe for the first part of the day, and then use longer timeframes as the data gets “scrunched up” and it becomes difficult to differentiate the candles. A shorter timeframe slightly increases accuracy at new anchor points, but the longer timeframes allow more clarity of the larger picture. Shorter term timeframe traders will be the participants who will benefit the most from the intraday charts.

When considering where to set your anchor, the most common choices are to anchor from the: open (O), high (H), low (L), or close (C). The most accurate AVWAP measurement will include as much data as possible, so the OHLC/4 is best, as it is the most inclusive of the data available. This simply means the weighting of the AVWAP will not be overly influenced by the open, high, low or close, it treats them all equally.

Is the AVWAP a Moving Average?

When viewed on a chart, it is easy to confuse AVWAP with a traditional periodic (or rolling) time weighted moving average. Time is part of the calculation of the AVWAP, but it is not the typical rolling time-based method used in the calculation of a moving average, where older data drops off and is replaced with newer data.

The AVWAP is the cumulative average price, weighted by volume. The value of AVWAP changes with the continued addition of new price and volume data, from the fixed starting point of our anchor. As time progresses, the amount of data builds cumulatively and the AVWAP will move up or down. We can view this as a gauge of an emerging trend. The AVWAP is displayed as a line, and it moves up and down as time progresses, and while the AVWAP looks like a rolling period average price — the AVWAP is materially different (and more valuable) because it starts at a significant event and builds with each new data point.

Momentum and Trend versus Value

Like any indicator, the analysis of the AVWAP will have different applications to various market participants. A long momentum participant will view the positive slope of the AVWAP as confirmation that their position is working. When this occurs, they want to stay involved and possibly add to their position after pullbacks to the rising AVWAP. If the momentum holder observes prices below declining AVWAP, they will not want to take new positions and might consider a sale of their longs, or to even go short the stock.

For an institutional trader who may take weeks to fill a large buy order, they are more concerned with price and value. They will be less aggressive about buying while the stock is above AVWAP and more aggressive while the stock is below AVWAP. Their job is to purchase the shares as close to, or lower than, AVWAP. They want to buy at “discounts” to the AVWAP to help improve the average price paid.

Speed and Lag

The amount of data used in any calculation of an average affects the rate of change of that calculation. I refer to this rate of change as “speed.” All averages become slower to respond when more data is brought into the equation. The number of data points increases throughout the period studied; this typically makes the indicator lag as we average more data.

Unlike a moving average, the AVWAP does not always slow down with the addition of more time and data. The volume weighting makes it possible for the AVWAP to speed up as time progresses if there is an unusual surge in volume.

Briefly summarizing, all averages suffer from some lag as the amount of data being averaged grows. The lag becomes more significant later in the relevant time period. New data points have diminished weight and will continue to have less weight as time progresses. The longer the period averaged, the

smoother an average line will appear. **With AVWAP, however, volume is the most important factor in the calculation and a line displaying AVWAP will rapidly change shape, that is, speed up or down, as volume surges.**

In chart 5.6, notice how the VWAP “speeds up” as large volume spikes enter the market just after 12:00 p.m. and 2 p.m. The VWAP/AVWAP is unique in that the average price can experience spikes with more volume, while a time-based average would have a smoother arc.



Chart 5.6 This intraday chart (2-minute candles) shows how large volume spikes can create a quick change in the slope of the VWAP. Chart: TC2000.com

Standard Deviation and Percent Offset Bands

Sometimes you will see standard deviation bands on a chart with AVWAP (see Chart 5.7). AVWAP bands are areas plotted at standard deviation levels above and below the AVWAP line. Percent offset bands are also used for the same purpose, except they will display at a fixed percentage above or below the AVWAP. Some people choose to display this additional information to identify areas where a stock is “overbought or oversold.” This information helps time their entries and exits based on historical volatility patterns.

My preference is to not use any type of volatility band displayed over AVWAP. I prefer a cleaner look to the charts and to manage risk based on trends, not on mathematical tendencies. As with any analysis tool, if you find value in it, you should continue to use it. Do what works for you.



Chart 5.7 Daily chart with AVWAP and standard deviation bands. Chart: @Trendspider

Volume Weighted Moving Average (VWMA)

Do not confuse a VWMA with the VWAP or AVWAP. A VWMA is a periodic (time-based) moving average where more weight is given to bars with heavy volume and less emphasis on price points where less volume is traded. While VWMA is similar to VWAP and AVWAP in that it takes the volume of trading into consideration, the VMWA is fundamentally different from VWAP and AVWAP because it is a rolling average that continually drops off older data as it adds in newer data. The VWMA is not a focus of this material because it is a rolling average. We are interested in the measurement of supply and demand forces from a specific time, not an average period. A rolling time-based average ruins our entire reason for anchoring from a specific point.



Chart 5.8 The daily chart shows the almost indistinguishable difference between a simple moving average and the volume weighted moving averages. Chart: TC2000.com

PART II
USING AVWAP

CHAPTER 1

STRATEGY OVERVIEW

“The trend is your friend.”

—Martin Zweig

Like many useful concepts, AVWAP is simple. It can be over-complicated by people who try to be “smarter” than everyone else, rather than simply focus on making money in the markets. Do not confuse simple with ineffective. I wrote this book as an easy-to-understand manual on how to use this dynamic analysis tool for better stock selection, timing entries, risk management, and exit techniques. If you are interested in sifting through academic studies for further information about VWAP, you can find some of these studies in the bibliography. Trust me, some of them are dense.

I hope you can profit from these strategies and use them to create and fine-tune strategies of your own. If you follow my work on Twitter (@alphatrends), you know I never suggest anyone blindly buy or sell a stock just because someone else (including myself) suggested it as a buy or sell. If you buy a stock, it should mean you did your own analysis and you know where you will place your stop to limit losses if you are wrong. It is your money, so take responsibility for it.

It doesn’t matter where you find an idea. Once you put your money into it, it means that it makes sense to you, and you must accept responsibility for the outcome. If you constantly ask others what they think you should do with your money, you probably shouldn’t be trading. I hope this book will help you to become self-sufficient and make your own trade decisions. It is a great feeling to have the confidence in your analysis so that you can spend more time working on yourself (independent thinking and discipline) and your strategies than listening to the opinions of others.

NOTE: THIS BOOK USES A TREND-FOLLOWING APPROACH. Trend-following is exactly as it sounds: we look to enter an established trend at a low-risk point and hold the stock until the trend slows or reverses. In many of the strategy examples we examine momentum/trend trades.

Remember These Principles

Limit Losses

Most of the examples in this book are trades that would have worked out. The lesson is to look for the right setups and then manage risk. The losing trades shown in this book (5-10% of the total) will all have one thing in common—small losses. Losing trades are part of the business, and how you handle them can distinguish between success or failure in the markets.

Focus on Price

I often say, “only price pays.” People often misunderstand that statement and think I consider only price action and ignore all other information when I analyze a stock. Nothing could be further from the truth. The markets are an auction process and prices alone tell us the price levels or ranges where business took place. Current price simply tells us the present value assigned by all market participants. Price alone does not reveal other significant pieces of the complicated market puzzle. At the end of the day, price is the scorecard. As my friend Jeff Cooper says, “Price is the final arbiter.”

Pay Attention to Multiple Timeframes

One of the biggest issues with many books about the market is that they are written with a single timeframe dimension. They are all written for either investors, swing traders, or day traders. This material explains how to use the AVWAP regardless of your timeframe. You will see examples for many timeframes, and you will learn how to combine the timeframes together (multiple timeframe analysis) for better timing accuracy.

Recognize That Markets Are Fractal

We do not need to understand mathematics or geometry to recognize fractals. If we take the time to carefully observe and understand human nature and how stock market participants interact, we will see similar patterns in different markets and on various timeframes. **All the concepts of trend alignment and AVWAPs are transferable to other timeframes because of the fractal nature of chart formations.**

The fractal nature of markets allows short-term traders to experience, on smaller timeframes, what longer-term investors may take years to observe. This allows the shorter-term participant to learn market structure more rapidly. If you have a disdain for short-term trading, try to think of it as an opportunity to shorten your learning curve even if you do not participate in that timeframe. Shorter-term traders should also learn how shorter-term trends fit together in a longer-term market move. This knowledge can help you hold your winners longer.

Recognition of this fractal tendency is key to understanding why we can apply the same analysis techniques to completely different markets and on any timeframe. We only need to learn the basics in one timeframe, and we can apply those principles to all timeframes. The most accurate price analysis comes from a recognition of the interplay of various timeframes together for a more complete understanding of market structure.

Don’t Get Hung Up on Timeframe

My personal preferred timeframe in the market is from a few days to several weeks. Most of the examples will be that timeframe. Please do not get hung up

on the timeframe shown on any of the charts. It is the concept that is most important. Many of the examples do not show the timeframe because it is unnecessary to understand the point on the chart.

You Can be the “Smart Money”

We often hear that “smart money” is buying or selling some stock or doing something we should strive to do in the market. We are meant to feel inferior to this mysterious group of participants. Here is the truth, smart money doesn’t mean institutional money or a roomful of PhDs. It only means the group who controls the trend (meaning that they are on the correct side of the trend). It is a mix of institutions and retail traders; the same group that makes up the “dumb money” in the markets—the people on the wrong side of a trend. You can be the smart money if you understand market structure and use the best tools properly. AVWAP is one of the most important tools you need to understand to be in the smart money camp.

Create Your Own Process

At the 1969 Woodstock Festival, Jimi Hendrix performed what has become one of the most recognized versions of the “Star-Spangled Banner.” Jimi Hendrix most likely looked at the same sheet music that Francis Scott Key wrote 155 years earlier, but what Jimi played versus what Francis Scott wrote was much different. As an artist, Jimi “made the song his own.”

This book is the “sheet music” for a market approach. You can try to play it note for note in the market, and probably do well with it. If you really want to stand out and be a star in the markets, you will take this information for what I intended it to be: a guide. I wrote this book for you, as a “market artist,” to use as part of your method in the creation of a masterpiece of your own, your trading process.

No one knows what will happen in the future. If we anticipate all potential outcomes, we will never be surprised and we will be ready for anything the market gives us. An unemotional plan allows us to prepare for all scenarios in case our primary thesis is proven wrong. Part of our trade plan needs to account for the times price action moves against our trade position. We must be able to objectively cut an unprofitable trade before it grows into a large loss that is more difficult to recover from.

Work with Momentum

The goal of momentum trades is to buy stocks as they rise, sell them when they look to have peaked, and to avoid the subsequent selloff. If the trader can move from one winning stock to another, they can leverage time to keep their equity in stocks when trends are working to their advantage. Momentum trading is about “buying high and selling higher.” Of course, we know it doesn’t mean that you should chase stocks that are moving higher but, rather to buy them as their momentum begins so then we can manage risk properly.

To emphasize concepts, and not get hung up on the names of the companies, I have removed all the symbols from the charts. ***The names of market winners and losers will change with different market cycles, the laws of supply and demand do not.***



Chart 1.1 Daily chart with traditional breakout purchases and momentum purchases. Chart: TC2000.com

Chart 1.1 shows where low-risk momentum purchases are made (green arrows) as the stock regains upward price momentum. These purchases allow you to be in a position of strength from the start, rather than chasing prices higher, which increases risk levels. Put another way, if you wait to buy until the price exceeds (breakout) a prior high, you miss the upward momentum and risk the possibility that the new high fails and turns into the start of a downward trend.

AVWAP Subjectivity

Where to anchor the AVWAP is subjective. I try to remove some of that subjectivity with the use of concrete rules and examples. I packed this book with charts to reinforce the written word. After all, technical analysis is about charts. Remember, no tool can provide the most important ingredients for success: hard work, discipline (with a willingness to be flexible), and risk management. That is up to you.

The AVWAP is not a magic bullet, but it will amaze you how often the AVWAP from a specific event becomes the actual price turning point when there is little or no other technical data to indicate a that change of trend should have occurred. *My experience has convinced me that the AVWAP is the “most powerful” indicator. Whether you use it on a stand-alone basis for your analysis or as a complement to your current approach, I hope it is valuable to you too.*

No method of picking stocks is without flaw. Fundamental analysis or technical analysis will not assure success every time you put your money at risk. If you expect consistent success by analyzing fundamentals (“fundamental analysis”), you cannot buy stocks based solely on any one fundamental factor, such as a Price to Earnings Ratio. Similarly, when using other forms of technical analysis, you need to consider more than a single historical trading pattern, such as a “Head and Shoulder,” to be a skilled trader.

People who have learned to analyze a company based solely on its financial performance are often unfamiliar with, or unsuccessful at, technical analysis because they expect it to be formulaic. They confuse the “art” of interpretation and use of price study with the science of what they have read concerning “cookie cutter” patterns.

The strategies in this section are the ones that I have developed over my 30+ years of trading and continue to use each day. They are not the only ways to use AVWAP.

What About Extended Hours Trading?

This book is focused on the regular trading hours for U.S. equities, which are 9:30 a.m. to 4:00 p.m. Eastern Standard Time. The opportunity does exist to trade stocks in the pre-market as early as 8 a.m. and in the post-market as late as 8 p.m. For most stocks, volume is much lighter than in the regular trading hours and that creates liquidity issues. Trades placed outside traditional trading hours have a unique set of risks and, as such, are not for everyone.

There are times when the pre-market hours can get busy and large moves are often made in some stocks which may be issuing earnings reports or reporting other news. I typically do not get involved in these stocks. I seldom enter new positions in the pre-market but there are opportunities for those who are attracted to the very fast moves that can occur in these hours. That being said, If I am holding a stock, I do like to take profits when there are large moves in the pre-market. It is all about your personality and your preferences.

Post-market moves are more common for the stocks of bigger companies, especially during earnings season when many companies report their quarterly results after the 4 p.m close. This can affect some of the largest stocks in existence and the trading can be very liquid and volatile.

If you are prone to chasing stocks or unable to control your emotional urges, it will be difficult for you to trade successfully in the extended hours. Only you will know if it makes sense for your personality to trade during the extended hours sessions. Until you know, keep your share size small in extended trade hours.

CHAPTER 2

SUPPORT AND RESISTANCE

“Never turn a trade into an investment or an investment into a trade.”

—Barry Ritholtz

Chapter Objectives

1. Define Support and identify levels of Support on a chart
2. Understand Support as a level of demand
3. Define Resistance and identify levels of Resistance on a chart
4. Understand Resistance as a level of supply
5. Identify “levels of interest” on a chart
6. Use AWWAP to analyze levels of Support and Resistance
7. Use AWWAP slope to determine if buyers or sellers are in control of the action

The continual struggle for control between the bulls and bears makes the stock market a fascinating study of the basic laws of supply and demand. Support and Resistance levels are where we understand how markets move.

The goal of a trader is to study how a stock reacts to the ever-present supply and demand battles. When a trend exerts strength, in either direction, we must be ready to be on the correct side so we can take part in the directional moves that follow.

AVWAPs can reveal order in the market where none appears from traditional technical analysis tools. This is how I first recognized the value of the AWWAP when I noticed it in 2003. If you do not use AWWAP in your analysis, you cannot see important levels of Support and Resistance that others are using successfully to make more money.

The simplest and most effective use of the AWWAP is to find “hidden” levels of Support and Resistance. How do they hide? The answer is simple: you can’t see them if you don’t place the AWWAP on the chart. Once we identify Support and Resistance with the AWWAP, then we can use those levels as the basis of our trade plan.

When we buy or sell a stock as it emerges from the battlegrounds of Support and Resistance levels, we can also control risk easily and objectively by placing stops outside of the consolidation range after our entry into a new position. Therefore, it is essential to understand the concepts of Support and Resistance in order to identify where to place the stop.

What is Support?

Support in the markets, or an individual stock, is an area where prices drop and there is enough buying interest (demand) to overwhelm selling (supply) and prices level out where they find Support. Look at the thick green line in Chart 2.1. Temporary price equilibrium after a pullback is known as Support. This is a price range rather than a precise price point. This tendency reveals itself more in longer timeframes, where ranges are typically larger.



Chart 2.1 Traditional (non-AVWAP) Support levels show as a horizontal area on a chart where buyers Support the price and it cannot drop. Chart: TC2000.com

Support areas form as various participants feel compelled to buy in the same approximate area. The stock becomes more neutral or “trendless” as it builds up enough pent-up energy from buyers and sellers for the next trend to emerge. During a transition from a market controlled by supply to control by demand, sellers become less aggressive and buyers become more assertive with their bids.

For example, participants with an open short position can be motivated to cover (buy back) their positions profitably. Long holders who want to add to their positions perceive value, which induces them to place bids. This level of value at Support might also motivate sidelined cash to get involved. The collective action of participants at these price levels results in less supply and more demand, which halts downward price activity and provides support for the stock. This is why you should think of Support as a demand area.

What is Resistance?

Similar to Support, Resistance is not a precise level, it is an “area.” It is common for Support and Resistance to form a loose range.

Think of Resistance as an area of supply. Resistance levels halt an upward price move, at least temporarily and is the opposite of Support. At Resistance sellers provide enough pressure (supply) to overwhelm the buying (demand) and prices “resist” going higher. Buyers become less aggressive, and sellers become more aggressive.

The formation of Resistance is a transition from a demand controlled market to a supply controlled market (shown with the thick red line on Chart 2.2). Resistance levels can be areas where three things occur: longs will exit, buyers will slow their purchases, and shorts will consider entry.



Chart 2.2 Traditional (non-AVWAP) Resistance shows as a horizontal area on the chart where supply overwhelms demand and prices "resist" going higher. Chart: TC2000.com

How do We Use Support and Resistance?

Potential. Add this word to your vocabulary. You will often read phrases like "The market has support at xxx." Most of the time "xxx" refers to a price area below where the current price resides. It is also common to hear this about a prior level of Resistance, "There is strong resistance at xxx." The Resistance levels refer to areas of prior price consolidation areas above current price levels.

No one knows where true Support and Resistance lie until after the fact. Until a stock bounces from a prior consolidation area, the short-term consolidation is simply a potential Support or Resistance level. I like to call them a "level of interest." Stocks often continue along their current trajectory longer than people expect and through a perceived level of Support or Resistance. This can confuse participants who try to time a reversal.

Here are two phrases to remember if you get burned with an entry at unproven Support and Resistance levels.

- Fear knows no Support
- Greed knows no Resistance

Market Psychology: Levels of Interest

It is best to not consider a potential level of Support or Resistance to be an automatic place to do business, but rather an area where you should look for evidence that confirms or refutes your thesis.

How do we find evidence? Examine the level of interest on a shorter-term timeframe and look for a price area where you expect something will happen—typically a reversal or breakout. This is the cornerstone of the concept of multiple timeframe analysis. Gather evidence, observe objectively, and patiently wait for the trade opportunity to reveal itself in a low-risk way before you commit your hard-earned money to a risk position.

Every television detective says a criminal always returns to the scene of the crime. This is often true in the markets, which will often revisit and test the prior consolidation (Support or Resistance) zone. When we look for a prior level of interest to become Support or Resistance, what we really look for is for that area to transform into an area where price is reevaluated by enough participants to become a place where we can make a low-risk, high-probability entry. You only want to make a stock purchase once you have actual evidence of buyers stepping in and regaining control. Never buy blindly at a level on the chart.

Our mission is to anticipate areas (levels of interest) where the buying or selling may become significant enough to halt a price advance (Resistance) or halt a decline (Support). After we identify levels of interest, some people place a bid in that area and hope it does, in fact, become Support. My preference is to use that area as a place to drill down the analysis to a shorter timeframe to look for actual evidence that the buyers are gaining control. Don't buy the dip, buy strength after the dip. Once that evidence is present, the next step is to plan a trade based on the perceived risk relative to the reward potential. The focus should always be risk management to assure any loss taken is small.

The arrows in the charts below show bullish (green) and bearish (red) touches of the AVWAP.



Charts 2.3 and 2.4 Show how the Anchored VWAP can act as a level of Support in an uptrend and Resistance in a downtrend. Charts: @TrendSpider

Notice the direction of the AVWAP is more important than an occasional piercing of the AVWAP. One of these charts is constructed of daily data and the other with 15-minute data. Regardless of timeframe, the principles are the same.

How Does AVWAP Play Into Support & Resistance?

The AVWAP helps us to determine:

- How the market digests a price move
- Whether the market accepts or rejects new price activity from the onset of a new trend

Trend and momentum traders want to be buyers when the AVWAP is increasing and want to be sellers when AVWAP is decreasing. In a trending market, prices stay above an up-sloping AVWAP, and in a decline, prices stay below a descending AVWAP.



Chart 2.5 Buyers are in control of the stock while it is above a rising AVWAP and sellers are in control while prices are below a declining AVWAP. Chart: TC2000.com

Chart 2.5 shows buyers in control above the AVWAP and sellers in control below it. If buyers show up on pullbacks to a rising AVWAP (1), on Chart 2.5, there is a continued appetite for the stock, which makes it more likely the stock will continue higher. Those are the stocks we want to own. When prices drop below AVWAP (2), it reveals less demand and we do not want to make new purchases. The lack of Support for the stock also tells us to be on our guard for potential reversals and we should shift from considering new purchases to managing our risks on any open position.

Let's first look at an example of Support and Resistance with VWAP for one day (please note, the same concepts apply to all timeframes). When the stock is in a trend day (that is, trending up or down during a day), it is likely to finish near the high (long) or low (short) of the day.

Two examples in charts 2.6 & 2.7 show one-minute charts for one day. The chart on the left shows price action alone, and the one on the right shows price along with the daily VWAP, which starts from the first minute of trading. A trader can observe Support and Resistance at VWAP/AVWAP levels in all timeframes, from the shortest intraday charts to multiple years.

The only difference between the two charts is the addition of the daily VWAP to the one on the right. This stock gapped higher (1) and immediately found supply from sellers. This drove the price lower (2). After the first few minutes of trading, the buyers regained control as the stock traded back above the daily VWAP (3) just before 10 a.m. This early shakeout action often precedes a continuation of the direction of the original gap. Notice how two subsequent tests of the VWAP also found demand (Support) from buyers (4 and 5). There are no other technical tools which would have led you to think buyers would emerge where the two blue arrows are located. Without an understanding of the proper use of the VWAP, you would never be able to see that. In fact, there is a trend upward over the relevant timeframe. Without the VWAP you would think that the price was entering a downward trend when the tool shows that it is more likely that buyers will be upping their purchases (4 and 5).



Charts 2.6 & 2.7 These one-minute charts show the same stock without and with the VWAP. Charts: TC2000.com



Chart 2.8 and 2.9 Compare these 5-minute charts. The addition of the VWAP to Chart 2.9 on the right adds a visual dimension to the stock's pricing activity which makes trends easier to recognize. Charts: TC2000.com

The VWAP and AVWAP can reveal important levels of buyer and seller interest which do not show with any other analysis method. In the charts above, we see how the addition of VWAP to the chart can show us "hidden" levels of Resistance.

Chart 2.8 shows price action only while Chart 2.9 shows price along with the daily VWAP. Notice how the stock gapped lower on the day (1) and stayed below the declining VWAP throughout the session. When the slope of the VWAP is lower, it is best to stay away from the long side (that is, not to buy or hold onto shares). In fact, with the example above, it would have made sense to short the stock just before 10:45 a.m. when it rallied to the declining VWAP (2) and then resumed its decline. Without the VWAP, it would have been much more difficult to identify where Resistance might be found. The development of the VWAP showed an objective measure of trend activity to compare price to as it unfolds.

Market Psychology: Support and Resistance

Consider Support and Resistance areas as places where a bounce might occur, but look for other confirmations before making a purchase. Our job is to anticipate price scenarios, not predict them.

Once we identify a key level of Support or Resistance, we wait for price confirmation (prices begin to move higher) on a shorter timeframe before putting hard earned money at risk.

We want to be involved in an emerging move at the onset, not after a trend campaign is well underway and the risks are higher. Do not chase price action. If you miss out, it exposes you to too much risk.

Be aware that the more obvious a level seems to be, the more likely it is that other traders will also know that level and they will use it as an area for a stop loss or to exit a portion of their position. This can make the obvious level a place where failed moves are likely, so be careful with stops in these areas.

We want to anticipate whether a price zone will be a level where a breakout or reversal is likely to occur. To do that we try to understand at what price zone enough participants will get involved to shift the balance of supply and demand. The AVWAP allows us the ability to better find this potential price zone because it allows us to compare the instantaneous prices with the trending price.

When you identify potential levels of Support and Resistance consider:

- Where will longs be forced to fearfully liquidate before they sustain a larger loss?
- Where will short sellers become nervous about growing losses and become motivated to cover their bearish bets? This could lead to a short squeeze.
- Where will sidelined cash be unable to resist getting involved?

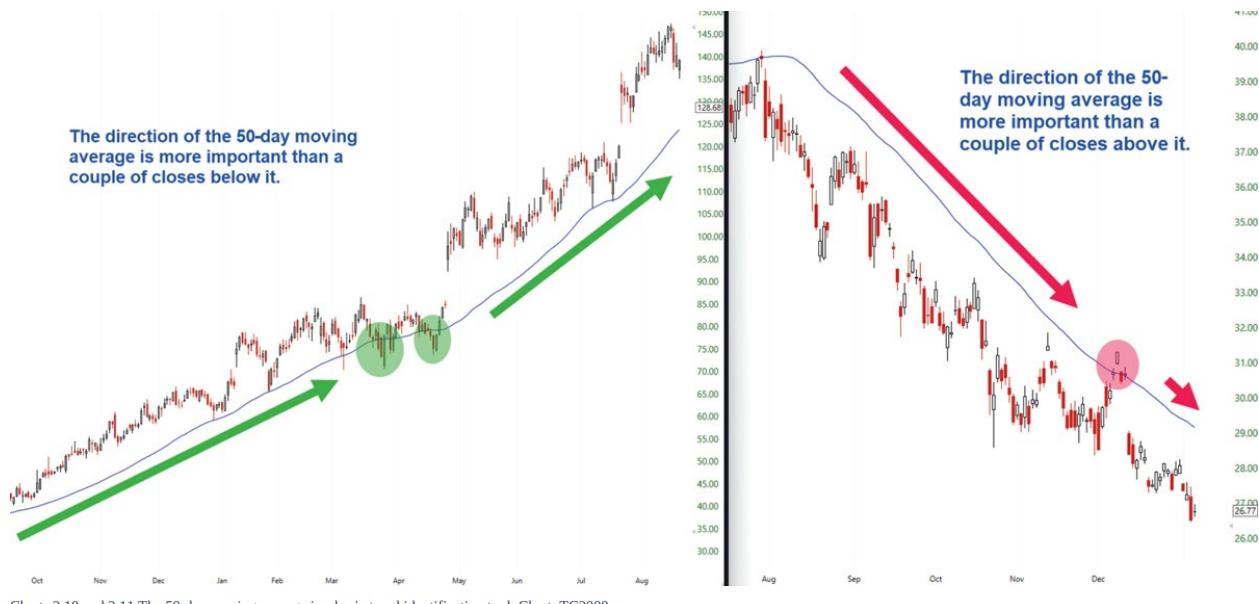
Market Psychology: Self-Reinforcing Role

The natural question is, why do certain price areas attract enough buyers and sellers to provide Support or Resistance to price movement? Support and Resistance areas are often “self-fulfilling” in nature. When you first learn about technical analysis, you likely heard something like, the bulls live above the 50-day moving average (DMA) and bears live below the 50-DMA.

Well, guess what? Countless market participants share this rule of thumb. If enough of them believe it to be true, they will perceive a value opportunity as a stock pulls back towards the 50-DMA and it will play out in this way. For example:

- Short sellers who may have sold higher as the stock was extended (stretched far above the 50-DMA) stop selling and may buy to cover their bets at this perceived level of value.
- Institutions that own a lot of the stock will sell some of it as it becomes “extended” from the 50-DMA in order to reduce their position, and then rebid for those shares at lower prices as the stock drops back down toward the 50-DMA. This allows them to sell some shares at “high” prices relative to the 50-DMA and replace them at cheaper prices. As they replace the quantity of shares they sold (at higher at the prices) with shares (at the now-lower prices) this could help to create Support at the 50-DMA. The stability from their purchases encourages others to participate at the 50-DMA which helps further strengthen Support.
- Holders of cash who are standing on the sidelines might now come in to purchase the stock at what they believe to be a bargain price.

The collective action of these participants results in diminished supply and increased demand. That is how Support gets formed. In the charts below, the emphasis is on the direction of the significant moving averages.



Charts 2.10 and 2.11 The 50-day moving average is a basic trend identification tool. Chart: TC2000.com

For charts 2.10 & 2.11 the daily chart on the left shows a stock in an uptrend, but note that the price drops below the 50-DMA twice. This shows that the 50-DMA is an area of interest for further study, not necessarily a point where you should automatically buy or sell. Likewise, the chart on the right shows the declining 50-DMA as a reason not to trust rally attempts in a downtrend. As we will see later, we will make a shorter-term analysis using the 5-DMA in the same way.

Of course, the 50-DMA is just one example of where and how a price level may attract enough activity to bring about a shift in supply and demand and create a level of Support or Resistance. The supply and demand battles for control of a trend can, and often do, occur at other levels of technical significance you may be familiar with, such as Fibonacci retracement or extension levels, a prior consolidation area, or widely watched moving averages. Our focus here is AVWAP, which complements all the other analysis techniques.

It is also important to recognize that if one or more other technical factors show up in the same general area, it can reinforce that area's level of significance because more participants may be forming their decision to buy, sell, or stand aside in the same area, but each for different reasons. The more people coming to the same price conclusion, in the same area, increases the likelihood it will become Support or Resistance.

How Would You Feel?

Beyond mere recognition of Support and Resistance zones, true market understanding comes from anticipation of how other participants will act in different scenarios. When you look at a chart, try to imagine how you would feel, and possibly act, if you were long, short, or in cash.

If Support breaks, who will buy, sell, or cover? How about when Resistance is broken? Understand the psychology of why Support and Resistance develop, and you will have a significant advantage over most participants who simply look at patterns.

Going Deeper: Slope of the AWWAP

One of the most common questions about the volume of trading activity is whether the volume was in buying or selling? Well, of course, it is both. For every buyer, there is a seller and vice versa. What we really want to know is who is more aggressive and who is in control, the buyers or sellers? The direction and slope of the AWWAP allows us to answer that question easily and accurately.

AWWAP allows us to quantify who has control at any point, buyers or sellers. The Chart 2.12 demonstrates how to determine the directional bias by the slope of the AWWAP. The slope of AWWAP (higher or lower) shows whether the dollar average paid per share for the period studied is rising or declining. When the slope rises, buyers are in control from the anchor point. When the direction of the AWWAP is lower, we know sellers are in control from the anchor point.

The direction and rate of change of the AWWAP is often more important than simply being above or below it. The steeper the slope of AWWAP, the more aggressive the trend and higher the likelihood the AWWAP will act as Support on pullbacks and the stock will experience a bounce. The AWWAP can be the reason Support is found as sellers become less aggressive and buyers place bids closer to "fair value." The AWWAP becomes and reinforces Support levels. The reverse of this takes place when the trend is in the other direction; the AWWAP becomes and reinforces Resistance levels as sellers become more aggressive relative to buyers. We see this below in chart 2.12.



Chart 2.12 Always be aware of the location of price in relation to the direction and slope of AWWAP. Chart: TC2000.com

As the slope of the AWWAP flattens out, it shows that there is greater market acceptance of the value and the market likely needs more time (and perhaps a price shakeout) before the original trend resumes.

When a flat AWWAP gets tested more frequently, it is more likely to flip from Support to Resistance and Resistance to Support. The goal is to use that information to identify low risk, high probability trades.

Rising AWWAP

A stock with a rising AVWAP shows that buyers are more aggressive than sellers during the timeframe in question. The market must rotate to higher prices in search of liquidity (supply) to satisfy the quantity of buy orders (demand). In Chart 2.13 we set the anchor to the gap on the 27th on this 65-minute timeframe (1). Notice how the AVWAP provided support (green arrows) as buyers stepped up their purchases near the AVWAP on the pullbacks in its uptrend.



Chart 2.13 The rising AVWAP often acts as Support in an uptrend. Chart: TC2000.com

Chart 2.14 emphasizes why one should not automatically change from bullish to bearish on a short-term break of the VWAP/AVWAP.

As evidence that the market is reversing an advance, the direction of the VWAP will typically flatten out, prices will cross below, get trapped under the VWAP, and then decline. Earlier in the day, or during whatever the timeframe being studied, the slope of the VWAP is typically at its most extreme level because the number of data periods being averaged is lower. As the day progresses, and each transaction has less impact on the average, it is natural to see the slope of the VWAP become less pronounced.



It is not unusual for a strong stock to briefly dip below the rising VWAP before buyers regain control.

Chart 2.14 When the direction of the daily VWAP is higher, be careful not to get bearish on the first cross of price below. Chart: TC2000.com

GENERAL NOTE: All moving averages should be used as a reference point to compare price trends. They should not be considered as automatic levels to do business when they are touched, but as a reason to observe the price action on a shorter-term timeframe, where we formulate a plan. We generally give the benefit of doubt to buyers when the 50-DMA trend is higher, and to sellers when the slope is lower.

Takeaways on Rising AVWAP:

- When the direction of the AVWAP is trending higher, we should have a long bias and avoid new short positions.
- The increase in price shows on the chart as a bullish trend above the rising AVWAP. Consider these stocks innocent until proven guilty during the timeframe that this occurs.
- Buyers should seek opportunities to buy after pullbacks toward the AVWAP, but first wait for evidence of actual support. If there is, then prices will likely rise and we have a logical place for our stop.
- The first one or two touches of an important AVWAP are more likely to experience a strong bounce. This tendency occurs as sidelined buyers, who thought they missed the move, rush in to purchase shares.

- As the life of the trend stretches out, the bounces occur with less enthusiasm, which raises our level of caution and our defensive posture. When a bounce is less vigorous it's because buyers are a less motivated source of demand; thus, the trend more vulnerable to failure.
- As with any level of Support, the more times and more frequently Support gets tested without a bounce away from the AVWAP, the more likely it is to fail in the near-term.

Declining AVWAP

When a stock is below a declining AVWAP, it tells us that sellers are more motivated than buyers. Transactions occur at lower prices, which show on a chart as a bearish trend, below the declining AVWAP.

In a decline, the market does not accept the supply at current levels, so prices fall to levels where there is sufficient demand to absorb the supply. When the AVWAP is in a downtrend, the stance to take is a short bias and use caution on open long positions. Consider these stocks guilty until proven innocent on the timeframe where this occurs.

If you have a long position that you want to get out of, rallies up to the AVWAP are often an excellent point to exit before the stock heads back lower. If you want to enter a short position, you can start new positions as prices fall away from the declining AVWAP, with a stop above the most recent and relevant lower-high for your timeframe.

Chart 2.15 shows how sellers will provide Resistance at a declining AVWAP. We set the initial anchor to the start of the large move lower, which began near \$60 per share (1). Notice how the sellers showed up on the touches of the AVWAP (red arrows at 3, 5, 7, and 9) as the prices continued their decline. Sellers have picked up momentum after tests of the AVWAP from \$60 (1).

When prices fall away from the declining AVWAP, we sell short (green circles) in expectation that the trend will continue lower. If the stock reverses back up through the AVWAP, we want to have a stop in place to minimize any loss. This stop is placed above the recent lower-high, represented with red arrows (3,5,7,9). For instance, if we sell (2) our stop would go above the previous high (3), and so on as the stock continues its decline.

It is common for large institutions to set multi-week AVWAP programs at the start of an event. Those programs become more aggressive as prices approach the AVWAP from the start of the event and provide overwhelming supply which forms resistance.



Chart 2.15 shows approximately one-month of data using 65-minute candles. Chart: TC2000.com

The daily VWAP is shown on Chart 2.16. When the direction of the VWAP is lower, be careful not to get bullish on the first crossing of price above the

VWAP (blue circle). For the market to reverse a decline, the direction of the VWAP will first flatten out, prices will cross above and then stay above the VWAP.

Takeaways on Declining AVWAP

- When the direction of the AVWAP is lower, we should have a bias toward short positions and avoid new long positions.
- The decrease in prices appears on the chart as a bearish trend below the declining AVWAP. Consider these stocks guilty until proven innocent on the timeframe this occurs.
- Short sellers should seek opportunities to sell after the price rallies up to the AVWAP, finds Resistance and then falls.
- The first one or two touches of an important AVWAP are more likely to experience a quick selloff which makes them great candidates for a short sale.
- As the life of the trend stretches out, the declines occur with less vigor, which raises our level of caution and our defensive posture towards new short sales.
- As with any level of Resistance, the more times and more frequently Resistance gets tested without a decline in price, the more likely it is to fail in the near term.



Chart 2.16 2-minute timeframe chart of a stock for one day. Be careful not to get bullish on the first cross of VWAP or AVWAP. Chart: TC2000.com

Oscillate Above and Below AVWAP

When you observe a flat AVWAP with prices crossing above and below it, my advice is to avoid the stock on that timeframe. This action is neutral and there is no edge in being long or short.

Rather than complain about choppy action or lack of opportunity, we should interpret the message of the market as meaning one of three things to us; cash is a good position for now, find another market or stock to trade, or switch to a different timeframe to find a better opportunity to get involved.

It is good to recognize these stocks. The lack of current opportunity frees up our time to focus on more actionable setups. Chart 2.17 shows multiple crosses

above and below the AVWAP.

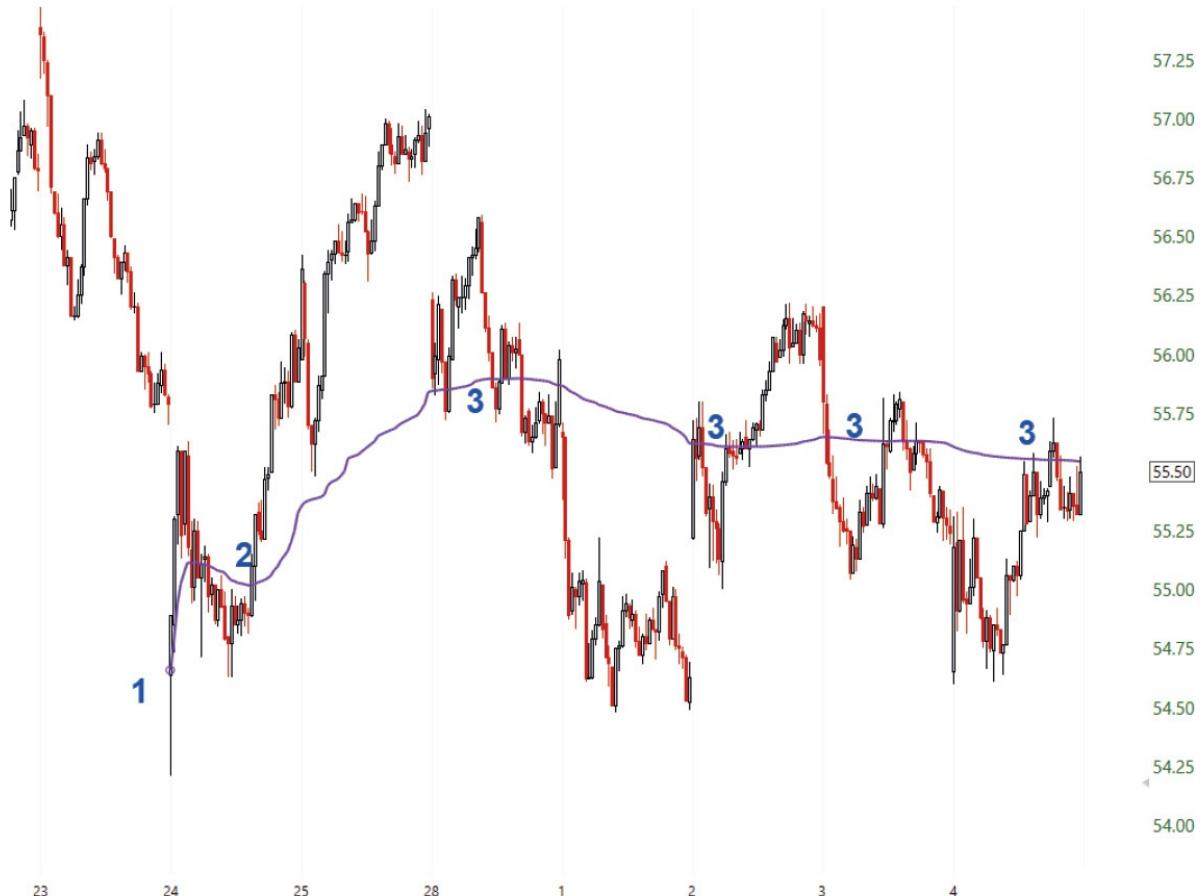


Chart 2.17 Crosses above and below AVWAP represent indecision. Chart: TC2000.com

In Chart 2.17 we anchored the AVWAP to an important low (1) on the stock above. Initially, the buyers regained control (2), but as the stock traded above and below the AVWAP (3). The stock needed more time to let the buyers and sellers battle it out for control. Trend traders should avoid these stocks until there is greater clarity of who has control.

Once again, it is important to realize that these concepts are the same for stocks of all prices and on all timeframes. Do not focus on the price or the specific timeframe on any of the charts shown.

Market Psychology: Institutions' Role

For an institutional trader who wants to buy a large amount of a stock in an uptrend, it makes sense to place bids for the stock as it pulls back down to AVWAP since it is an opportunity for them to scoop up shares at the “fair value” relative to the open and the price they might expect it to close.

Risk Management

When we anticipate a level of interest which has the potential to become Support or Resistance, it becomes our job to observe that area on a shorter timeframe for evidence of whether it is the buyers or sellers that are gaining control.

The lowest risk-trades are the ones where we have a clear plan in advance. A clear plan anticipates an area of transition where we observe the action on a shorter-term timeframe before we get involved. Some of the most common trade mistakes occur from reactive FOMO decisions.

KEY TAKEAWAYS

- The concepts of Support and Resistance apply to all timeframes.
- AVWAPs can reveal order in the market that traditional technical analysis tools cannot.
- The simplest and most effective use of the AVWAP is to find “hidden” levels of Support and Resistance.
- Unlike the more common Support and Resistance levels which are seen as horizontal price consolidations, the Support and Resistance levels of an AVWAP are dynamic. They adjust with each trade.
- AVWAP allows us to quantify who has control from any point, buyers or sellers.
- The slope of the AVWAP easily identifies directional momentum. When it rises, buyers are in control from the start of the anchor. Conversely, if the slope falls, sellers are in control from the start of the anchor.
- Support and Resistance areas have a self-reinforcing role, which makes the psychology of the participants’ motivations important to understand.
- We only know Support and Resistance levels in hindsight. They are “levels of interest” until confirmed by subsequent price action.
- Don’t buy the dip, buy strength after the dip.

CHAPTER 3

AVWAP ENTRY AND EXIT TECHNIQUES

"You've got to know when to hold'em, know when to fold'em, Know when to walk away, and know when to run."

—Kenny Rogers

Chapter Objectives

1. Understand two options for entry:
 - a. Option A-buy the touch of AVWAP
 - b. Option B-buy strength or sell short after the touch (momentum)
2. How to decide which entry is correct for you
3. Understand how Support becomes Resistance and vice-versa
4. Understand Support and Resistance failures and how to trade on these reversals

Traders should use the AVWAP's ability to identify levels of Support or Resistance to their advantage. One way to do that is to wait for a test of an AVWAP level and to purchase the stock on the first touch of the AVWAP and hope that it holds. The other option is to observe the action around the AVWAP and treat it as a "level of interest" on a shorter timeframe.

If your choice is to observe, the next step is to wait for evidence that the buyers are serious about their actions and will defend AVWAP. Once it is clear the stock has found Support or Resistance at the AVWAP, we can enter the stock and place a stop. Now we will explore both options in more detail.

Option A: Buy the Touch

Purchase (or sell short) just as the stock touches AVWAP. This is not my preference as I am more risk averse and there is no assurance the stock will bounce from the AVWAP.

Paul Levine, PhD was a pioneer in AVWAP analysis and gave the term "porosity" to describe how AVWAPs are general areas, not precise numbers. That said, there are times when a stock will touch the AVWAP to the penny and reverse immediately.

When a stock is far beyond the AVWAP (Point 2 in Chart 3.1), I view this intuitively, while others may use standard deviation bands. Chart 3.0 shows the AVWAP as well as standard deviation bands.

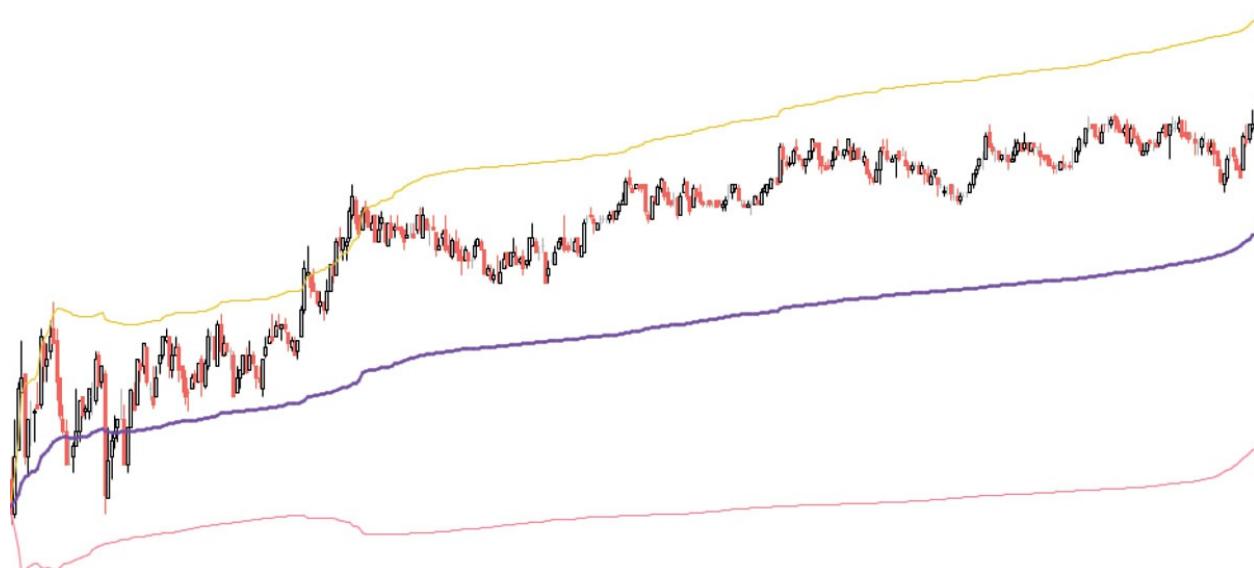


Chart 3.0 This stock shows the standard AVWAP (purple) along with a 2 standard deviation band of the AVWAP. Chart: ThinkorSwim.com

As always, any trade setup is more likely to be successful when trends are aligned with longer timeframes of the stock and the trend of the overall market. If you buy at each touch of AVWAP, it is sometimes possible to purchase at the exact turning point, but you run the risk the stock may continue lower (Point 4 in Chart 3.1). If the stock does not bounce from the AVWAP, it's difficult to find a price-based level for your stop because there is often a lack of a lower-high nearby to place the stop under.

The stock in Chart 3.1 made an important near-term low on October 24th (1). That is where we set our anchor. Note, that large distance between price and the AVWAP (2). When prices extend far from the AVWAP, new purchases are considered to be riskier.

On November 2, the stock pulled back to the AVWAP (3) from that low and bounced precisely from that level. Two days later, the stock came back to the AVWAP (4) and this time failed to bounce.



Chart 3.1 Not all pullbacks to AVWAP can be expected to bounce. Chart: TC2000.com

This example shows one instance where the trader would have made money immediately if he purchased the touch of the AVWAP (3). It also shows where the stock continued to decline through the AVWAP, which would have resulted in a loss (4).

AVWAP levels are not always an automatic place to do business and you must decide through trial and error if you prefer to buy the touch or wait for the stock to bounce from the AVWAP before you make a purchase. I cover this at length in Chapter 7, "Buy Pullbacks and Breakouts?"

The stock in Chart 3.2 continued in its uptrend from the early February anchor point, but the purchases right at the AVWAP (green arrows) from the low didn't all immediately result in a gain.



Chart 3.2 Not all touches of the AVWAP will result in an immediate bounce. Chart: TC2000.com

It can be better to purchase when the stock rises again (the bounce). The green dots show these points. When we purchase with momentum, we take part as the new trend begins. We can place a stop below the preceding higher-low, to protect us in the event that the price action does not follow through. A purchase right at the AVWAP touch does not allow us to have a consistent low-risk stop level, based on price action.

Option B: Enter with Momentum

Purchasing the stock after it tests the AVWAP and bounces away from it is the lower-risk entry. A short sale after a test of AVWAP followed by a decline is the lower-risk short entry. In this type of set-up we have evidence that buyers have defended the AVWAP successfully before we put our money at risk. Momentum is on our side with these entries, long and short.

The AVWAP allows us to find exactly where and when the sellers are overwhelmed and buyers have regained control. This type of entry allows us to enter at the onset of new momentum and easily define our risk.

I like to be right from the start and enter a trade with momentum. Let others jump the gun, do the “dirty work,” and take the larger associated risks while Support forms. If you are in the right neighborhood, there will still be plenty of opportunity for profit and with less risk.

Wait patiently for the signal (a general guideline would be 3-5 bars for the timeframe you are on) to enter so you have a level to trade against. We want to enter AFTER buyers or sellers have regained control. Buy strength after the dip and short weakness after the rip.



Chart 3.3 The lower-risk short entries occur after the AVWAP has been tested. Chart: TC2000.com

In Chart 3.3, the stock made an important high in early January. Once the stock dropped for a few days, that high became the logical place to set our AVWAP (blue arrow).

There were several touches of the AVWAP (red arrows) where the stock could have been shorted with minimal initial loss and that makes it tempting to short at the AVWAP. With the benefit of hindsight, we know these trades would have been profitable, but at that moment, when these trades might have been initiated, the momentum and stop placement price was not clear. That makes these entries risky.

The other option is to wait for the stock to drop away from the AVWAP and short as the downward momentum builds (green dots). We could then place a stop above the preceding high (red arrows).

This latter entry point assures the stock is moving in the desired direction before our entry. It also provides us with an easily identifiable level for our stop loss in case the stock reverses back higher.

In Chart 3.4 we can see how selling short as the stock touches AVWAP (red arrows) would have resulted in choppy trading or, worse, losses.

As noted, I prefer to start a short position as the stock drops away from the AVWAP (indicated by the green dots), where the downward momentum is confirmed. Then we can place a stop above the most recent relevant lower-high. When you set your stop level based on price action, it allows for greater certainty and confidence in the trade from the start.

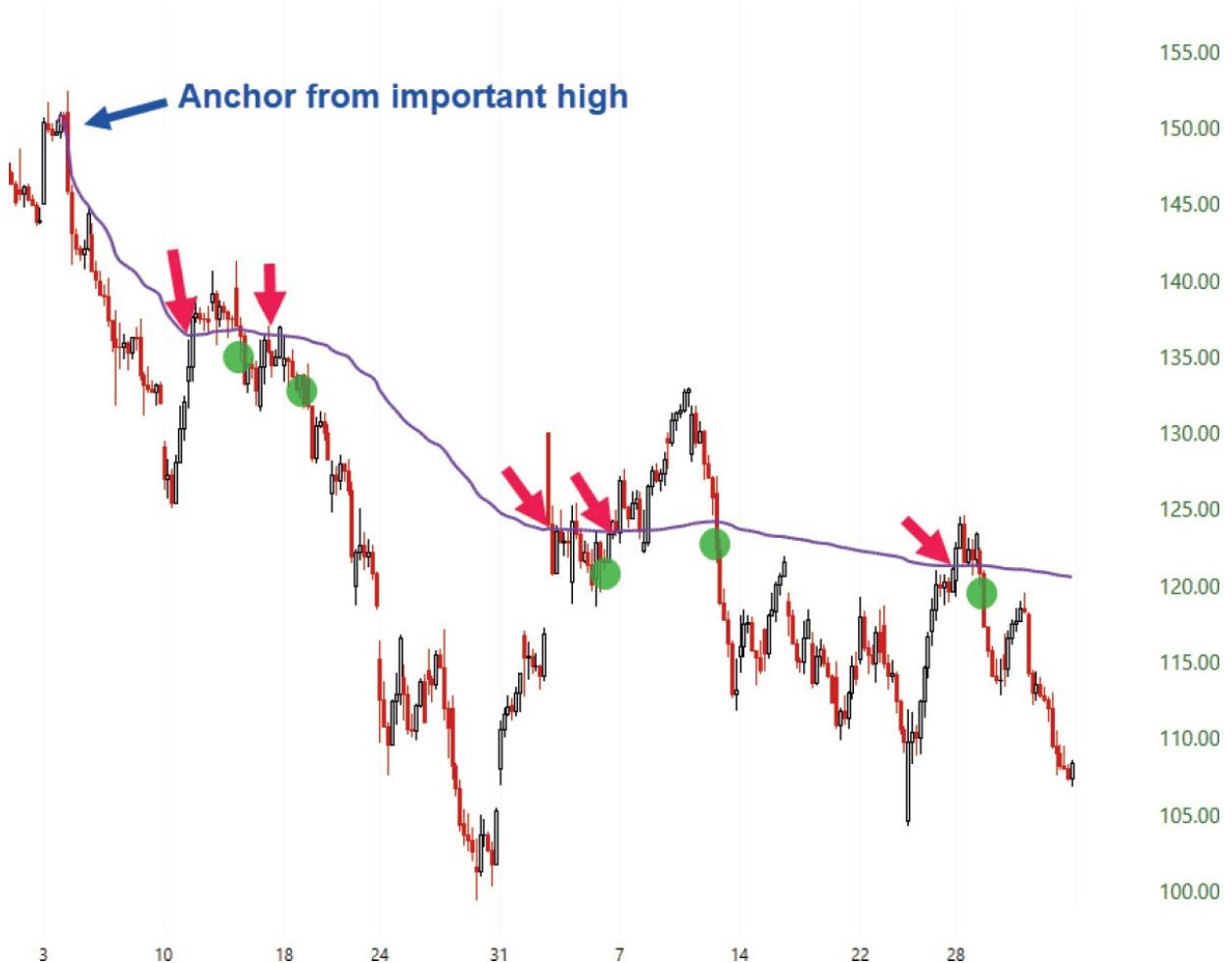


Chart 3.4 When prices frequently cross above and below the AVWAP, it is difficult to control the risk. Chart: TC2000.com

Which is Right for You?

There is no one right way for everything, only the right way for you. Whether you decide your approach is to buy just as the stock touches the AVWAP, or if you wait for further evidence before you make an entry. Most people will gravitate toward one or the other. You might have a natural preference about the entry location, or it might take time to develop your preference as you try both methods.

Some people might even prefer to take a hybrid approach where they start their position on the first touch of the AVWAP and then add to the position after it proves to be momentum Support or Resistance. As always, do what is right for you. Make the trade your own.

Market Psychology: Price Has Memory, so Use It

One of the basic tenets of the study of price history is that “broken support acts as resistance.” The opposite is also true, “broken resistance acts as support.”

Support Becomes Resistance

Have you ever purchased a stock, watched it decline in price and wish you could just get out at a breakeven? Me too. This type of buyer’s remorse shows up on a chart as Resistance.

When the stock rallies back to the purchase price and you place your sell order, it adds supply, which becomes a block, however temporary, to the price advancement. Obviously, one person’s sale of stock won’t typically offer much Resistance. When sales occur at a widely recognized level (price memory) shared by many participants, such as a significant moving average or average of AVWAP level, it becomes much harder for the stock to work through the large supply being offered before it can move higher.

Don’t forget about short sellers here, too. When Support breaks, short sellers are in control of the stock and they will try to defend their short position by adding more supply in hopes of not only adding to their short position, but also to scare long holders to liquidate their positions in fear of larger losses, which benefits their short bet.



Charts 3.5 (left) and 3.6 (right) show how AVWAP Support became Resistance. Chart: TC2000.com

Notice that in Chart 3.5 there were no actual tests of the rising AVWAP. This is an example of a “non-textbook example.” We often give analysis of AVWAP, or any market approach, an improbable expectation of success. In real trading, it isn’t as perfect as some books would lead you to believe. Remember, there is the science of analysis and the more difficult art of trading.

Chart 3.6 is a more straightforward example of how the AVWAP, which once provided Support (green arrows) became Resistance (red arrows).



Chart 3.7 This stock demonstrates how Support (green arrows) when broken, turns to Resistance (red arrows). This can occur on more than one instance on the same chart. Chart: TC2000.com

In Chart 3.7, the AVWAP from the October low (blue arrow on left) showed Support twice (1) and (2) before it flipped to Resistance in early January (3) and then again in early February (4). If you find me on Twitter in a situation like this, you might hear me refer to points (3) and (4) as “AVWAP Tap and Crap” or “AVWAP Thump and Dump.”

When the green AVWAP is anchored from the January low (5), notice how the AVWAP acted as Resistance twice after the start of the decline: (6) in early February, and (7) in mid-February.

We use price charts to understand the collective reasoning and psychology of market participants so we can objectively prepare our trade plan. When traditional Support breaks and then acts as Resistance, it means that there has been a greater number of participants anchored at that price level which, in turn can lead to a larger opposite move when the price breaks.

When price breaks a major level of Support, the trapped longs will have a propensity to get out at breakeven and as they sell shares, the supply from these participants helps to form Resistance.

Resistance Becomes Support

The same emotions come into play when a stock forms Support on a chart. Have you ever sold a stock after it has done nothing for months and then see it almost immediately turn higher without you? It is as if "they" know you are out and agree to take the stock higher without you.

Of course this doesn't really happen, but you probably wish you could buy your shares back at your original cost. As sellers start to take advantage of the rising price, causing the stock to pull back toward the breakout level, you may decide to get back in. Others, with sidelined cash may also be motivated to join in on what appears to be a new uptrend.



Chart 3.8 shows traditional Support and Resistance. Chart: TC2000.com

Don't forget about those short sellers. If you were shorting the stock and it breaks out, it may motivate you to purchase your stock on the pullback before it begins a move higher. These short-covering purchases are strictly about limiting losses, which can quickly spiral out of control if the stock follows through on the breakout. These actions, repeated by many buyers and sellers, form Support for a stock's price.

Charts 3.8 and 3.9 show traditional (horizontal) Resistance versus AVWAP Support and Resistance (with 3.8 as traditional and 3.9 as AVWAP). The AVWAP provides dynamic evidence of Support and Resistance.

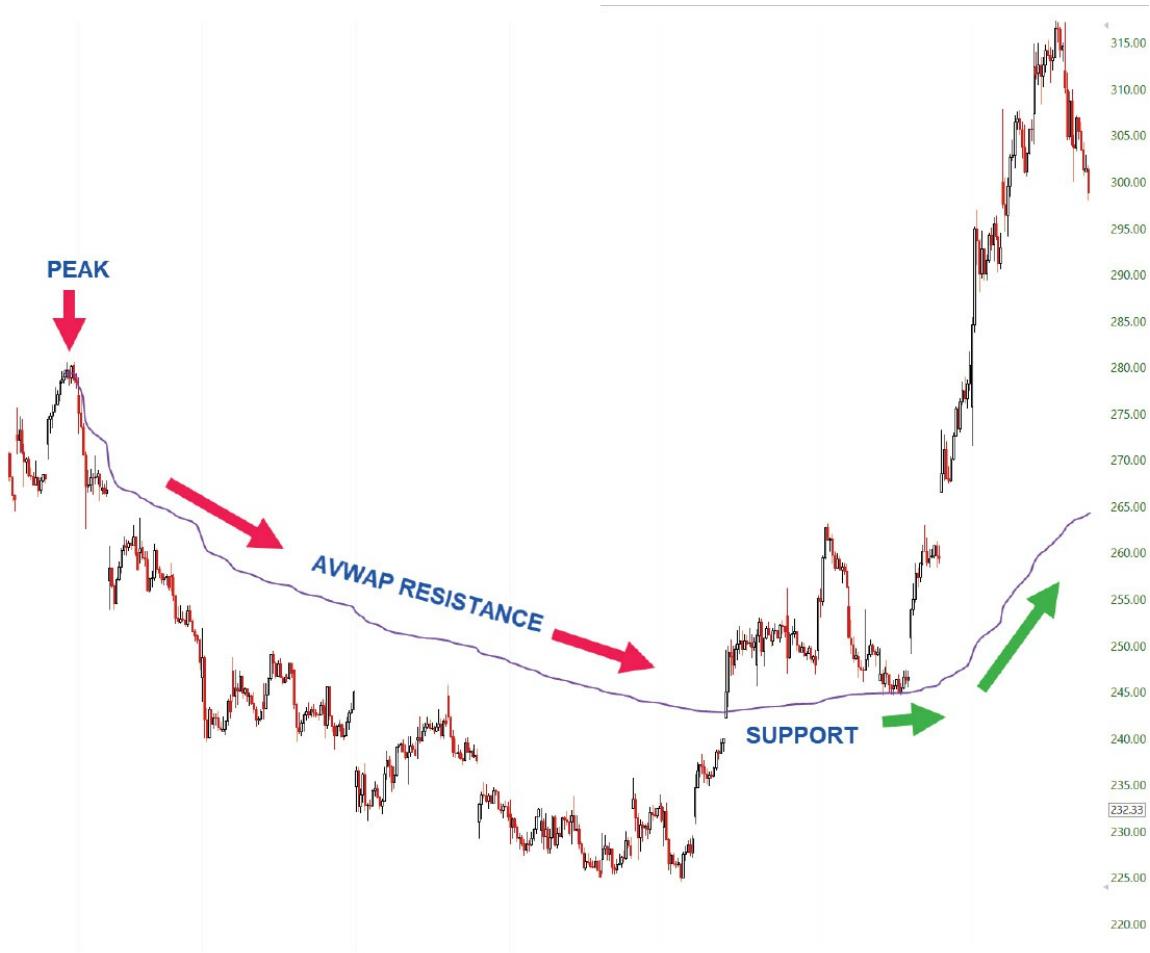


Chart 3.9 shows dynamic levels of Support and Resistance recognized with AVWAP. Chart: TC2000.com

Chart 3.8 shows what has been referred to as horizontal or traditional Support (green) becoming Resistance (red). Chart 3.9 shows the AVWAP from a former peak becomes support after the stock makes it back up above that prior resistance.

Both techniques of measuring Support and Resistance are valuable, but by using AVWAP, pricing activity is revealed to be more granular and you can see subtle changes in trends. This makes it easier for you to more precisely time a purchase or sale.



Chart 3.10 Illustration of how traditional Support becomes Resistance.



Chart 3.11 The AVWAP that provided Support became Resistance soon after prices broke below the AVWAP. Charts: TC2000.com

Charts 3.10 and 3.11 also illustrate the differences of the two methods of finding levels of Support and Resistance.

Active traders who use traditional measures of Support would miss a number of opportunities to buy or sell. For example, based on what you've read so far, can you see in Chart 3.11 where the two green arrows show areas of interest for setting up trades? These areas are not so easily identified in Chart 3.10. By using AVWAP, traders can see the transition from Support to Resistance more quickly and precisely.

The more times Support or Resistance is tested, the more likely it is to fail. This is a simple, but important concept. Traders' impatience is demonstrated by the frequency of tests made to Support and Resistance. Monitor this impatience carefully for signs of potential for the price to move out

of the current range. Price level breakouts may trigger an important turn in the trading activity of the average participant and, as we will see, they are excellent places from which to anchor our AVWAP.

When traditional Resistance breaks and then acts as Support, larger moves often occur on the upside. When prices break a major level of Resistance, the trapped shorts will look to get out at break even by purchasing shares to cover their positions and the demand from these participants helps to form Support. The two charts below show the concept of how broken Resistance becomes Support. I came up with a couple of corny ways to remember them, "AVWAP Kiss and Run" or "AVWAP Tap and Snap."

Chart 3.12 shows two instances where Resistance provided by the AVWAPs anchored to separate points, broke (1,2) and then flipped to Support (3,4) over the course of just four days.

In Chart 3.13, the daily chart saw the AVWAP from the early peak act as Resistance (red arrows) before buyers took control and then defended pullbacks to the AVWAP, where it formed Support (green arrows). Eventually, the buyers soaked up all the supply offered, and the stock experienced a great run higher.



Chart 3.12 AVWAP Resistance is broken (1, 2) and acts as Support twice (3, 4) on this 15-minute timeframe. Chart: TC2000.com

In the two charts on page 77, we see the same concepts on different timeframes for further reinforcement.

The stock in Charts 3.14 and 3.15 show two different timeframes of the same stock where broken AVWAP Resistance became Support. Chart 3.14 shows 2.5-months of trades while Chart 3.15 shows six-weeks of trades on a 65-minute timeframe. The repetition of the pattern on different timeframes is a great example of a fractal playing out with Support and Resistance.



Chart 3.13 On this daily chart we see AVWAP Resistance flip to Support. Chart: TC2000.com

The longer a consolidation zone (period of relative stability in price) has taken time to develop, the greater the move away from it will be as more energy has built up. There is a larger group of traders who will benefit from a momentum push away from the consolidation. A good way to remember this is: *the bigger the top, the bigger the drop and, the bigger the base, the higher in space.*

We will delve more into market structure and trends, which are formed by directional Support and Resistance zones.



Chart 3.14 AVWAP Support and Resistance on a daily timeframe. Charts: TC2000.com



Chart 3.15 AVWAP Support and Resistance of the same stock on a 65-minute timeframe.

Key Levels and Price Targets

When we purchase a stock, it is good to know where it has the potential to go and an AVWAP from a prior important peak will often become Resistance for the stock. When a stock makes a large move and there are no levels of traditional Support or Resistance to be found on the chart (except for the AVWAP), it is a good idea to look at prior important highs and lows as anchor points.



3.16 AVWAPs from important highs and lows can remain relevant for quite a while. Chart: @TrendSpider

It is uncanny how often you will see a stock halt at an AVWAP from a prior high or low. Knowledge of these levels in advance allow us to approximate a “target” for the price move. Price targets are not necessarily a place to take profit, but to manage risk with tighter stops, so that if the stock does reverse, we can lock in large gains.

If you bought this stock (3.16) based on your analysis of shorter timeframes, it would have been wise to be aware of where the AVWAP lies in relation to the peaks (green dots). The stock made two quick moves up to the AVWAP and then came back down. This is a common occurrence in stocks that experience a bounce up toward the AVWAP.



Chart 3.17 AVWAPs from important lows can be relevant more than a year later. Chart: TC2000.com

When a stock in a longer uptrend experiences a large drop, traders will often start buying when the price drops to the AVWAP anchored at an important prior lower price, as seen in Chart 3.17.

A place for a short seller to lock in a profit would have been at the green dot, which is where the price met the purple AVWAP. This had been set from a prior important low and would have been a reasonable place for a bounce in price.

Going Deeper: Support and Resistance Failure

Support and Resistance levels are not concrete. They are not guaranteed to hold. Eventually the tone of the market will change from bullish to bearish and vice versa. When key Support and Resistance levels break, be ready to act to protect your accumulated gains because large moves in the opposite direction can come quickly. The next four charts illustrate two bullish (3.18 and 3.19) and two bearish (3.20 and 3.21) examples.



Chart 3.18 On this daily chart, we see how the more frequently AVWAP Support is tested the more likely it is to fail.



Chart 3.19 On this 65-minute chart, we see how the more frequently AVWAP Support is tested the more likely it is to fail. Charts: TC2000.com

Charts 3.18 and 3.19 show stocks which repetitively tested the AVWAP from the prior significant low before the trend reversed lower. As the stocks experienced decent rallies, the rate of ascent in the AVWAPs slowed, resulting in even more frequent market testing of the AVWAPs. Prices eventually broke the AVWAP Support and began quick declines. Recognition of this tendency will allow you to exit winners with the bulk of your profits intact before reversals take place. For more aggressive traders, the drop away from AVWAP can also provide an early entry into a reversal.



Chart 3.20 On this intraday timeframe, we see that the more frequently Resistance is tested, the more likely it is to fail.



Chart 3.21 On this daily timeframe, we see that the more frequently Resistance is tested, the more likely it is to fail. Charts: TC2000.com

The two stocks in Charts 3.20 and 3.21 were in downtrends and consistently found sellers at the AWWAPs (red arrows), which were anchored to the significant high prior to the decline. As the stocks declined further, the AWWAPs were tested repeatedly, which eventually overwhelmed sellers and the stock reversed to an upward trend. The repeated tests of AWWAP chewed through supply as the persistent buyers became more aggressive.

You can use the concepts of AWWAP Support and Resistance on a stand-alone basis for a trade system, and you will probably achieve positive results. Of

course, you also must manage risk effectively. ***Do not confuse simple with ineffective. All too many people want a complicated approach, but simplicity is the market's greatest disguise.*** After all, stock prices move because of supply and demand. We don't have to be obsessed with the "why" behind the moves. The strategies in the chapters ahead will assume you have read and understand the concepts discussed here. They are the building blocks of the layers we add on top of basic Support and Resistance.

Risk Management

It can be difficult to wait patiently for conditions to develop into your ideal time to make a trade and to resist the temptation to get involved early. Too many times, traders give into FOMO and buy before AVWAP provides evidence confirming who has regained control. Thus, they suffer needless losses. For longer than I care to admit, this was a problem for me. I would "be sure" a stock was ready to go, so I would get involved before the price action confirmed momentum. Once in a while, I would get lucky on this type of entry, but over the long-term, these trades ended up costing me money.

KEY TAKEAWAYS

- AVWAP Support often becomes Resistance once it is broken.
- AVWAP Resistance often becomes Support once it is broken.
- Key AVWAP levels can indicate where the stock may lose momentum.
- Do not confuse simple with ineffective. Too many people want a complicated approach, but “simplicity is the market’s greatest disguise.”
- The more times AVWAP Support or Resistance is tested, the more likely it is to fail.

CHAPTER 4

WHERE TO SET THE ANCHOR

“Art is more godlike than science. Science discovers; art creates.”

—John Opie

Chapter Objectives

1. Where to anchor in high-volume events, more than 1.5x normal
2. Place anchors at measurable events
 - a. Fundamental events
 - b. Price-based events
 - c. Time-based events
3. Anchoring to fundamental events, including news
 - a. Earnings reports
 - b. Federal Reserve announcement
4. Anchoring to price-based events
 - a. When Price is the news
 - b. Using price-based anchors
5. Anchoring to specific time-based events
 - a. Week-to-Date
 - b. Month-to-Date
 - c. Quarter-to-Date
 - d. Year-to-Date
6. The Anchored VWAP Handoff and Pinch
7. Market Psychology: The Art of Anchoring

The goal of this chapter is to identify the most valuable places to set the anchor. With that, we can measure supply and demand forces objectively and gain an edge in our buy and sell decisions. ***When we begin our VWAP measurement from any point other than the beginning of one day, it becomes an “anchored” VWAP (AVWAP) and it is cumulative from that point forward.*** Our interpretation of price action is relative to the direction and slope of the AVWAP.

The concepts introduced in this chapter are the basis of the strategy chapters that follow. ***As always, the timeframe shown on the chart is irrelevant. The same concepts apply to charts whether they are plotting stock price candles month-by-month or minute-by-minute.***

The “science of technical analysis” is the theory you read about in many trading books, including this one. So far, we have covered the objective “science” of how the AVWAP forms and why it is significant to our analysis.

Now it is time to address the subjective “art” of where to start the anchored VWAP to assist in buy and sell decisions. This helps us better manage risk and ultimately make more money.

The “art of trading” is what separates the successful traders from the analysts. ***Learn the science of technical analysis and raise it to an art form as you implement it with your trades.***

It is said that you can show a good trader a mediocre setup and he will make money and you can show a mediocre trader a great setup and he will still lose money. Strive to be an objective analyst of the price-to-AVWAP relationship on multiple timeframes and you will be an even better trader. Successful traders practice their craft and spend time on layering their experience-based intuition onto their technical analysis.

“The best long-term performers in any probabilistic field, such as investing, sports team management and pari-mutuel betting-all emphasize process over outcome.” ~Michael Mauboussin

Anchor to High-Volume Events

The greater the volume of trading at a particular price level, the larger the number of participants with an emotional connection to that price level. Therefore, the price levels around high-volume events can be useful levels to set your AVWAP anchor. Unusually high-volume (loosely defined as 1.5x normal volume) price events can “shock the market” and “reset” the psychology of the crowd. The introduction of new information to a market, whether news events or technical information, can trigger or create a large volume in trading that shakes the market loose from a level of consolidation. This is called a breakout. The breakout creates a sense of urgency as the current valuation is quickly questioned and reevaluated by many participants.

When we set the AVWAP from high-volume areas, it helps us to see clearly if buyers or sellers maintain control from the event. Unusually large volume at, or associated with, a breakout increases the likelihood of the price trending in the direction (higher or lower) of the price from the break. If the AVWAP from the event offers Support or Resistance, price will typically experience a tradeable continuation as price moves away from AVWAP. If, instead, the AVWAP is undercut and the price remains under AVWAP, the stock is likely to reverse lower. Tests of the AVWAP from a high-volume event will often become a battleground between buyers and sellers, and the emerging trend can set the tone for the stock for days, weeks and even months.

Large price moves, accompanied by a surge in volume are excellent anchor points because they are where innumerable “price memories” live. The price action and development of AVWAP starting at these anchor points becomes an objective reference point where we can make an unbiased analysis of price action. From these points, the AVWAP helps us observe the real time changes in market values caused by the constant push and pull between bulls and bears.

Charts 4.1 and 4.2 show bullish and bearish high-volume levels as being a good place to set an anchor. Chart 4.1 shows a large volume gap higher (1) and the AVWAP (2) from that level remained important almost nine months after the initial move began.





Chart 4.2 High-volume bars are important anchor points in downtrends. Charts: TC2000.com

Chart 4.2 is a chart of a stock in a downtrend, where price accelerated to the downside with the first gap lower (3) and had the heaviest trading volume to that point. The AVWAP from (3) acted as Resistance through the months of December and into January. There was another sizable price gap lower in January which occurred on even heavier volume (4). This is a great example of why not to buy stocks that appear to be “down too much.”

Place Anchors at Measurable Events

In its simplest form, a “measurable event” is a point where there is a clear shift in the supply and demand dynamics of the stock or market. A measurable event typically involves a larger than normal price move accompanied by a surge in trading volume. As I always say only price pays, so volume is secondary to the price action. Measurable events occur in three different circumstances:

- Fundamental (news) events
- Price-based technical events
- Time-based events

We will explore all three categories here to lay the foundation for the strategies in the following chapters.

The unique benefit of the AVWAP comes from the ability to start our objective supply and demand measurement from any point that we choose. We don’t want to anchor AVWAPs to random points on the chart. The AVWAP is an elegant tool that allows us to measure the combination of price, volume, and time together from any point. The question is, where to set the anchor to help us see the market forces more clearly and ultimately make more money?

Anchoring to Fundamental Events

Fundamental events that may become the catalyst for a large price change could be earnings reports, FDA announcements, Federal Reserve announcements or any other company’s, sector’s, or market’s impactful report. These may cause a higher volume of trading, but it is important to distinguish between a catalyst such as news and a simple supply and demand shock that might not have been created by a specific news event.

It is good practice to know when potential market moving catalysts (such as earnings report dates) are due in the market. Awareness of these catalysts minimizes the chance we will be surprised by what could be a large price move against our position. It is important to know that a price movement after a

fundamental announcement is often counterintuitive. The market is a discounting mechanism and “good news,” which was expected, is often welcomed as a profit taking opportunity by those who had the correct position ahead of the event. Price speaks louder than the opinions of the loudest cheerleaders for the stock, because the post-announcement trading actions of buyers and sellers speak louder than words.

Earnings Reports

The releases of individual corporate earnings reports are consistently useful anchor points because they are when investors and traders will refine their beliefs and trading strategies about the companies whose stock they are holding, or are considering as trade candidates. Corporate results get reported every three months. At the end of each calendar quarter, companies prepare their financial documents for the results of the previous three months. The earnings reports are then reported to the public. The “earnings season” refers to the quarterly period where companies report their results. The earnings season begins one or two weeks after the last month of each quarter (March, June, September, and December) and continues for approximately six to eight weeks. In chart 4.3 below you can see three different anchor points set at the times that the earnings reports were released.



Chart 4.3 shows a stock with three earnings reports. Each report is a good anchor point for the start of a new AVWAP. Earnings 1 shows how the AVWAP (green) from the release date held as Support on two separate occasions. Earnings 2 (red AVWAP) shows a negative response to earnings and then two subsequent tests of the AVWAP as shares were sold into the market and provided Resistance. Earnings 3 (blue AVWAP) shows an acceleration of selling (notice the steeper slope) as sellers reacted to the contents of the report. Notice how the next four tests of the AVWAP showed Resistance.

Other news-related events that can become good anchor points include Federal Reserve meetings and speeches, FDA announcements, activist events around annual meetings, merger and acquisition news and rumors, patent awards, secondary stock offerings, strategic alliances, lawsuits and product recalls, court decisions, new contracts, and supplier issues.

Corporate events such as new products, a change in management, dividend announcements, and share buybacks can also be anchor points. I do not mean this list to be all-inclusive, nor is it meant to intimidate you. You do not have to follow all these events to know where to anchor. ***The best anchor points will become obvious to you as you become more practiced in the everyday application of AVWAP.***

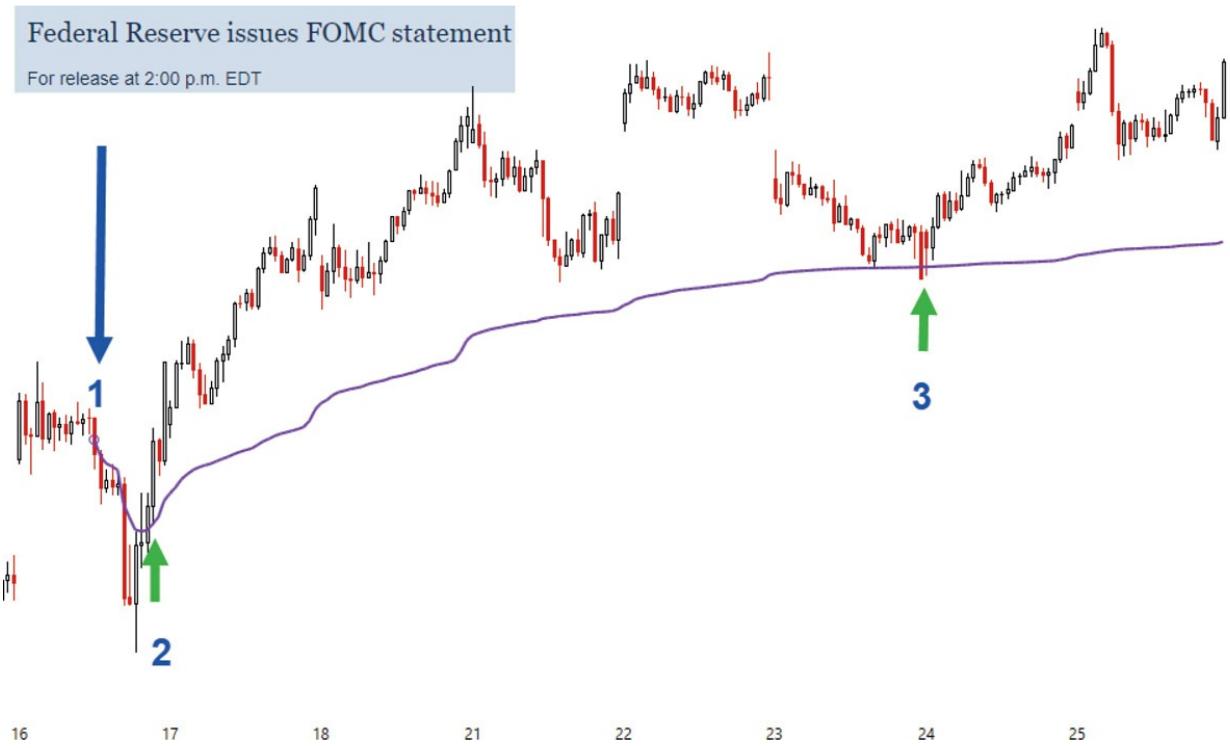


Chart 4.4 Federal Reserve announcements change the psychology of the market and are important AVWAP points. Chart: TC2000.com

On the macroeconomic side of the news, a few of the catalysts for price change that might be a good anchor point include economic numbers such as GDP, PPI, CPI, and jobs reports. Other events would include elections, wars, and weather related events. Chart 4.4 illustrates an AVWAP from a Federal Reserve announcement. Notice how that level became supported several days after the event.

Federal Reserve Announcement

Chart 4.4 is a major market ETF with the anchor set at 2 p.m. (1) on the day of the Federal Reserve policy announcement. After the initial volatility between 1 and 2, which is normal with an FOMC release, the buyers regained control (2) and the trend continued higher. Five days later, the AVWAP from the FOMC release was tested (3) and showed Support. We can use this AVWAP level as a place to set stops or to identify new buying opportunities as the stock bounces higher from the AVWAP.

Price-Based Events

When Price IS the News

Price action often is “the news,” but it doesn’t get reported by the media accurately. They try to assign a “reason” for every move. Price movement is based on supply and demand imbalances as new information comes to and is absorbed by the market. We will briefly look at some of the price-based anchors to consider before we explore them in greater detail in the chapters to follow.



Chart 4.5 Swing high points are important places to place an anchor. Chart: StockCharts.com

The obvious and important highs and lows are easy to recognize after the fact, but that doesn't mean they aren't useful. Highs where prices reversed lower are some of the best anchor points for the AVWAP, as the following tests of that AVWAP often prove to reveal the Resistance level.

Chart 4.5 shows how an AVWAP from a significant high will often act as Resistance for the stock on short-term bounces. When a stock breaks downward from a previous uptrend, an anchor to the most recent high is one of the best places to set an anchor. The anchor would probably not be set until somewhere in mid-November (1), as that is when it became clear the early November high was an important one. While the stock is below the AVWAP from that high, consider it "guilty until proven innocent." Notice how the upward rallies during the long period of declining AVWAP that started at the anchor point found Resistance during multiple tests over the next three months (2). On balance, buyers of the stock on the short-term rallies are losing money and short sellers have control.

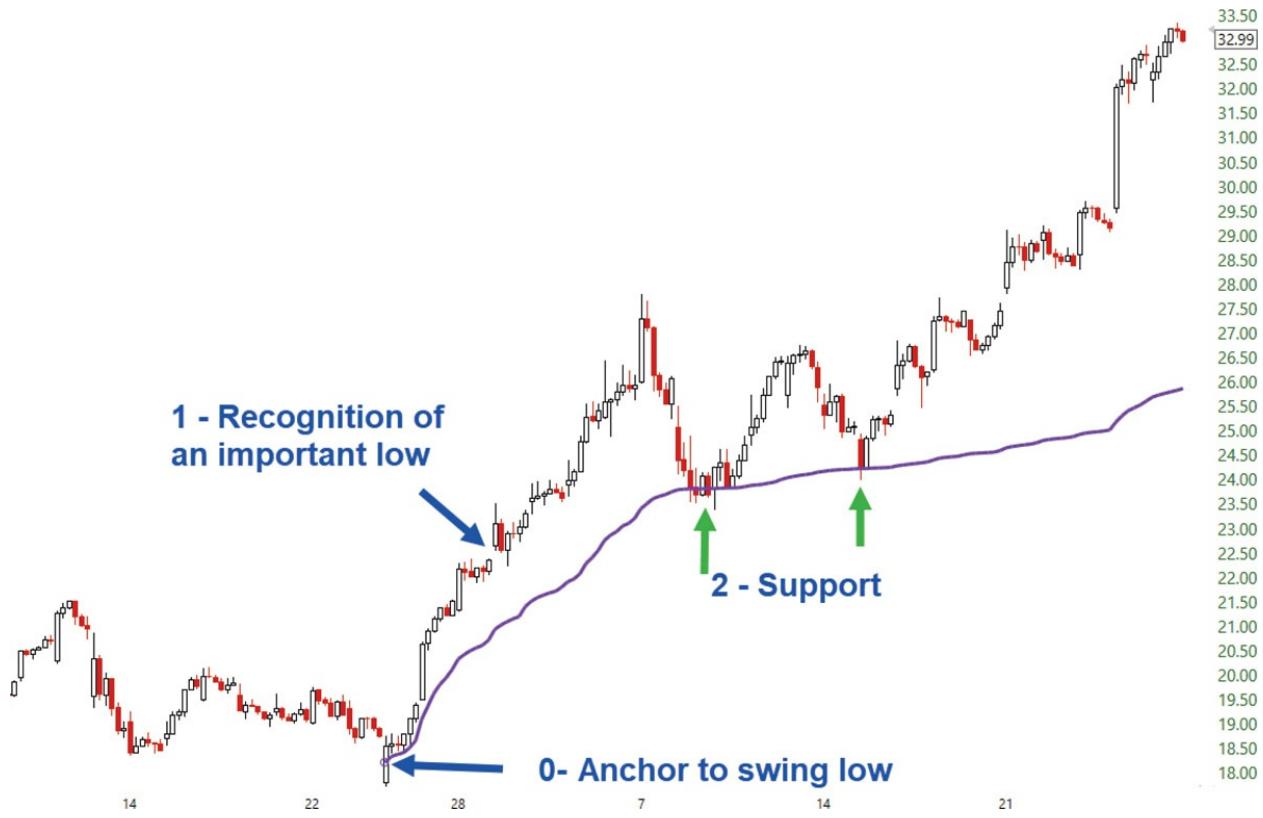


Chart 4.6 Swing low points are important AVWAP anchor points. Chart: TC2000.com

An important low is also easy to recognize after the fact. Even if it takes a couple of days for the low to become obvious, it makes sense to monitor to see if buyers defend the average price from that low. Chart 4.6, shows how an AVWAP from a significant low will often act as Support for the stock on pullbacks.

When the stock makes an important low, we will recognize it a few days after the fact (1) and then anchor our AVWAP from that now-identified low (0). The value and direction of the AVWAP might not be clear for days to weeks later until after it is tested and (in this case) provides Support (2) for the stock.

When the stock is above the rising AVWAP, consider it “innocent until proven guilty.” This means buyers are in control and sellers are fighting a losing game.

Anchoring to Specific Time-Based Events

A third category of places to which to anchor the VWAP is time based. Many decisions of portfolio managers are based on time increments (daily, week-to-date, month-to-date, or even year-to-date).

People often say that institutions only use VWAP for one day in their trade executions; that is simply not true. As we learned in Part One, Chapter 3 institutions may set buy or sell programs for as short as a couple of hours. It is also common for institutions to use AVWAP programs to buy or sell individual stocks or to buy or sell broad-based markets and to execute one large order for periods such as a calendar week, month, quarter, or even year, for very large orders.



Chart 4.7 I always set an AVWAP at the beginning of a new week. Chart: TC2000.com

The bottom line is that institutions have strategies and timeframes that are as varied as the techniques used by individuals. Why wouldn't they? Below we will look at some examples of broad market ETFs and individual stocks where there is clear evidence on the chart that buy and sell programs are time based.

Week-to-Date (WTD)

Swing traders should keep an AVWAP that begins at the start of each week on their charts. You will see how often it comes into play as Support or Resistance as the week progresses.

The week-to-date AVWAP (1) in Chart 4.7 (page 91) is one I start each Monday morning on all my charts.

The WTD AVWAP will act as Support (2) and Resistance (3), and on the chart, those roles (on all timeframes) can and often do reverse.

Month-to-Date (MTD)

When you start an AVWAP at the beginning of the month, it might not show its value until a week or two later. Once you have a MTD AVWAP on your chart, as seen in Chart 4.8, you will see how often it does become Support or Resistance.

One month of trades is shown in Chart 4.8. The anchor is set to the start of the month and builds from there. Some institutions may decide to purchase a stock over the course of a month and their programs purchase as many shares as they can at "fair value for the month" on pullbacks to the AVWAP (1). Notice the black arrow (2). The stock opened well below the AVWAP that day, but immediately reversed higher.



Chart 4.8 I always keep an AVWAP from the start of the month on my charts. Chart: TC2000.com

It is always best to set your stop-loss orders AFTER the market is open. Doing so will save you from throwing your stocks away on a manipulated lower open in search of stop orders. The first few minutes of the trade day can be more volatile as deep-pocketed participants “hunt for stop orders.” To avoid the initial volatility, I generally use the low of the first five minutes of a new day as the new stop if the previous stop was traded through on a gap lower.

Quarter-to-Date (QTD)

Some institutions (pensions and mutual funds) will make the decision to buy or sell a large position in a stock over the period of a calendar quarter. These decisions are often based around earnings reports.

Chart 4.9 shows the price action for one calendar quarter. Notice how the AVWAP from the first day of the quarter (1) acted as Support on pullbacks (2).

Some institutions make quarterly decisions to execute massive orders that need time to be filled. Always be aware of the slope of the AVWAP as prices approach and test it. The steeper the angle of the AVWAP, the greater the evidence that buyers are more active than sellers and the more likely it is that the AVWAP provides Support. Thus, it is more likely that stock will bounce higher after an AVWAP touch.



Chart 4.9 An AVWAP from the start of the quarter is often useful. Chart: StockCharts.com

Year-to-Date (YTD)

It's important to understand how some institutional portfolio managers use YTD AVWAP. In short, it is part of how they are paid. Fund managers are paid based not only on the absolute performance of their funds, but also on how they perform relative to a benchmark index or relative to the performance of their portfolio.

As an example, a manager who runs a semiconductor fund will want to make sure his average cost for the semiconductor stocks his fund owns is at least as good as the AVWAP from the first of the year. If the fund manager buys stocks above the YTD AVWAP, it will hurt the performance of the fund on a relative basis and, as a result, he will be paid less. If, instead, he is able to purchase the stocks in the portfolio at a price less than the YTD AVWAP, that fund will likely outperform others and he will earn more.

For stocks in strong uptrends, the YTD AVWAP will often act as Support as fund managers purchase shares at this "fair value" of the stock for the year. Conversely, when the stock is in a downtrend, fund managers will use rallies up to the YTD AVWAP to lighten up on their positions while the stock is closer to "fair value."

Chart 4.10 shows AVWAPs from the start of two different years. The start of a new year (1 and 2) is a level that institutions will measure risk against, both in the markets and in their individual stocks. What is often surprising is the AVWAP from the previous year (1) will still take on significance as a level of Support or Resistance well into the next year.



Chart 4.10 The AVWAP from the start of the year will be important from day one to beyond the end of the year. Chart: TC2000.com

Anchored VWAP Handoff and Pinch

Handoff

When price speeds up from the original anchor point, we can set a new additional anchor to help define the stronger momentum. This concept is introduced in Chart 4.11.

The blue AVWAP anchored to the low point shows an uptrend. Stocks can find renewed interest and accelerate dramatically from such an existing trend. When this occurs, we can set a new AVWAP to help identify this strength. The new purple AVWAP (1) can help with new entries and stop placement in open positions. The place we anchor the new AVWAP (1) is the “Handoff” area. It can also be referred to as a new “layer of momentum.”

Pinch

When we have identified key swing high and key swing low levels and the stock coils between those two AVWAPs, they pinch together. The “pinch” is a compression of energy (that is, the aggregate of traders’ reevaluation of strategies and their plans to buy or sell as soon as the price breaks one way or the other). When the stock exits the pinch, it is often an excellent trade in the break’s direction. Chart 4.12 is an example of an AVWAP pinch.



Chart 4.11 AVWAP Handoffs measure an acceleration of the original trend. Chart: TC2000.com

In Chart 4.12, the stock is compressed between the two AVWAPs as energy builds. The red AVWAP from the swing high (1) represents the dominant trend because it is longer-term. The green AVWAP (2) starts at the swing low.

As the stock “ping-ponged” between the two AVWAPs, energy was compressed until the stock broke the AVWAP Support represented by the black circle (3). This was an excellent place to short the stock.

A stop for this trade might have been placed above the Resistance at the red AVWAP, where the three red arrows (4) came together.



Chart 4.12 An AVWAP Pinch represents a compression of energy. Chart: TC2000.com

Going Deeper: Anchor to Price Gaps

In Chart 4.13, a gap shows up on the chart when there is a large imbalance between supply and demand on the open and the market must open well above or below the prior day close to find liquidity to fill the opening order. This leaves a “gap” or area where no trades appear on the chart. These gaps reveal a strong shift in sentiment and become excellent anchor points to measure subsequent action from. This is so important that I wrote Chapter 9, “AVWAP Gap Trading,” to thoroughly explain it. Chart 4.13, is one example of an AVWAP from a gap to familiarize the concept before we study it in greater detail.



Chart 4.13 Price gaps show a sudden shift in supply and demand dynamics, which make them valuable anchor points. Chart: TC2000.com

Chart 4.13 shows the anchor set to the gap in price action. This is the circled area where the first candle opens higher than the prior day's close.

Notice the first test of the gap AVWAP (1) is not quite perfect Support, but tests (2, 3, 4, and 5) find buyers almost exactly at the AVWAP from the gap.

Notice price action at points 3-5 where the AVWAP is repeatedly tested with very little bounce in the price. This is a clue that the stock may be weak (for various reasons participants may collectively lose interest in buying), and you should raise stops to just below the low (2) to ensure you book profits before a larger selloff comes.

Market Psychology: The Art of Anchoring

The art of anchor placement is something that makes more sense as you experiment with using the AVWAP in your daily analysis. It is easy to fall into the trap of "curve fitting" an AVWAP to justify a level you want to believe is Support or Resistance. Technical analysis is the study of price action, but more importantly, it is the study of the motivations of other participants and where they make decisions to buy and sell.

Because the market "has memory," we want to know the levels that are most likely to have the highest emotional attachment for other traders and then measure how price action develops around those levels. These levels are often driven by fundamental catalysts, but they can also be purely price driven.

Risk Management

The fear of missing out (FOMO) can ruin the best laid plans for a trade. Learn to anticipate the trade setup and then WAIT for price confirmation before you participate in the trade. One technique I use to combat FOMO entries is to set alerts ahead of a potential buy or sell level. Rather than set a buy stop, the alert simply tells me to take a closer look at the stock as it approaches the key level. When the alert is triggered, I will watch the stock more carefully and decide whether it is time to take action or if the stock needs more time. If I decide the stock still needs more time for a new position, I will set a new alert and repeat the process until I decide to enter a trade. This method allows me to become familiar with the short-term action in the stock and to fine tune any adjustments to my plan, including where to set my stop.

KEY TAKEAWAYS

- Some of the most important levels to anchor the AVWAP to include:
 - Fundamental (news events)
 - Price-based / technical events
 - News events such as; earnings reports, Federal Reserve announcements, jobs reports, and other institutional publications or press releases
 - Time-based events
- AVWAP techniques build on each other and strategies can be formed based upon patterns or situations such as the “AVWAP Handoff” and “AVWAP Pinch.”
- Time-based AVWAP anchors include traditional daily VWAP as well as week-to-date, month-to-date, quarter-to-date, and year-to-date.
- Price gaps occur from a sudden shift in perception of value of the stock and those levels become important anchor points.

CHAPTER 5

THE AVWAP PINCH

“Energy and persistence conquer all things.”

—Benjamin Franklin

Chapter Objectives

1. Recognize a Pinch as it forms
2. Recognize when to get involved in a Pinch
3. Recognize who is in control of a Pinch
4. Understand why a Pinch is not a reason to buy or short a stock
5. How to manage risk when a stock breaks free of a tight Pinch

Stocks that move out of a Pinch can offer some of the lowest-risk, highest-probability trend continuation trades. Learn to recognize how this AVWAP strategy forms and how to trade it effectively for larger profits.

Markets are not one dimensional, there are trends within trends. When a longer-term trend begins to pull back, it forms a short-term downtrend within the longer-term uptrend. An AVWAP Pinch refers to a compression of energy from buyers and sellers for a stock or broad-based market as the range tightens between two different AVWAPs. The original AVWAP acts as Support or Resistance from the longer-term, more powerful trend. The newer AVWAP contains price action from the counter-trend (corrective) move within the larger timeframe.

Look for high-probability trades when the shorter-term trend comes into alignment with the longer timeframe trend. The emergence of an AVWAP Pinch is often the start of that alignment.

Market movement occurs with a price (and volume) expansion and contraction, often alternating. The AVWAP Pinch forms when the battle for control creates a compression of energy, represented by a tighter trade range. Eventually the range breaks and the buyers or sellers take control of the trend to create a new momentum campaign.

While the stock is “in the Pinch,” it is just a setup, not a reason to buy or sell. We should not take action until it breaks out of the consolidation area by making a higher-high (long) or a lower-low (short). Chart 5.1 shows how the a Pinch forms between a longer- and shorter-term AVWAP.

In Chart 5.1, we recognize the anchor (1) as a significant low only after the stock has built momentum from that level (2).

As the stock progressed higher, it didn’t break to a lower-low until (4). At that point, we know to set an anchor to the highest-high (3).

Then the stock began to “Pinch,” that is staying at a price between the AVWAP starting (1) and the AVWAP starting (3). When the stock breaks out of the Pinch (6), it can be purchased with a stop below the “most recent and relevant higher-low” near (5).



Chart 5.1 A Pinch occurs as a stock trades between AVWAPs from the primary and shorter-term trend. Chart: TC2000.com

How the Pinch Forms

While the stock is in a Pinch, it is a battle between buyers and sellers. As the range narrows, it shows a constriction of energy, and the stock comes closer to a state of equilibrium. The dynamic Support and Resistance ranges formed by the converging AVWAPs show the interplay of the larger timeframe trend and the shorter-term counter trend movement (correction). Think of the Pinch like squeezing a spring together, the energy gets compressed until the spring is let go and an energetic move follows.

Trading volume and price range tend to contract simultaneously during a counter-trend move (i.e., a pullback in an uptrend or short-lived rally in a primary downtrend). This action shows a lack of near-term certainty by buyers and sellers. ***There is no advantage to be involved in the stock as this battle continues and the stock is “in the pinch.” Instead, we want to watch the stock for the reemergence of the primary trend so we can participate as the short-term trend comes into alignment with the longer, more powerful trend.*** While the stock is in the narrow range of a Pinch, we want to prepare our trade and think through the scenarios of how the trade might work out. This process is where we develop our risk/reward scenarios. We set alerts on our trade software, so we know the moment price begins to move. Large moves often emerge from a Pinch as many participants are not alert to the quick price changes, so they end up chasing the momentum.

As we discussed in Part One, Chapter 2, stocks alternate between periods of price range compression and price range expansion. We want to identify where the range compresses, prior to the next momentum campaign, so that we can anticipate the breakout of that range. When we buy the stock as close as we can to the emergence of a new trend, we maximize gains and minimize our risk.

When trends come into alignment, they present us with low-risk, high-probability trades. How we participate as a stock breaks from a Pinch is illustrated, along with the appropriate stop placement, in Chart 5.2.

The stock in Chart 5.2 experienced a strong run from (1) and began to pullback (3) so we set a new AVWAP (in red) back (2).

The stock then pinched between the green AVWAP that started (1) and the red AVWAP that started (2).

At (5) the stock made a higher-high above the red AVWAP from the peak (2), so it made sense to purchase the stock with a protective stop loss below (6) to assure that we take only a small loss if the stock reverses lower.

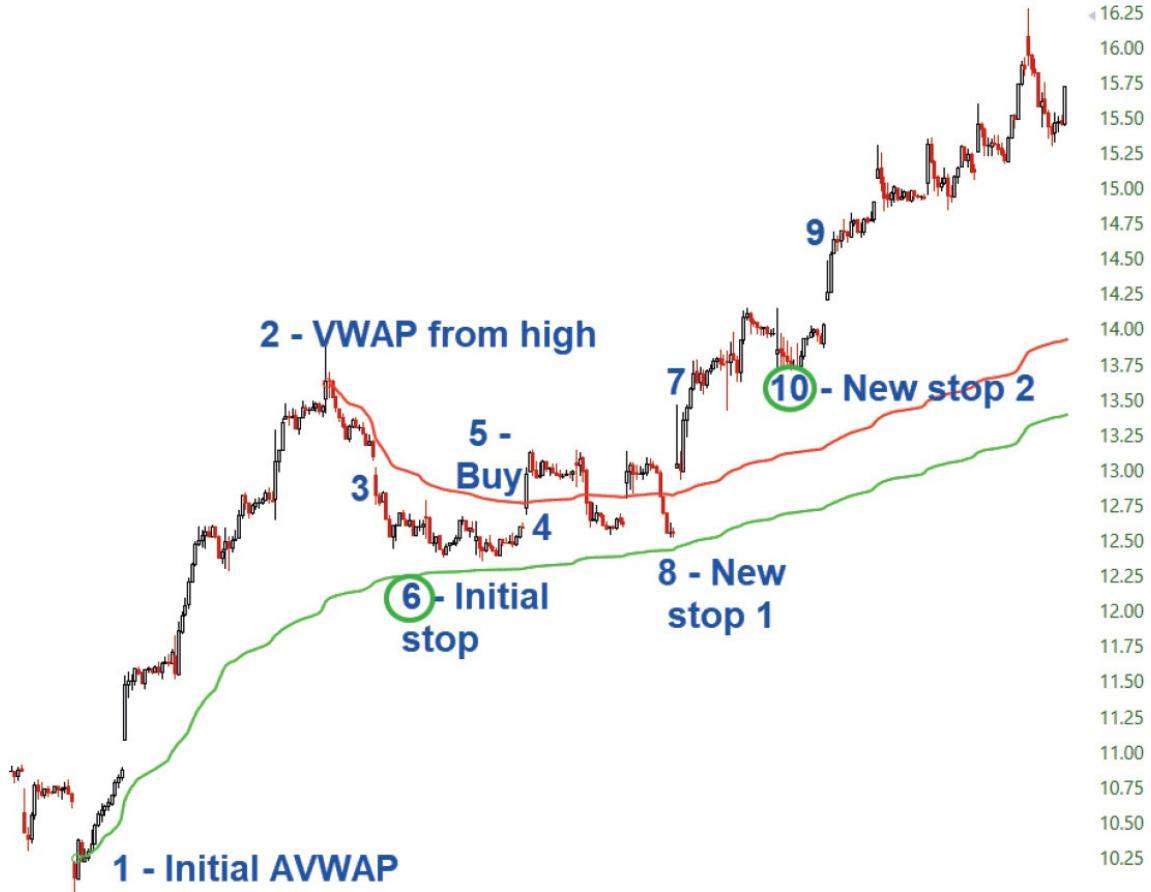


Chart 5.2 30-minute chart illustrating a Pinch. Chart: TC2000.com

Notice how the stock didn't immediately find the higher momentum. If the stock does not violate the initial stop (in this case at 6), give the stock the opportunity to work. As the stock made a new high (7) we raised the stop to (8) because it is a higher-low after the higher-high. With each new high, we raise the stop to under each new higher-low. In Chart 5.2 we raised the stop to the new higher-low (10), when the stock made another new high (9).

When to Get Involved

The ideal time to buy a stock is as it breaks free of a tight range. The early entry to an emergent trend gives us two advantages. One, we become involved just as the trend begins, so we have the greatest profit potential. Two, if the breakout cannot hold, we can place our stop close by.

For long positions, we place our stops below the most recent and relevant higher-low and for short sales, we place our stops above the most recent lower-high. The simple definition of trend tells us there is more opportunity when we buy stocks in uptrends and short the stocks in downtrends. All too often, I see traders fight this commonsense approach and attempt to purchase stocks in downtrends. They are irrationally anchored to a previous price level and view it as a bargain while prices decline. Or they try to short stocks which appear to be "up too much," rather than embrace the higher probability (and lower stress) profits that come from an approach that follows the trend. The tighter the stop we have, the greater share size we can trade while keeping our R-Multiple a constant.

Eventually, one side will take control of the trend. It is most likely that the direction of the AVWAP of the longer timeframe will resume its trend because "once a trend is established it is more likely to continue than to reverse." When price comes out of the contraction found in a Pinch, it shows whether the buyers or the sellers from the longer timeframe AVWAP are in control and whether it is reasonable to expect that a sustainable trend move has begun.

The longer timeframe participants become emboldened by their profitable positions and are likely to defend the trend. The shorter timeframe participants, who bet on the less powerful, shorter-term trend, feel trapped. When feeling trapped, they may exit their losing positions or even flip from short seller to buyer, or buyer to short seller. All of this makes a continuation of the longer timeframe trend more likely.

In contrast, Chart 5.3 shows a Pinch with a reversal of the longer-term trend. This stock pinched between red AVWAP that began (1) and the green AVWAP that began (2). As it made a higher-high above the red AVWAP (3), it was time to purchase the stock with a stop (4).

When the stock makes another higher-high (5) we raise the stop to (6). The stock then made a large surge (7). A strong move like this is often an excellent opportunity to sell part of the stock and then raise the stop on the balance to the higher-low (8).



Chart 5.3 Another Pinch example which resolved to the upside. Chart: TC2000.com

In Chart 5.3 we see (9) that the shorter-term green AVWAP crosses up through the longer-term red AVWAP, which was from the initial anchor point at the then-high (1). Some traders believe an AVWAP cross is useful, but I've noticed no significant trade advantage in them.

Chart 5.4 shows us why we do not get involved until the actual break of the Pinch occurs. The AVWAP pinch is typically (not always) resolved in the direction of the primary trend.

Not all pinches will resolve in the direction of the longer, more powerful trend.

The stock in Chart 5.4 pinched (3) between the AVWAPs' anchor points (green at 1 and red at 2). Because we know a trend once established is more likely to continue with the primary trend, we would have expected an upside move beyond the red AVWAP (2). Instead, the stock broke a lower-low (4) and then experienced a large and fast move lower.



Chart 5.4 Wait for price to come out of the Pinch before you take action to buy or sell. Chart: TC2000.com

This type of move shows why it is important to wait for price confirmation to break higher before we buy. If you purchased before the upward momentum was established, you would have seen a large and unnecessary loss.

Some traders might think the failure of the upside break was an opportunity for a short sale. Remember, this book is not about counter-trend trades or “fading the trend.” We are focused on trend-based trades, which is the higher probability of success way to trade. Readers are encouraged to use the information in this book to enhance their favorite trade strategies, whatever they may be.

Market Psychology: Recognize Who has Control

You may be familiar with names of patterns such as: head and shoulders, triangles, flags, pennants, and cup and handle. These patterns represent a contraction of price range, which then typically leads to a continuation of the price trend.

We can also apply the concepts we learned about the AVWAP Pinch to those patterns on all timeframes. The compression of range simply represents the tug of war between buyers and sellers as they wrestle for control of the trend. The emergence of a new trend out of this compression shows which side has gained control (buyers or sellers) and it becomes their game to lose. We can never fully trust that the buyers or sellers will maintain control once the new trend emerges, which is why risk management is always job number one.

If a move does not continue in the anticipated direction, we want to place our stop to ensure that any exit minimizes the risk of a large capital loss. When the stock does move in the expected direction, our job becomes risk management for the open position.

Winners do not take care of themselves. Chart 5.5 shows an inverted head and shoulders pattern which is further defined by the AVWAP Pinch.

If you are familiar with the classic chart pattern, the “head and shoulders,” Chart 5.5 shows how the AVWPA adds further clarity to an inverted head and shoulders pattern. For simplicity I’ve labeled Left Shoulder (LS), Head (H), and Right Shoulder (RS).



Chart 5.5 AVWAP overlaid on an inverted “head and shoulders” pattern. LS= left shoulder; H=head; RS= right shoulder. Chart: TC2000.com

Once the stock broke below \$54 per share (2) we knew to set an anchor to the recent high (1). Then the stock formed the inverted head and shoulders pattern. The AVWAP from the peak (1) then acted as Resistance at points (3) where buyers tested the price.

As the right shoulder made a higher-low, we then anchored a new AVWAP (green) back at the candle at the bottom of the head. At (4) the stock made a higher-high. This is where the stock could be bought with a stop just below the most recent and relevant higher-low (5).

In Charts 5.6 and 5.7, we see an example of a stock in a longer-term uptrend that broke out of the Pinch in the opposite direction of the primary trend. It is important to always wait for price confirmation before you put your hard-earned money at risk while the stock is in a Pinch.

The stock in Chart 5.6 showed two important anchor points with large gaps on the day the company reported earnings. At the first earnings report, AVWAP (1) didn’t show its significance as Support until after the 2nd AVWAP (2) was set.



Chart 5.6 The primary trend is higher so it would be expected to continue higher. Chart: TC2000.com

In late December and early January, the first AVWAP (green) showed repeated Support (green arrows) for the stock. The AVWAP from the 2nd earnings report (red) showed strong Resistance (red arrows) and it resulted in the stock getting pinched. We would monitor this stock for a potential upside break. Chart 5.7 shows that a break in the direction is not assured. Point (3) shows how the price broke lower than the longer upward trend (the first AVWAP in green).

Chart 5.7 uses the same stock as Chart 5.6. This time, we see the result of trading after a third earnings report (3) was issued. This was a genuine surprise to the market, as the stock failed miserably after that report.

Notice how the stock continued lower for the next month after the earnings report (4). There are three lessons here. One, do not purchase a stock while it is in the trendless period of a Pinch. Two, new purchases of a stock before earnings releases can be perilous. Three, there is no rush to buy stocks that might appear to be a “value” after a large selloff.



Chart 5.7 Not all pinches will be resolved in the direction of the primary trend. Chart: TC2000.com

Market Psychology: How Committed Are Buyers and Sellers?

If prices move quickly and have larger than normal volume levels, it can show us there may be traders and investors from different timeframes competing for the available supply (upside breaks). This behavior is known as a “range break.” An opportunity to buy after a pull back might not present itself for several days. The speed of a range break can reveal how motivated one side is and may change your entry technique.

This can be especially true of stocks that break out when they are accompanied by a fundamental event, such as an earnings report. The stock in Chart 5.8 came out of its Pinch with a small gap (7).

As always, the concepts and setups discussed occur in all timeframes. Chart 5.8 is constructed of 1-minute candles for the first 50 minutes of this day. Anchor (1) occurred at the start of the day after the stock gapped significantly higher from the previous day close.

Initially, buyers held control of the stock, but then it broke below the daily VWAP (red) (2).

A day trader could start a short position with a stop above the high of the day (3). After the initial bounce, the stock found Resistance at the daily VWAP (4 and 5) and stops could be lowered to just above these short-term peaks. A new AVWAP (green) was anchored to the new lower-low (6). The selling sped up (7) as the stock gapped below the AVWAP from (6).

Longer-term traders may look at this and not see the value of trading on a 1-minute chart, but shorter-term traders could have the opportunity to profit from more than a 2-point decline in less than an hour.



Chart 5.8 A 1-minute chart. The gap (7) shows a more motivated group of sellers. Chart: TC2000.com

The Anchored VWAP Pinch is a setup that typically gives us plenty of time to anticipate the trade setup as the stock “ping pong” between the two significant AVWAP levels. You may be tempted to enter the stock before it exits the Pinch and makes a higher-high (longs) or lower-low (shorts) but, as we saw with the preceding examples, ***an AVWAP Pinch is not a reason to buy or short the stock.***

We should enter the trade when the stock breaks out of the Pinch to participate in the emergent momentum. Of course no trade plan is complete without setting a stop after the entry to protect against catastrophic losses.

Risk Management

Trends are not one dimensional, there are trends within trends, and therefore we wait for price confirmation before getting involved.

An AVWAP Pinch is most likely to break in the direction of the primary trend. The tighter the pinch, the more likely it is to experience a powerful break. When a stock breaks free of a tight pinch, we can keep close stops and trade more shares with the same R-Multiple at risk.

KEY TAKEAWAYS

- An AWWAP Pinch is a tightening of the price range.
- The break of the Pinch often leads to excellent trend trades.
- The action point of an AWWAP Pinch is when it breaks free of its consolidation.
- The ideal time to buy a stock is as it breaks free of a tight range. The early entry to an emergent trend gives us two advantages. One, we become involved just as the trend begins, so we have the greatest profit potential. Two, if the breakout cannot hold, we can place our stop close by.
- It is more important to understand the psychology of how a Pinch is formed than it is to simply recognize pattern formations.
- Not all Pinches will be resolved in the direction of the primary trend, which is why we wait for price to confirm the break before we get involved.
- AWWAP Pinches are formed and are actionable on all timeframes.

CHAPTER 6

NEW ANCHOR POINTS IN A TREND (THE HANDOFF)

“We ought neither to fasten our ship to one small anchor, nor our life to a single hope.”

—Epictetus

Chapter Objectives

1. Define “Handoff”
2. Identify a Handoff in uptrends, downtrends, and in all timeframes
3. How to time entries and exits using Handoffs
4. When to combine Handoff and Pinch

As we have learned, primary trends rarely move in a smooth line. They slow down and speed up at various points before an eventual reversal. This is why we will have multiple anchor points on a chart. When a trend accelerates from the original anchor point, in either direction, it is useful to create a new AVWAP to help measure the renewed momentum. This gives us the ability to better define and manage risk for existing positions, as well as for new entries.

We anchor a new AVWAP when a trend begins to accelerate after the original AVWAP was touched (or nearly touched). This is our “Handoff point,” a term I coined. A Handoff helps us to visualize and take advantage of the changes in the rate of momentum in a primary trend.

We leave the original or preceding AVWAP on the chart for future reference because the stock will often find Support (in uptrends) or Resistance (in downtrends) at or near that original Handoff point. In this chapter’s charts you’ll see my own best practice of changing the new AVWAP’s color with each new anchor point.

Handoffs in an Uptrend

The best tool I have to explain Handoffs is through example. Please look at the Chart 6.1 and follow the comments.

This stock was in a downtrend (A) prior to the low (1) in April. We can’t know that (1) is an important level (either high or low) until the price moves significantly. At (2) the significant upward movement away from (1) indicated that (1) was an important low. This is when we set our initial anchor (1).

As the stock progressed higher over the next several months, the momentum remained until the pullback in October (3). Since the stock quickly bounced from the original AVWAP (green) and showed renewed upward momentum from (3), we set a new anchor (and a new AVWAP in blue) (3). The “Handoff” has just taken place from green to blue.



Chart 6.1 Stock in an uptrend on a weekly timeframe with three different Handoffpoints (producing four AVWAPs). Chart: TC2000.com

The stock continued to show strength for the next eight months until a pullback in August (4) saw a test of the blue AVWAP that had been anchored at the first Handoff (3).

At (5) the stock bounced from our blue AVWAP, indicating a more aggressive source of demand. By setting a new anchor at (5) and using red as the color for the newest AVWAP, we can capture the essence of the demand. The second Handoff has taken place (5).

At (7) the stock continued down to the blue AVWAP that we had anchored (3) and once again found buyers. As the speed of the upward momentum increased, we recognized a new control point to hand off with another AVWAP (in purple) (7).

When we have several Handoff points on the chart, it looks like there are different “layers” of trend to measure, which is why we can also refer to an AVWAP Handoff as layering.

Going Deeper: Entry and Exit with Uptrend Handoffs

Chart 6.2 uses a different stock to show how to implement Handoffs. Our goal is to enter an existing trend at low-risk, high-probability points. This is an important strategy that helps us avoid FOMO purchases and take unnecessary risk by entering with renewed momentum.



Chart 6.2 Daily chart in an uptrend with entries (green dots using odd numbers) and stop levels (blue arrows using even numbers) based on the Handoff technique. Chart: TC2000.com

At (1), the new uptrend begins for the stock in Chart 6.2 and the green AVWAP is anchored there. Notice that there are two Handoff points (4 and 8) chosen several days after the stock touched the green AVWAP and more invigorated buyers appeared. The smart trader would choose these Handoff points to anchor new AVWAPs (blue at 4 and purple at 8) in light of strong price movements away from the touches. These Handoffs show a renewed commitment of buyers, which makes them important levels.

The chart shows several examples (green dots) of where we might want to purchase this stock as it came back to test the blue and purple AVWAPs from the Handoff points. The even numbers without dots (2, 4, 6, 8, 10, and 12) show where people who purchased at the pullback to the most recent AVWAP may have purchased.

In all the instances except (12), buying as the stock first touches the AVWAP would have resulted in a profitable trade. Yet, (12) showed no significant bounce and instead failed, which would have resulted in a loss. As stated in earlier chapters in the book, the point of first contact with the AVWAP is a point of interest, not necessarily a safe trigger point to place a trade.

The green dots, associated with the odd numbers, show purchase levels after the AVWAP was tested. If you purchase at the green dots, you could place a stop below the prior blue arrow at the prior even number. For instance, if you purchased (7) the most recent relevant higher low was (6). Place the stop under that level.

Notice there is no number 13 above, no it's not because the number 13 is unlucky. There is no 13 because the stock failed to show the proper strength to bounce higher from the AVWAP.

As we studied with Support and Resistance in Chapter 2, when the price touches the previous AVWAP, it is up to the trader to decide if they want to purchase a new position or add to an existing position.

The best purchase option occurs when the stock moves away from the AVWAP touch as new price momentum develops. My preference is to buy if the stock shows renewed momentum. This will allow me to purchase with a price trend in my favor from the start, and with the bonus of a logical place to set the stop. Risk management is always on the mind of the most successful traders.

At times we need to remove an anchor if a significant price move did not develop and the stock turned sideways. This helps keep your chart uncluttered. Once you have more experience with the anchoring process, this will become more intuitive.

Handoffs in a Downtrend

Just as Support and Resistance are mirrors of each other, the Handoffs in uptrends and downtrends are similarly opposite. Chart 6.3 shows Handoffs with a stock in a downtrend.

The stock in Chart 6.3 gapped higher at opening (1) and failed to hold the gains from that gap. The time wasn't right to set the anchor point until (2), when the stock made a lower-low, at which point we set the anchor point to (1). Remember, we look to anchor at a logical point, such as a lower-high (on a

downtrend) or a higher-low (on an uptrend).

Then the stock rallied up to the (red) AVWAP (3) and turned sharply lower. This is where we set our first AVWAP Handoff (purple). As the stock continued lower, it experienced a failed attempt to move higher (5). At (4) the stock made a lower-low, so we began another AVWAP Handoff (blue) back (5).



Chart 6.3 This daily chart of a stock in a downtrend shows four different Handoff points (3, 5, 7 and 8). Chart: TC2000.com

Only set an anchor once you realize that the stock reached an important level. This means we will always recognize the Handoff after the move is underway. At (7), the stock ran into the blue AVWAP from (5) and continued back down.

There is an option to short the stock (7) as the stock drops away from that level. However, it was only (6) that enough time and activity had passed to allow us to intelligently identify and create a new Handoff (black) (7).

The next Handoff (light blue) was placed (8) after the stock failed to push up through the prior (black) AVWAP Handoff.

Going Deeper: Entry and Exit with Downtrend Handoffs

As we will explore in the next chapter, entries for lower-risk short sales occur when the stock has downward momentum. Chart 6.4 shows entries and stop points for short sales. Notice how the Handoffs do not always touch precisely on the prior AVWAP. This is intentional so as to show that not all trade opportunities are traditional “textbook examples.”



Chart 6.4 Daily chart in a downtrend with entries (green dots using odd numbers) and stop levels (blue arrows using even numbers) based on the Handoff technique. Chart: TC2000.com

This stock is in a Stage 4 Decline (see: Chart in Appendix A) and shows where the first AVWAP (red) is anchored (1). We set the next anchor (purple) (2), but this was not an official Handoff because prices didn't touch the first (red) AVWAP. We set it (2) because prices moved steadily lower from that point. ***Do not expect perfection in any aspect of analysis or trading, our goal is to capture the essence of trend, not argue about what qualifies in a textbook as a Handoff or any other concept.***

The “art” of analysis and trading allow for interpretation within reasonable guidelines. At points (4 and 6) there were official Handoffs from the previous (purple) AVWAP (2).

More important than what qualifies as a Handoff is the opportunity to enter this stock with a short sale. The odd numbers, associated with the green dots (3, 5, 7, 9, and 11), show where we could enter a short position as the stock gathers momentum to the downside.

The choice to enter the short trade is the same as when we buy a stock. Do we short at or around the touch of the important AVWAP, or wait for prices to turn away from the AVWAP? An entry at either of these two points would allow for a stop just above the prior peak (marked by the even numbers).

For example, we could protect a short sale entry (7) with a stop above the prior peak (6). If we sold the stock short (7) and then it happened to increase in price above the prior high (6), the definition of the downtrend (lower-highs and lower-lows) would no longer exist, so we would cut our loss at that point.

The first official entry as this stock touched a prior AVWAP would have occurred (5), with a stop above (4). The entries (6, 8, and 10) would not have had a “most recent and relevant lower-high” nearby to protect the position with a stop, which makes these entries riskier.

Handoffs in All Timeframes

As always, it is worth a mention that these AVWAP Handoff concepts apply to all timeframes. The principles of the Handoffs apply from longer-term investing all the way down to day trading from a 1- or 2-minute chart, as shown in Charts 6.5 and 6.6.

Chart 6.5 shows two trade days for one stock. On the first day, the stock was strong from the start and never pulled back for a test of the daily VWAP. On day two, the stock pulled back (2) to the green AVWAP from day one.



Chart 6.5 Two-day chart with 2-minute candles and two different upside Handoffpoints. Chart: TC2000.com

We can make a low-risk purchase (3) represented by the green dot, with a stop below the low on the test of the green AVWAP (2). As the stock moved higher, we would Handoff a new AVWAP (blue) (2) and stops could then be raised upon to points (4 and 8) as the stock made higher-lows along that AVWAP.

We could make a new purchase (5) with a stop (4). This is also where it made sense for a new Handoff (purple) (4).

We could set a more aggressive stop (7) as this was the test of the second AVWAP Handoff, which is where we had anchored the third AVWAP in purple.

At (8) the stock would be stopped out for a day trade gain of about \$0.50/share.

In Chart 6.6, a one-day timeline (still at 2-minute intervals), this stock was weak from the start of the day. The daily VWAP (red) from the start (1) found sellers (2). We anchored a new AVWAP in blue. We had two entry choices here:

1. Sell the stock short as it touched the daily VWAP (2).
2. A safer choice is to sell the stock short near the red dot (3) as the stock fell away from the daily VWAP.



Chart 6.6 One-day chart with 2-minute candles and three different downside Handoff points. Chart: TC2000.com

No matter our choice, we would place a protective stop just above (2). The stop would then get trailed down to just above the highs represented by the red arrows. Notice how points (4 and 5) were also the basis of new Handoff levels as the pace of the decline sprinted away from the previous AVWAP Handoffs. The red dots represent alternative entry points on this day.

Going Deeper: Combine the Handoff and Pinch

Once you learn to recognize one AVWAP strategy on a regular basis, you will begin to notice that other strategies will show up on the chart. Now we can look at how the Handoff and Pinch work together. If you miss the original trade, there are often new purchase points after an AVWAP Handoff.

When this happens, you will see alternative entries at Handoff points. The stock in Chart 6.7 started with a buy opportunity as it broke a pinch (3). This might look overwhelming, but follow the chart AVWAP to AVWAP. Each is a different color to make it easier to follow price action.

We placed the anchor (1), the opening price, then we waited out the downtrend to find a reversal indicated by the new higher-low (4). When the stock climbed back above that AVWAP (3) and buyers regained control, then we would set a new AVWAP in green to the low (2).

The stock broke beyond the upper AVWAP (red) to create a near-term higher-high (3). At that point we could buy the stock with a stop below (4), the most recent and relevant higher-low.

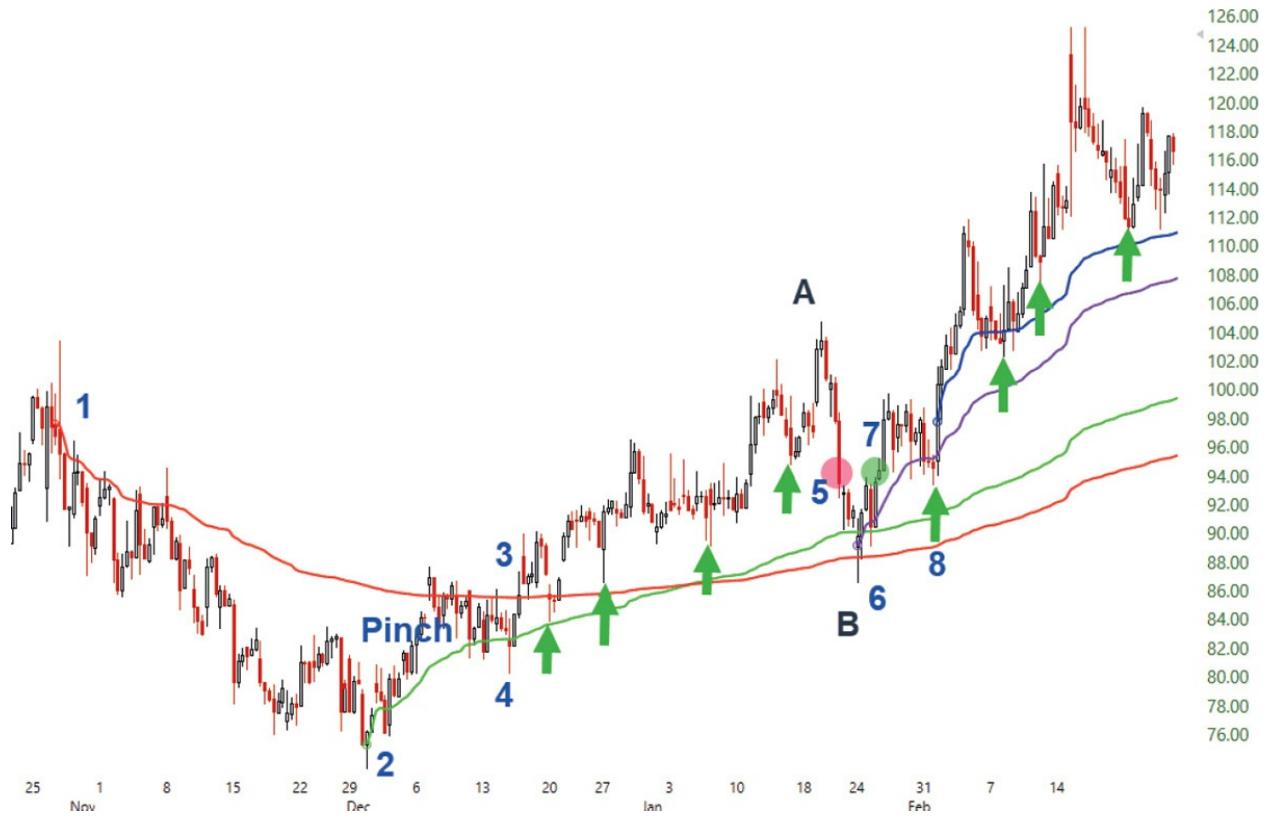


Chart 6.7 This 30-minute chart shows Handoffs that formed after an AVWAP pinch. Chart: TC2000.com

As the stock climbed, we would raise the stop up under the successive higher-lows represented by the green arrows. When the higher-low (5) is broken the stop is triggered (represented by a red dot).

At (6), the stock continued down through the green AVWAP from (2) and below the red AVWAP from (1). A buy at either of those two AVWAPs would have resulted in near-term losses. A purchase near the green dot (7) would have been in a profitable position right from the start. As it showed the near-term strength, we can anchor a new Handoff point and purchase the stock.

You may notice the purchase (7) is almost identical to the prior exit and wonder what the point of making two trades was. If the stock was purchased (3) and held through the selloff (6), the trade would have temporarily gone negative.

Notice that the price dropped from \$105 (A) to \$87 (B) on this selloff. This was a severe drop. The original purchase was near \$88 (3) and the exit would have been at \$95, a gain of 7 points, or just under 10%. The peace of mind that comes from taking a profit before the stock drops significantly is reason enough to be out of the stock. There was no assurance that the stock would recover and turn higher. Locking in the gain was the smart thing to do.

The purchase (7) put you back into the stock when the momentum was positive. Every swing trader wants to be in stocks with strong trends, lock in gains when the momentum slows or reverses, and avoid the negative periods.

Notice how the next pullback from (7) found buyers right along the first Handoff (8). Once the stock continued back up through \$100, we created a new AVWAP Handoff (8) and that AVWAP continued to hold up to the end of the chart.

The green arrows represent the higher-lows under which we can raise our stop levels from the purchase (7). At the end of this chart, the stop would have been at approximately \$111, from the purchase near \$94.

KEY TAKEAWAYS

- It is normal for the rate of change in a trend to slow down and speed up.
- We set new anchor points from the levels buyers and sellers become more aggressive.
- Multiple Handoffs look like “layers” as the point of control changes with renewed momentum.
- AVWAP Handoffs can be used to trade more accurately on all timeframes.
- A Handoff level can often become the anchor point of a new Pinch in a trend.

CHAPTER 7

BUY PULLBACKS AND BREAKOUTS?

“Whenever you find yourself on the side of the majority, it is time to pause and reflect.”

—Mark Twain

Chapter Objectives

1. Recognize a Pullback
2. Recognize a Breakout
3. Don’t buy the dip, buy strength after the dip
4. Know the difference between a dip and a downtrend
5. Don’t short the rip, short weakness after the rip
6. Understand why some breakouts fail
7. How to manage risk

With an understanding of how a trend’s rate of movement changes, we can now examine two popular strategies, buying a Breakout and buying a Pullback. A couple of simple adjustments to the general Pullback and Breakout trade strategies will make these strategies much more profitable. Of course, the improvements to these strategies come from the addition of AVWAP analysis.

Pullbacks

The nature of markets is that they experience a directional thrust and then either consolidate sideways through time, meaning that the price stabilizes and stays within a somewhat narrow range, or they experience some short-term profit taking, which creates a “Pullback.” A Pullback is also often referred to as a “dip.” One of the basic foundations of technical analysis is that *a trend, once established, is more likely to continue than reverse*. Because of this fundamental rule, it’s important to study Pullbacks carefully.

After any period of frenzied trading, calmer heads need to prevail. Recall what we learned in Part Two, Chapter Two about Support & Resistance—each is only identified with certainty in hindsight. Pullbacks are akin to this. We give a Pullback the benefit of the doubt and prepare a purchase, but if it continues to decline in price, we do not participate. The reemergence of trend on the shorter timeframe is our opportunity to take part in a low-risk, high-probability trend continuation trade. This is the basis of trend alignment.

When the trend on the longer timeframe is still intact, we should treat Pullbacks as “innocent until proven guilty.” However, if the Pullback continues to a point where the longer timeframe no longer exhibits a pattern of higher-highs and higher-lows, we should abandon the setup until it aligns on multiple timeframes.

Don’t Buy the Dip

We often hear “buy the dip” as a strategy to purchase a stock. This refers to the desire to buy a stock that is in a longer-term uptrend, as it experiences a near-term price correction (a Pullback). It makes sense to want to buy the dip. We want to pay less than the recent high. Trading activity corrects the strong momentum, then pauses, and can then either turn back higher or fail. The possibility of trend failure is why we do not blindly buy on a Pullback.

Buy Strength After the Dip

Instead, we want to anticipate what is most likely to happen next to the stock and create our trade plan as its price drops to a level of interest. We wait for price momentum to confirm that the selling has subsided. Then, when buyers regain control of the short-term trend, we take part in the emergent strength, i.e., the price movement upward. This is the essence of trend alignment.

We want to buy as the stock moves back up above the AVWAP from the prior high. It tells us with absolute certainty that buyers have taken back control from the prior high point. We do not have to guess. When the price is above the AVWAP from the recent peak, it means the average buyer from that point is now in a profitable trade. Also, the average short seller will be in a position of weakness as their average sale price is below the current level. ***There is no technical tool better than AVWAP to identify the transition of power from buyers to sellers and sellers to buyers.***

Let others pave the way and create a near term level of Support before you purchase strength after a Pullback. Imagine you are at the beach and there is a group of people standing on top of a cliff peering over the water, tentatively deciding whether to jump into the refreshing water 40 feet below. No one has jumped from this cliff before. As a thrill seeker, it might tempt you to jump, but do you want to be the first to make the leap? What if there is a rock just below the surface that you cannot see? Of course, no one should jump if it is unsafe, but if you are going to go, don’t you want to make sure that no one gets hurt before you do? Let others take the big risk. Use a smarter approach to risks in the markets and in life.

Chart 7.1 shows why we do not blindly buy a dip in an uptrend. There were three dips in this stock’s strong uptrend. The first dip (1) saw the stock drop

from \$29.20 to \$22.60 (a 22.6% drop) in 3 hours. Imagine how you would feel if you bought the “Pullback,” such as when the stock was \$28, \$27, \$26, \$25 and the stock continued down to \$22.

The second dip (2) saw a smaller decline from \$29.50 to \$26.77, “just” 9.3% in an hour and a half.



Chart 7.1 30-minute intervals with “dips” in red and proper buy points in green. Chart: TC2000.com

The third “dip” (3) saw the stock drop close to 50% in just six days. If instead of buying on weakness, you waited until the stock got back above the AVWAP from the prior peak (one of the green dots), you would have made your purchase when buyers controlled the trend.

Notice there is no “green dot” after the peak at \$34. The stock never got back above the red AVWAP from that peak, so no purchase would occur. Rather than give into emotional thoughts like “it’s down too much,” a disciplined approach would have kept a buyer from buying as it declined from \$34 all the way down to \$17 and taking a large loss. You will never buy at the low when you buy on strength, but you will avoid unnecessary losses and you will have a logical place to set your stop.

Not all “dips” end up being a simple Pullback. They can represent trend failure, which is why we wait to buy strength after the dip.

Do Not Buy Stocks in Downtrends

As we see in the Chart 7.2, when the 50-DMA is sloped lower, the weakness is not a “dip.” It is a stock in a downtrend and it should not be considered for a long position.

Many people try to buy a “dip” in a stock in a downtrend. That is simply wrong. It is not a “dip” purchase if the stock is in a downtrend. It is buying a stock that is more likely to continue lower than it is to reverse. The accumulation process (Stage 1, seen on the market structure chart) can take months or even years before the stock is ready to turn higher again.

If they (collective action of buyers and sellers) don’t scare you out in the decline phase, they will wear you out in the long accumulation process. Don’t waste your time and money buying stocks in downtrends, no matter how low the price is relative to recent history. Don’t let FOMO rule your decisions. Wait for buyers to reestablish control before you participate in the trend.



Many traders give into the temptation to buy a stock in the decline phase, which is a type of FOMO. They see the stock rally from a certain previous level and cannot stand being on the sidelines as it reaches this “bargain” price again. Each little bounce in the downtrend gives them hope the stock has made a low, only to be disappointed when the stock eventually cannot hold the temporary gains.

Market Psychology: Support & Resistance In the Rearview Mirror

It is not possible to know if the stock will find Support and turn higher, or if the “dip” will turn into a larger, more serious bout of selling that leads to a reversal of the primary trend. We should wait for the odds to be in our favor when we purchase a stock.

Would you rather guess a low, or buy the stock when we know for fact that buyers have control? A buy above a flat to rising AVWAP gives us certainty that buyers are in control. When we purchase at potential Support levels (areas of interest), the risk is that the Support will not hold and there is not always a clear level to set our stops and limit any loss. We never know how far the price will continue to fall, which makes risk management a guessing game. A more professional approach is to wait for objective levels to form on the chart.

Buy strength after the dip. We should view a price Pullback to a level of interest as a potential opportunity on the chart, not a place to buy the stock. This area of interest guides us to look for a shorter timeframe for evidence that buyers have regained control.

Don't Short the Rip

Stocks in a downtrend are just the opposite. We hear people say “sell the rip” in a stock in a downtrend. The problem is what constitutes enough of a “rip” to sell short and where to set the stop to protect against large rallies and resulting losses? We examine this in Chart 7.3.

Chart 7.3 shows the danger of selling the stock short too early. Where would you have shorted the strength of that stock as it rallied? Would you sell at 11% in area (1), the 14% rally in area (2), or the 17% rally in area (3)?

It is safer to short AFTER the peak and the stock breaks below the AVWAP of those rallies (red dots). When we short with the downward momentum in our favor, we reduce the price risk because we have a safe place for our stop (above the most recent lower-high). This approach helps us leverage time because we do not have to guess when the sellers have taken back control.

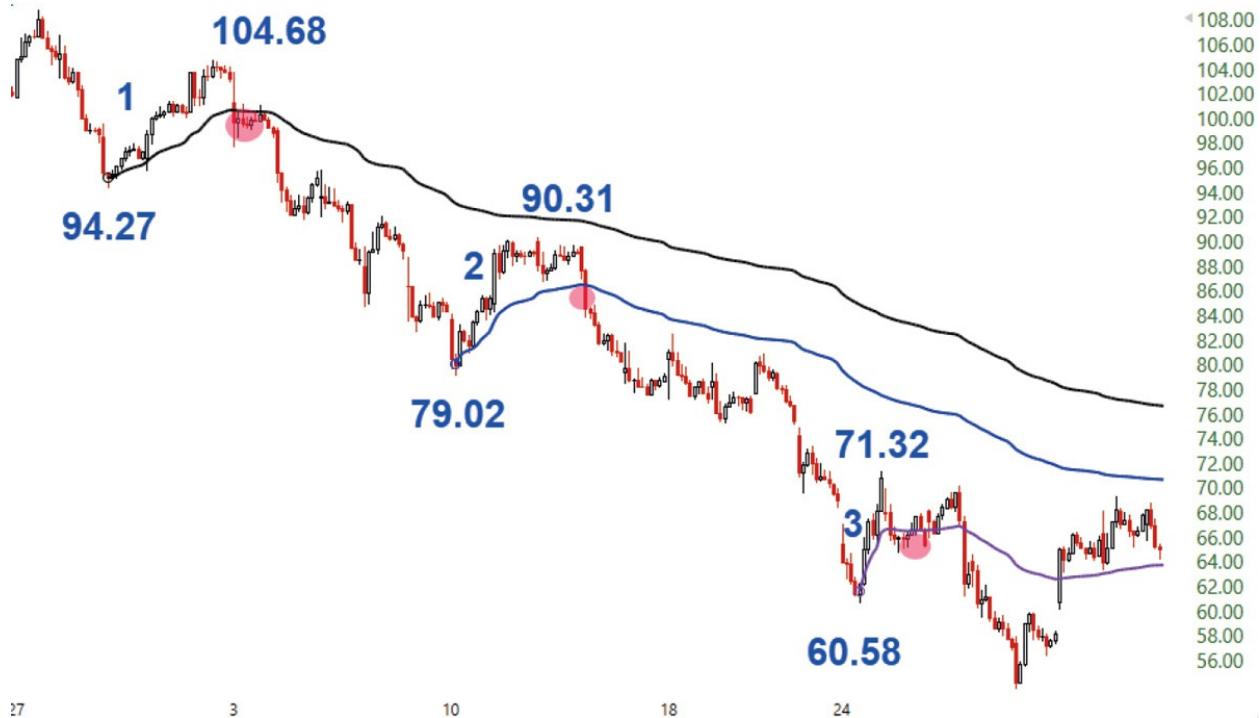


Chart 7.3. 65-minute timeframe with correct entry points for a short sale shown in red. Chart: TC2000.com

Breakout Trades

Stocks that Breakout of narrow price ranges can provide some of the most dynamic price moves. It is wise for traders to look for stocks that are near a Breakout level and then monitor those stocks on shorter timeframes for clues that they might be close to their own respective momentum moves. It is quite satisfying, and profitable, to buy a stock right at the start of a new trend and hold it for large gains as the trend remains intact. This is the goal of trend trades.

Defining a “Breakout”

There are many versions of a Breakout. Typically, it refers to a move to a new high in the timeframe we are analyzing the stock. Many of us learned to buy the Breakout, but what is a Breakout, really? If a stock rallied 10% in four days, is it a good Breakout? ***Always remember to answer these two questions: where it has come from, and where does it have the potential to go?***

Don’t Paint All Breakouts with the Same Brush

The break past a narrow price range can offer a great opportunity for trend continuation. We can buy those stocks but, as always, with a stop set in case the trend reverses.

Many times, I observe people on social media referring to a “Breakout” in a stock that, technically, has already made a higher-high. They don’t understand that the quality of the Breakout is riskier than it might appear. Narrow price ranges produce higher quality Breakouts. Riskier Breakouts typically emerge after the stock has made a large percentage prior move. It is a matter of “where has the stock come from?” If it has used a lot of energy to get to the point of Breakout, it will be more difficult to keep risk to a minimum.

Charts 7.4 and 7.5 show different stocks on daily charts, and Breakouts with different risk parameters.

The stock in Chart 7.4 shows the type of stock we want to buy on a Breakout. This is a low-risk entry point because it comes from consolidation out of a tight range. The green dot near \$72.50 was a good entry because the stock had spent little energy prior to the Breakout point.



Chart 7.4 Green dot shows a good entry for this stock as it broke out of a tight consolidation. Chart: TC2000.com

Chart 7.5 shows another stock with two different purchase points in green ovals. When the stock crossed above the purple AVWAP from the prior high (1), we knew that the average long participant was profitable and the average short seller was in a losing position. This is where buyers took control and is the optimal place for a low-risk purchase. We did not know if the buyers would remain in control, so we would set a stop just below the gap near \$27.00 (2). As the stock progressed higher, we would raise the stop under the successive higher-lows (green arrows) and might have gotten stopped out near \$29.73 (3).

The second entry (4) shows the “breakout” to the new high. A purchase there would have been made at \$29.75. The Breakout (4) is higher risk because the stock had already made a large percentage move prior to that entry. Those who purchased on the Breakout (4) arrived late to the trend compared to the buyers above the purple AVWAP anchored (1). The difference between these two purchases was a profit of approximately 9% (purchase at 1 to stop at 3) and a breakeven trade (purchase at 4 and stop at 3).

It is often taught that you should place an initial protective stop based on a fixed percentage (3% or 5%) from the entry point. Although better than no-stop strategy, the best approach is to set stops based on the definition of trend.

When we buy a stock as it breaks past a near-term Resistance level (1) and the stock is in alignment with the larger timeframe trend, we want to place our stop below “the most recent and relevant higher-low.” If it breaks that low (that is, the price drops below that low), the emergent trend has failed because the definition of the uptrend (higher-highs and higher-lows) no longer exists. Why would you want to continue to hold that stock?



Get the Entry Right

The ability to hold a winning trade is largely a function of where you enter the stock. Are you in a position of strength or weakness from the start?

Success is often simply the difference between a well-planned and executed trade at a strong (analytically supported) entry point, and a weak (emotionally determined) entry point. And guess what? That really is the difference between a professionally executed trade versus an amateurish entry.

The number one consideration when you make a purchase is where your stop will go. If you are wrong, you want to be able to limit your loss. The closer the stop is to your entry, the more shares you can trade, which magnifies the upside potential.

Advantage of the AVWAP Entry versus Buying Dips and Breakouts

Chart 7.6 labels five different moves. In each of these five Pullbacks (dips), there are several choices where to enter a long position. We review the pros and cons of each of three different entry techniques below.

In Chart 7.6 the red highlighted areas show pullbacks (A), green dots (B) show buy points where the relevant AVWAP is crossed, and the black arrows (C) show traditional breakout purchases.



Chart 7.6 There are three entry techniques outlined (A,B,C). Chart: TC2000.com

Entry A. The red shaded areas show where a Pullback buyer would look to make a purchase. As we know, it is a guessing game to buy the low in the stock as the decline is underway. This entry does not protect us against a potential reversal into a longer-term downtrend, which could result in large losses.

Entry B. The green dots show the ideal point to enter the stock as it crossed above the AVWAP from the prior peak. This is where we know with certainty the buyers have regained control from the previous high. A purchase here assures us that momentum is in our favor, and we also have a logical place for our stop (underneath the pullback low). This is called the “AVWAP Cross Purchase.”

Entry C. Is the traditional “Breakout” buy as the price makes a new high. As you can see, the Breakout points come much later than the AVWAP Cross Purchase buyers. As an example, the first AVWAP Cross Purchase was at \$6.50 versus the breakout buy of \$7.74. Not only was the AVWAP Cross Purchase \$1.24, or 19%, lower than the Breakout buy, the stop could have been tighter (less cents per share) than the breakout purchase.

Study the other purchase areas at the green dots, to compare the advantage of the AVWAP Cross Purchase to the other entry (Pullback and Breakout) techniques.

Advantage of the AVWAP Entry versus Shorting Rips and Breakdowns

Chart 7.7 labels five different moves. In each of these five rallies (rips), there are several choices where to enter a short position. We review the pros and cons of each of three different entry techniques below.

The red highlighted areas (A) show counter-trend rallies in the overall downtrends. The green dots (B) show short sale points where the price crossed below the relevant AVWAP, and the labels (C) show traditional short sale breakdown (to new lows) sales.

Entry A. The red shaded areas show where a short seller on a rally (rip) would look to enter a short position. As we know, it is a guessing game to short the high in the stock as the rally is underway. This entry does not protect us against a potential reversal higher, which could result in large losses.



Chart 7.7 There are three different short sale entry techniques outlined (A,B,C). Chart: TC2000.com

Entry B. The green dots show the ideal point to enter the stock as it crossed down below the AVWAP from the prior low. This is where we know with certainty the sellers have regained control from the previous low. A short sale here assures us that momentum is in our favor, and we also have a logical place for our stop (above the rally high). This is called the “AVWAP Cross Short Sale.”

Entry C. Is the traditional “Breakdown” short sale as the price makes a new low. As you can see, the Breakdown points come much later than the AVWAP Cross sellers. As an example, the first AVWAP Cross Short Sale was at \$160.50 versus the Breakdown sale of \$140.45. Not only was the AVWAP Cross Short Sale \$20.05, or 14.3%, higher than the Breakdown sale, but the stop could have been tighter (less cents per share) than the Breakdown short.

Study the other short sale areas at the green dots, to compare the advantage of the AVWAP Cross Short Sale to the other entry techniques.

Market Psychology: Why Breakouts and Breakdowns Fail

Breakouts: As we know, the markets discount the past and anticipate what is to come. Large stockholders who accumulate stock at lower prices often sell a portion of their stock on the Breakout if the stock experienced a run-up prior to the break higher.

Breakdowns: In a downtrend, short sellers will cover a portion of their bearish bets when the stock breaks to a new low when the stock already experienced a large move lower in the days prior to the Breakdown.

There is a phrase “sell (or cover) when you can, not when you have to.” Smart money holders take advantage of the liquidity provided by the Breakout chasers (people who buy when a stock makes a new short-term high after a large percentage move) and take profits on a portion of their position. This increased selling activity can result in the failure of a Breakout in the near-term.

Be careful not to chase Breakouts; make the smarter entry when price crosses the key AVWAP so you can be in ahead of the crowd and with less risk.

When you are involved in the stock before the crowd, it is a good idea to cash out a portion of your position as the Breakout occurs. We want to trim a portion of the trade on strength and trail our stop with or in the direction of trend (raise it up under the new higher-lows). This is where you may have heard the phrase “trim and trail.”

Risk Management

Our constant focus on where a stock has come from prior to our entry helps us determine whether a Breakout trade is considered low- or high-risk. If a stock had a strong move prior to a Breakout, it is less likely it will continue. We compensate for the higher risk with smaller trade size.

When we initiate our trade at the onset of fresh momentum. This puts the stock in alignment with the longer, more powerful trend and we avoid the risk of time (waiting for the move to happen). We also minimize the price risk and avoid unnecessary initial losses as the stock is in corrective mode.

KEY TAKEAWAYS

- When we “buy the dip” we are in an immediate position of weakness because we are not sure if the buyers will quickly regain control. Wait for the upward momentum on the shorter timeframe before making a purchase. This puts you in an initial position of strength.
- Buy strength after the dip.
- There is no technical tool better than AVWAP to identify the transition of power from buyers to sellers and sellers to buyers.
- Avoid the mentality that you are buying a bargain when the stock is in a downtrend, stocks in downtrends are “guilty until proven innocent.”
- If we “short the rip” we never know if the momentum will continue higher and cause large losses. It is better to wait for the stock to continue lower on the shorter timeframe before we consider a short sale.
- Always remember to answer these two questions: where it has come from, and where does it have the potential to go?
- The ability to hold a winning trade is largely a function of where you enter the stock. Are you in a position of strength or weakness from the start?
- Not all breakouts and breakdowns are the same. Consider how the stock got to the trigger (where has it come from?) before you decide to get involved.
- The lowest risk entries occur when the short-term trend first comes into alignment with the longer-term trend. This is true for long and short trades on all timeframes.

CHAPTER 8

MULTI-DAY AVWAPS FOR SHORTER-TERM TRADERS

“Follow the evidence wherever it leads, and question everything.”

—Neil deGrasse Tyson

Chapter Objectives

1. Understand fresh momentum trend dynamics
2. Identify low-risk entries into the second- and third-day price moves (up or down)
3. Avoid costly FOMO purchases and short sales
4. How to gain an edge on “red to green” buyers
5. How to gain an edge on “green to red” sellers

There are many instances when a stock makes a significant move, but you didn't see it in time to get involved on the first day of the momentum. If the stock experiences a fresh breakout after the first day, and looks like it may have room to continue further, it is not too late to participate. Even though I have seen the second-day strategy that we will learn about in this chapter play out thousands of times, it still amazes me how a prior day AVWAP is often the exact turning point for a stock.

The day after a stock makes a significant move can provide a low-risk, high-probability entry for those who watch the action closely the next morning. In this chapter we'll learn from examples on intraday timeframes of roughly five days. Don't confuse the following information as applicable only to day traders. The principles used to find good entry points can be used for better timed purchases by longer-term participants as well.

When You Think You Missed a Move

Day One: Why the Stock Moved

Don't get hung up trying to figure out the reasons behind the initial move. We're looking at price action. It may be a company reported earnings significantly different than analysts expected, a true “earnings surprise.” Surprise; in earnings news, general news, or from other sources can be thought of as a catalyst for price change that disrupts the balance of supply and demand. For example, if the surprise was good, earnings were higher than expected, many institutions will now want to buy a meaningful position. All this new demand needs to be filled, so the stock surges higher.

On the day of the earnings report, they buy as much as they can, often aggressively, and the stock closes at or near the high of the day. ***When the stock closes near the high of the day, it may be short-term extended (used up too much buy power in the short-term) and in need of a slight pullback (profit taking) the next morning.***

Day Two: Upside Price Action Follow-Through

There are three main players driving the market on day two: profit takers, short sellers, and market makers.

Profit takers making the best of the large move seek to capture profit on some or all of their long position by selling some stock at or near the high at the open.

Short sellers who do not believe the stock can follow through on downward momentum and, sell accordingly. Their sales add downward pressure at the open of the second day.

Market makers who need to purchase many shares on behalf of their clients may try to scare some supply loose by offering the stock lower than the previous day's close. For example, the market maker may have an order to buy 500,000 shares of the stock that day. To fill that order and get the best price possible for the customer, he may short some stock in the pre-market or right at the open. This initial selling gives the illusion the stock is weak and scares some long holders into selling stock to them at lower prices early in the day. The long holders would be doing this to capture some of their profits or cut losses.

The market maker's goal is to buy more shares at a lower price than they sold short the initial shares. If they sold short 10,000 shares, but could purchase 50,000 shares at a lower price than the previous day's close, this would leave them with a net long position of 40,000 shares at prices that are likely to be near the low of the day. Of course, this is a risky game for them. They might end up selling too many shares at a low price and hurt their average execution price at the end of the day.

How to Take Advantage of Price Action (Day Two and Beyond)

Our opportunity comes in the morning of the second, or even a subsequent day for even the third or fourth day. If the stock opens lower than the previous

day's close, we want to be ready to purchase the stock under these conditions:

1. If the stock can hold above the prior day VWAP, see charts on the next page, it shows buyers still have control from the start of the day the move began.
2. After the early morning weakness, the stock stabilizes above the 2-day AVWAP and climbs above the daily VWAP. This tells us the buyers have regained control of the trend for the new day and it is their game to lose.¹

Here are the actions to take:

1. We purchase the stock as it climbs back above the daily VWAP and place our stop below the low
2. If our stop does not trigger, we hold the stock as it increases and raise our stop to under the "most recent and relevant higher-low" for the timeframe we intend to hold the trade.

Short-term entry tactics described above can be used to establish a position in the stock which might be held for a day trade, or even a longer-term trade or investment. ***The more accurate the entry, regardless of the planned hold time, the more ability you have to set tighter stops and the more time you have with momentum in your favor.***

Chart 8.1 provides our first example of a stock with a strong move on day one that gave a low-risk buy opportunity on day two. The blue VWAP begins on day one and continues to be the second day AVWAP the next morning.

On the first minute of day two, the purple VWAP starts. It is the "2nd-day AVWAP." Keep in mind the prior day AVWAP doesn't reflect a full two days until the close of the second day.

In the chart 8.1 below, you can see this stock opened on a gap higher near \$73.50 (1) on the first day. After a little uncertainty in the first ninety minutes, the buyers quickly established dominance by holding above the VWAP.

We know the buyers had control because the price stayed above VWAP on a test just after noon (A) and the slope of the VWAP rose at that same time. The stock then closed near the high of the day at approximately \$73.75 (3).



Chart 8.1 This chart shows a stock over the course of two days using 2-minute candles. The inset shows the beginning of day two using 1-minute candles for greater detail. Chart: TC2000.com

The next day, the stock opened close to \$0.50 lower (4) as early sellers sold prematurely (before the stock had a chance to reveal if sellers had momentum). Savvy participants were ready to purchase shares at the VWAP from day one. You can see, it wasn't a perfect touch (4) on the blue prior day AVWAP and rally, but buyers had been waiting in that area as the stock hovered near the level before price crossed back above both VWAPs.

The initial volatility helped the market makers who were trying to scoop up as many shares as they could at the initial "discount" from the prior day's close. After a couple of minutes, it became apparent there were aggressive buyers waiting at that level. The stock quickly erased the initial down gap, then closed higher by almost one dollar.

If you pay close attention to the stock on the morning of day two, you want to buy if the second-day AVWAP is still rising, and (5) the stock is back above the new day's (purple) VWAP, at the green dot.

A good way to confirm that buyers have regained control on day two is if the day two VWAP is now rising. This may happen as soon as the first three to five minutes of the new day, so you need to pay close attention.

If you purchase the stock when both days' VWAPs are rising, the momentum is in your favor. Once you have purchased the stock (5), the stop can go below the low of the morning (4). If that low breaks, it would mean sellers took control from the start of the move and there would be no reason to continue to hold the stock.

In Chart 8.1, buyers who waited for the stock to turn positive before purchasing it paid approximately \$0.40 higher (6) than those who bought the stock as it crossed above the daily VWAP (5). If buyers (6) used a stop below the morning low, they would not have been able to buy as many shares (based on the use of 1 R-Multiple of risk) as those who purchased at the lower price when the stock reclaimed the VWAP for the day (5).

Buy Red to Green?

Many market participants like to purchase at the point stocks go from negative on the day (red) to positive on the day (green). When a stock is in a negative position compared to the prior day's close, it is "red" and when it is in a positive position compared to the prior day's close it is "green." Notice the day two entry technique will get you in the stock ahead of momentum buyers who like to buy a "red to green" move.



Chart 8.2 The stock above shows the second-day entry technique also applies to low-priced stocks. It is best to buy second-day strength after the initial pullback (detailed in inset). Chart: TC2000.com

As shown in Chart 8.2, when we buy strength after the stock regains upward momentum in the morning of day two, we can get involved before the stock goes "red to green."

Here, the stock traded below the second-day VWAP (green) for about four minutes (1) but held above the blue 2-day AVWAP. On the fifth minute of the second day, the stock crossed up through the (green) VWAP (2), which caused the slope of that VWAP to flatten and then turn higher. Looking at the inset, a purchase near \$5.90 would have been quite reasonable, with a stop below the low of the day (1).

Back to the full chart which includes the inset, the stock went on to a day two intraday high of over \$6.60 which means those who purchased (2) had the potential to take up to \$0.70 (11.9%) that day, or decide to hold for a longer period. For someone who makes the purchase here with the intent of a longer-term hold, they would have the comfort of a great entry from day one of the trade.

Alternative Entry Technique

The next example, in Chart 8.3, shows a “less than perfect” setup because that is how the market works. Not every trade will follow all the guidelines for any strategy you use. **Markets are risky. We pay the price of the unknown in exchange for the hope of a profit. Our edge comes from our strategies and risk management. If you want to experience consistent perfection in your trades, just stay in cash. Perfection does not exist.**

Chart 8.3 is a little trickier. As you can see from the inset box, the stock initially looked like it would hold above both the daily (purple) and 2-day (blue) AVWAP (1). Instead, there was a quick shakeout (2) about five minutes into the trading day. If you had purchased early this may have triggered a stop.

There are a couple of ways we could have avoided the frustration of an early loss. The first technique is to wait for the first five minutes of the day before you enter the trade. The downside is you might miss some profits at the beginning of the day.



Chart 8.3 This stock shows two days of trades with 2-minute candles. Notice the inset where there is a slight penetration of the prior day's AVWAP (blue) before buyers could take back control for the day.
Chart: TC2000.com

The second, and less risky entry technique, is to wait for 5-10 minutes from the open to buy near (3) before you make a purchase. If you waited for a new high to buy, you would have gotten involved near \$15.50 and your risk would have been less than \$0.20 cents per share if your stop was below the low of that day. This is still an excellent entry with limited risk and positive momentum from the onset of the trend.

Day Three and Beyond: Uptrend

The AVWAP can be used well beyond the second day of a trend. In a stock with strong demand, we may see the pattern of early weakness before trend continuation several days in a row as shown in Chart 8.4.

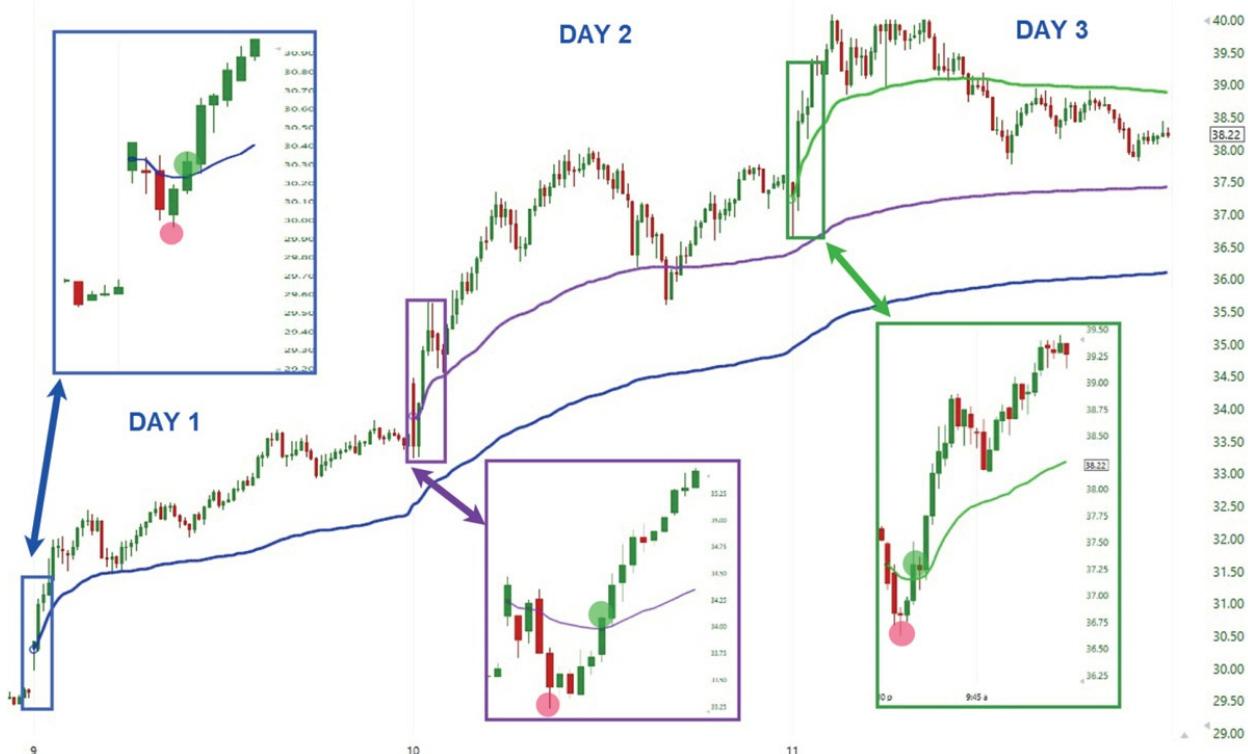


Chart 8.4 This chart shows three days of trades with 2-minute candles. The insets show how a next-day entry can be repeated on days two and three. Chart: TC2000.com

Although the stock did not come down perfectly to the prior day VWAP (purple and green arrows), it showed initial weakness on days two and three, which was then resolved shortly after the open.

The insets on days two and three show the initial stock weakness rid the stock of the early profit takers. As the stock climbed above the daily VWAP (green circles) and buyers had control, this became a purchase opportunity. Red circles mark the price where you place the stop (below the morning low).

Short Sales with Multi-Day AVWAPs

Techniques that work for a stock in an uptrend are also relevant to short sales. We will review some examples of stocks that found Resistance at, or near, a prior day's AVWAP when the stock's trend is lower. These stocks then became low-risk, high-probability short sale candidates.

Market Psychology of the Short Setup

When a stock experiences a sharp move lower on day one and closes near the low of that day, there will likely be sellers in the following day or days. There are also three groups of participants in the short sale market: bargain hunters, short sellers, and market makers.

Bargain hunters (longs) show up in the morning of day two, with the belief that it is a good idea to buy the stock "on sale." These buyers might be eager to add back on the open strength with the thought they missed the low the day before. This increased purchase activity causes the price to go up. In a bout of FOMO, bargain hunters start buying even more, thinking that the stock has reversed course from the previous day's decline. The early strength convinces them that selling was overdone and "it has to go higher, because it is a good company."

Short sellers without conviction in their position might get spooked by the early strength and cover their position in order to avoid profit erosion.

Market makers who have to sell large quantities of the stock that day will help encourage the bargain hunters and short sellers to chase prices higher, by bidding the stock up in the pre-market.

For example, if the market maker needed to sell 750,000 shares they might attempt to create excitement early in the day. They do this by bidding the stock higher in the morning. The market maker may purchase 10,000 or more shares in the morning to drive the price higher so they can sell as many shares as possible at the higher morning prices.

When the stock opens higher, that market maker will then sell the 10,000 shares they purchased and as many additional shares as they can at the more favorable prices to work off the 750,000 share balance they have left to sell.

If the market makers can sell 10% of the orders (75,000 shares) while the stock is above the daily VWAP, they will be thrilled because they know that the balance of their sell order will probably push the stock (and the daily VWAP) lower as the day progresses. Remember, this is "market impact cost" (MIC) as discussed in Part One, Chapter 3. The initial selling gets them a quick start at what is often close to the highest prices of the day. This helps minimize their MIC throughout the rest of the day.

Day Two: Downside Price Action Follow-Through

If you missed the move lower on day one and did not want to short the stock near the first day close, your opportunity comes in the morning of day two. If the stock opens higher than the previous day close, you want to be ready to sell the stock short under the following conditions.

How it unfolds:

1. The stock holds below the prior day's VWAP (see chart below). This shows sellers still have control from the start of the day the move began.
2. After early morning strength, the stock stabilizes below the 2-day AVWAP, and price drops below the daily VWAP. This tells us the sellers have regained control of the trend for the new day and it is then their game to lose.
3. We sell the stock short as it drops back below the daily VWAP and place our stop above the high of the morning.
4. If our stop doesn't trigger, we hold the stock and lower our stop to just above the "most recent and relevant lower-high" for the timeframe we intend to hold the trade.

Short-term entry tactics like this can be used to establish a position in the stock which might be held for a day trade, or even a longer-term investment.

Charts 8.5, 8.6, and 8.7 show some examples of how we can use this information to identify low risk/high probability entries into short positions.

Chart 8.5 is an example of a stock which experienced strong selling on day one, where it dropped from \$61 to a low of \$57.



Chart 8.5 This chart shows a stock over the course of two days using 2-minute candles. The inset shows the beginning of day two using 1-minute candles for greater detail into the short sale. Chart: TC2000.com

The next day, the stock opened higher, initially looking like buyers might gain back control. Once it dropped below the blue AVWAP from day one and the purple daily VWAP (green circle), it was clear the sellers were back in control.

For those who resisted FOMO buys and kept their focus on price action, the cross back below those two AVWAPs marked an excellent short sale opportunity.

As always, once in the stock, the stop would go above "the most recent and relevant lower-high," which was above the morning high at \$59.50. As the stock continued lower through the day, it would be prudent to cover part of the position profitably to reduce the overall risk and lower the stop on the balance to a level appropriate to the anticipated hold time.

Sell Green to Red?

Notice the day two entry technique will get you in the stock ahead of the momentum buyers who like to sell short a "green to red" move. Many market participants like to sell short at the point stocks go from positive at the start of the day (green) to negative on the day (red). When we short as the stock

crosses below the daily VWAP, it can get us into the stock well before the net change traders.

Chart 8.6 shows a less than perfect example to demonstrate some of the nuances of the setup.

As I've often said, if you only look for the "cookie cutter entries," you will miss many nuanced opportunities for accurate entries into long and short positions.

Chart 8.6 shows day one with a lot of volatility near the open. If you waited to enter the trade as the stock dropped below the day one VWAP (A), you would have been able to participate in the initial weakness with a stop above the first lower-high shown (B) and then lower the stop accordingly.



Chart 8.6 A 2-minute chart for two days. The green dots represent three different short sale entry options. Chart: TC2000.com

On day two, there were three possible short entry points represented by the green dots:

1. As the stock dropped below the daily VWAP (purple).
2. As the stock dropped below the two-day AVWAP (blue).
3. As the stock went "green to red" (opened higher in green and became red with the net negative change).

Day Three and Beyond: Downtrend

In a stock with strong supply, we may see the pattern of early strength before trend continuation several days in a row, like in Chart 8.7.



Chart 8.7 This bearish chart is constructed of 5-minute candles. It shows the short sale entry areas with the green dots on days one, two and three. Chart: TC2000.com

There will be times when a stock in a strong downtrend finds supply at the previous days' AVWAPs. The stock in Chart 8.7 gapped lower on day one (A) and initially found support at the VWAP (green arrows). Later in the day, the stock dropped below the VWAP (blue) and that VWAP then became resistance (red arrows) and the stock closed near the low of the day.

On day two, the stock gapped up (B) and showed some initial volatility and then dropped below both the daily (purple) VWAP and the (blue) AVWAP from day one. The green dot on day two shows an excellent short sale location with a stop above the morning high (red arrows).

On day three, the stock gapped higher again (C) and ran right into the AVWAP from day one (blue). That marked the high of the day. After about ten minutes, the stock dropped back below the new two-day (purple) AVWAP and the daily (black) VWAP. A short sale here (green dot) took advantage of the failure of the early strength and then benefited from strong selling pressure.

It is always a good idea to cover part of the position when the stock experiences a quick selloff, and then lower your stops on the balance to a level that doesn't allow the position to turn to a loss.

Risk Management

When a stock makes a strong move on day one it can be tempting to get involved in the trade at the start of trading the next morning. Rather than jump in with no strategy and hope the trend will continue, we use the day two AVWAP in conjunction with the daily VWAP to identify the lowest risk entry for trend continuation.

A disciplined approach like this allows us to get involved in the trade at the lowest risk point. Because we enter the trade at the start of new momentum we also reduce the risk of tying up our capital in a stock as we wait for it to move. Also, this approach gives us greater profit potential.

¹ We refer to it as the 2-day AVWAP, but it is not a full two days. As an example, at 10:00 a.m. Eastern on day two, it is the AVWAP of one day, plus 30 minutes. It would be a 420-minute AVWAP (390 minutes from the previous day plus 30 minutes of the new day).

KEY TAKEAWAYS

- The previous (or several days) AVWAP is an important reference level for stocks that experienced a momentum move.
- The more accurate the entry, regardless of the planned hold time, the tighter you can set your stop, and the more time you have with momentum in your favor.
- This strategy will help you catch more winners that have broken out (or down) at the beginning of a multi-day momentum campaign.
- Whether you use this technique for a day trade, multi-day, or longer hold, it can help you enter a trend at the lowest-risk point possible.
- Day two (and three) AVWAP entries provide an advantage over net price change traders (red-to-green buyers and green-to-red sellers).
- Because we enter the trade at the start of new momentum we also reduce the risk of tying up our capital in a stock as we wait for it to move. Also, this approach gives us greater profit potential.

CHAPTER 9

AVWAP GAP TRADING

“In a time of rapid change, standing still is the most dangerous course of action.”

—Brian Tracy

Chapter Objectives

1. Identify and understand the four different types of gaps
2. Avoid chasing a stock that gaps
3. Disciplined strategies for trading stocks that gap

A gap represents a sudden shift in a stock's valuation that leaves an area on the chart without any trade activity. They are easily seen when successive candles do not touch or overlap. A gap is a simple representation of a rapid shift in the supply/demand dynamics for the stock. A gap higher (bullish) occurs when the price opens above the high of the prior day. A gap lower (bearish) occurs when the price opens below the close of the prior day. See Chart 9.1 for examples of bullish and bearish gaps.

Four Types of Gaps

All price gaps are not the same, there are different classifications of gaps. This chapter will discuss why gaps are important to recognize and understand, as well as specific AVWAP strategies to trade them. There are four commonly accepted gap classifications: Common, Breakaway, Continuation, and Exhaustion.



Chart 9.1 This stock shows examples of gaps up (green highlights) and down (red highlights) on a daily chart. Chart: TC2000.com

Common Gaps

A common gap occurs regularly in a stock because of normal trade imbalances from day-to-day. Minor news, such as an analyst's upgrade or downgrade, may cause a common gap, or it could just be a buyer or seller who is motivated by factors known only to them.

Common gaps do not lead to longer-term trend shifts. Common gaps are typically “filled” or “closed” when trades occur in the prior gap range. Common gaps typically take no longer than a few days to fill. Chart 9.2 shows common gaps higher and lower.

In Chart 9.2, the blue circles represent the common gaps. The highlighted area shows how the smaller first gap (1) filled almost immediately, while gap (2) filled the next day (blue arrow). Gaps (3 and 6) did not get filled for the time shown on this chart. Most common gaps get filled.

Common gaps offer excellent short-term trade opportunities, especially in a stock where there is an existing Stage 2 Uptrend or Stage 4 Downtrend (See the Market Structure Chart in Appendix A). For stocks stuck in Stage 1 Accumulation or Stage 3 Distribution, there is typically no edge to trade a common gap.



Chart 9.2 This 30-minute chart shows common gaps that appear when there is an order imbalance at the open, but it is not a significant enough event to lead to a longer-term trend. Chart: TC2000.com

Chase the Gap or Wait for AVWAP?

In 2008, I wrote one of my first articles about the AVWAP, “Chase the Gap or Wait for VWAP?” Over the last two decades, the strategy outlined in that article has served me well and I still use it today.

The article laid out techniques to trade stocks with a common gap. This strategy provides a low-risk entry into a stock which has experienced a gap. When a stock gap is higher, we are told there are two choices: buy the open strength and hope it holds or buy as the stock pulls back from the gap strength. A third option, wait for the AVWAP, is the technique we explore by using a one-minute timeframe. Keep in mind, the same concepts apply to the longer timeframes with the AVWAP from the gap.

To trade a common gap successfully we need to consult shorter, intraday timeframes. Chart 9.3 is constructed of 1-minute candles. The green highlighted area shows the gap higher from the previous day close near \$99/share (2), up to an open price of \$102.75. Anyone who purchased the stock at the open of the first few minutes of the day had to choose between two options.

The first option is to hold the stock as it plummeted back down to \$99 in the first few minutes (2), or to stand aside, let the stock settle down and wait for evidence the buyers were back in control before getting involved.

The second option was to wait for the stock to rally back above the daily VWAP (1). This is where the buyers were back in control of the stock for the day. A purchase at this point would put you in the stock after the shakeout. If the move was to fail after entry, a stop under the low of the day (2) would limit any loss. A stop would go under (2) because it is “the most recent and relevant higher low.”



Chart 9.3 This 1-minute chart is a bullish example of how to use the “chase the gap or wait for VWAP” strategy. Chart: TC2000.com

The stock continued higher throughout the day and the VWAP found buyers on a quick test later in the day (3). It is up to the trader to decide if the stock is worth holding for more than a day trade. This decision would depend on the trend of longer timeframes, the condition of the overall market and personal risk tolerance levels. My preference is to take partial profits and let the winner run.

In Chart 9.4, we see the opposite, a stock which gapped lower, rallied for about 45 minutes and then broke below the VWAP of the day.

Chart 9.4 is a 1-minute chart of a stock which closed on day one at approximately \$105.30 (1). The stock gapped lower (blue highlight) to open at about \$104.60 on day two.

If you had shorted this stock at the open, you would have shorted near the low of the first hour of the day, \$103.90 (2). It was worse for the person who shorted at the open, because the stock went positive on the day for a few minutes (3) and that might have caused them to panic and cover the short at a loss.

Rather than short the open, it makes more sense to see if the buyers fail to take control, and then short the stock once the stock drops back below the daily VWAP (4). When you avoid the initial choppy action in the stock, you are more likely to enter the trade at the correct time, with a logical place for your stop being above the high of the day (3). A good entry goes a long way in the ability to hold the stock for longer timeframes.

Of course, there will be times when the stock gaps higher and continues to rally straight up through the course of the day, or gaps lower and continues to sell off for the day.



Chart 9.4 This is a bearish example on a 1-minute timeframe of how to use the “chase the gap or wait for VWAP” strategy. Chart: TC2000.com

No trade method will get you into 100% of the winners. That should not be your goal. The goal is to find the low-risk, high probability trades and a large part of that comes from the confidence in your approach. As it is said, “it is better to be on the sidelines in cash, wishing you were in, than it is to be in the market wishing you were out.”

Gap/AVWAP Several Days

Sometimes a stock will experience a large gap when it might take a few days for the market to digest the gains or losses before the primary trend resumes. People who get excited about the news will chase the stock on the open and pay higher than necessary, as seen in Chart 9.5. On the first day, the stock gapped from \$29.60 to \$30.40 (blue highlight). We anchor our VWAP to the first candle of the day (1, see inset for detail).



Chart 9.5 This chart uses 2-minute candles for the two days of trades shown. Chart: TC2000.com

At (2) the stock cleared the AVWAP and it would make sense to purchase the stock at (\$30.30) with a stop below the low of the day (3).

After a quick surge up to \$32.50, the stock experienced some profit taking. It found enough demand at the VWAP (4) to provide support for the next leg higher. The stock finished near the high of the day.

If you missed the entry on day one, the stock gapped higher again on day two (blue highlight) and you should set your VWAP anchor to the first candle of the day (5). After a couple of minutes below the purple AVWAP, the stock crossed back up through the VWAP (6). A purchase (6) would have made sense, with a stop below the low of the day (7). As we know, all trades will not be winners and this trade would have been stopped out with a small loss.

About 10 minutes later, the stock crossed back up through the VWAP (9). It can be a frustrating experience when it crosses back above the AVWAP so soon after a small loss. The taste of the prior loss might have prevented you from a logical new entry (9).

If you stuck to your strategy, you would purchase the stock again and set the new stop under the new low of the day (8). This buy turned into a nice winner as it rallied from the purchase price of \$34 up as high as \$38 later that day.

After it hit the high of \$38, it pulled back to the VWAP (10) and briefly bounced before it made a lower high and broke below the VWAP (11). If you used this level as a stop, it would have resulted in a sale at \$36.25, a day trade gain of \$2.25 or 6.7%.

If you held the stock from the day one purchase price of \$30.30 (2), you would be in a stronger position and might have trailed your stop up under the blue AVWAP from day one. This would have kept you in the stock with a stop near \$35 at the end of day two. Another alternative would have been to allow the initial volatility of day two to settle down and then raise your stop on half the position to under the day two VWAP (purple) and the balance below the blue AVWAP from day one. With this strategy you would have sold half the stock from the purchase of \$30.30 at \$36.25 (11) and to continue to hold the balance with a stop under the day one blue AVWAP at \$35. There is never one best way to set stops, only a best way for your risk tolerance and your expected hold time.

Breakaway Gaps

A breakaway gap occurs when a stock breaks free of a longer-term consolidation (Stage 1, Accumulation or 3, Distribution), usually with a large increase in volume. The breakaway gap acts as an ignition to momentum that can last months to years. An intermediate to longer-term trader or investor will want to learn to recognize a breakaway gap because of the longer-term implications for the stock. When breakaway gaps occur with a news catalyst such as an earnings surprise, it is more likely the stock will continue to trend in the gap's direction than it is to fail. If the news that motivated the gap is unexpected and meaningful, it is more likely to lead to a sustained trend.

Upside Breakaway Gaps

Chart 9.6 shows a breakaway gap that led to a longer-term trend. The large gap (1) showed a group of motivated buyers. We anchor our AVWAP to that point. A few days after the initial gap, the stock briefly pulled back and found buyers (2) at the AVWAP anchored from the gap. The support at the AVWAP showed a strong appetite for the stock and a purchase (3) made sense because it made a higher-high after the AVWAP was tested, with a stop below the pullback low (2) because it was the "most recent and relevant higher-low."



Chart 9.6 Notice how the momentum remained strong after the breakaway gap (1) for over one year. Chart: TC2000.com

As the stock continued higher, it wasn't until 15 months after the initial gap that the stock undercut the AVWAP (4). A holder from the purchase (2) until it broke below the AVWAP (4) recognized a profit of approximately 33% (\$20.50 to \$27.50). **Stops will never get you out at the high, but they will get you out when the supply/demand equation from the original catalyst changes.**

It is unusual for breakaway gaps to be filled because they represent a powerful shock to the supply/demand equation. The news motivator and increased volume confirm a large and immediate interest by institutions who compete to put large amounts of money to work in the stock at the same time. Many times, people who learned "all gaps get filled" will wait for a purchase at a lower price, which never happens. This group will often become buyers later in the cycle when they can no longer stand aside and watch it continue to go higher without them. They become FOMO buyers, often at the worst times when prices are far from the start of the move.



Chart 9.7 This chart is constructed with 15-minute candles, it shows the intraday action of a stock that experienced a breakaway gap. Chart: TC2000.com

The strongest stocks will continue higher for several days or longer before they experience a price or time correction. In these cases, if you do not buy on the first day of the move, you may miss out on the initial powerful surge. If you miss the initial move, there are often (but not always) better opportunities to buy the stock on strength after a pullback. It might take a couple days of back-and-forth action around the AVWAP before buyers regain control. A reclaiming of the AVWAP doesn't always lead to immediate continuation. If your stop does not get triggered, be patient and trust your stop. Allow the market to prove itself. Take comfort in "a trend once established is more likely to continue than reverse." The stock in Chart 9.7 shows it how it took a couple of days to absorb selling from profit takers before the stock continued higher.

The blue shaded area shows the large gap from \$18.65 to \$22/share, a gap of 18%. Clearly, there was a catalyst that got participants excited about owning the stock. We anchor the AVWAP from the first candle of the gap (A). The buyers on the open were quickly overwhelmed by owners who wanted to lock in their large overnight gains and the stock continued lower over the next couple of days. At (1) the stock rallied up to the AVWAP from the gap and got rejected.

The buyers took control (2) as the stock cleared the AVWAP from the gap. A purchase at that point made sense with a stop under any of the lows (3, 4, or 5) depending on personal preferences and risk tolerance. As with all trading, there is no right circumstance for every trader. I will often use a tighter stop or sometimes stagger my stops.

A staggered stop approach might be to use stops on 1/3rd of the position under each of those lows. Points (6) and (7) show how the buyers kept the price above the gap and prevented the price from breaking the AVWAP the next day. This type of action would encourage me to keep my stop under (3). If the stock failed to hold the AVWAP, my concern would be it gives up the entire gain. Once the stock was back above \$22/share, stops might be raised up under (7).

Downside Breakaway Gaps

A breakaway gap which starts or accelerates a downtrend is a sign of significant trouble and shows lower expectations for the stock in the future. If you find yourself in the unfortunate position of owning one of these stocks, it is usually best to cut the loss quickly and move on. It is better to accept the loss and discomfort right away rather than wait for more serious price weakness to set in. The stock is not a "bargain on sale," it is a broken stock and if, "they don't scare you out with the initial gap lower, they will often wear you out," as the stock will need a lot of time to heal before it heads higher again. In chart 9.8 we see an example of a downside breakaway.



Chart 9.8 The blue highlighted areas show two successive breakaway gaps on the days earnings were reported. Chart: TC2000.com

This stock experienced a large gap lower after an earnings report, we set the initial anchor to the first day of the gap (1). As we learned from using shorter timeframes, the stock will often trade for a few bars (in this case days) below the AVWAP before a brief rally above the AVWAP (2). This rally would have put the short sellers, who sold during the first couple of days, in a position of losses. They may have covered their positions and missed out on the larger move lower.

It wasn't until about 15 days after the initial gap that the sellers regained control of the stock (3) as the stock broke back below the AVWAP from the gap. A short sale there would have made sense with a stop above the high from the gap (4) or above the high of the consolidation of the prior six days shown (5). This stock continued to show weakness over the following months and the next quarter earnings report motivated a fresh round of fearful sales (6). Chart 9.9 shows another example of a downside gap, in this case on a 15-minute timeframe.



Chart 9.9 The blue shaded area shows the downside breakaway gap on this intraday timeframe. Chart: TC2000.com

Here (9.9) is a bearish example of a breakaway gap. The blue shaded area shows the gap from \$33 down to \$28 (approximately -15%). When the stock gaps lower, we anchor our AVWAP to the start of trading after the gap (1). The stock continued down as low as \$25.50 that day, which put the “dip buyers” in a losing position with no reasonable place to set their stop. People who shorted the stock seemed to have a good trade for the first day, but on the second day, buyers gained control as the stock made it back up through the AVWAP (2). Later that day, and into the next day, buyers defended the stock and bought pullbacks to the gap AVWAP (3, 4, and 5).

It took a couple of days to digest the news before the stock continued lower. At (6) the sellers took back control of the stock as the stock broke below the gap AVWAP. This was the correct place to short the stock because price evidence told us the sellers were in control again.

Of course, we did not know the stock would continue lower, so we had to set a stop to protect against a reversal. The lower-highs we could use to place our stop above are (7, 8, and 9). Just as in the previous long example, we could have used a staggered stop approach. As the stock continued lower, the job was to manage the stops above the most recent and relevant lower-highs. From there, the rest is up to the market.

Continuation Gaps

A continuation gap is also known as a running or measuring gap. We find these gaps in stocks where there is an established trend that likely began with a breakaway gap. Because the trend already exists, these gaps represent a continuation, and often an acceleration, of the trend. It is common for earnings reports to be the catalyst for these gaps. Like the breakaway gap, the continuation gap is not always filled. It will frequently leave behind those who wait for the gap to be filled. The charts that follow will make that clear.

The continuation gap offers some of the best opportunities to participate in a trend if you weren’t involved with the earlier move. Most long holders of the stock feel good about owning it and don’t want to sell shares. This creates tight supply, and with increased demand, these stocks are often in the “sweet spot” of their trends. During this phase, there is little volatility and short-term pullbacks are bought up quickly. Because these gaps typically occur somewhere near the midpoint of a major trend cycle, continuation gaps are also known as “measuring gaps.” They are found somewhere near the middle of a full-trend cycle.

Exhaustion Gaps

Exhaustion gaps occur near the end of a major trend. The stock will reverse the direction of the gap and close at the extreme lower end. When a stock that

has been in an uptrend and has experienced a large percentage move, the company will often report positive news to cause a gap. Initial reactions to this news motivates the people who have been on the sidelines who have been waiting for a pullback before they get involved to give into FOMO and buy the stock. The people who have owned the stock and enjoyed the large gains see the opportunity to sell their highly appreciated shares to the FOMO buyers. They use the liquidity from the good news to sell large quantities of stock near the highs. The sales into “good news” that drove the stock higher, will catch a lot of participants off guard because the stock sells off on “good news.” The market discounts the past and trades on future expectations. Those who purchase the stock in anticipation of good news will sell when the news is released. Good news comes out at tops and bad news comes out at bottoms. If you trade off the news, you may find yourself delivering newspapers.

The stock in the daily timeframe (9.10) shows three distinctive gaps: breakaway, continuation, and exhaustion.

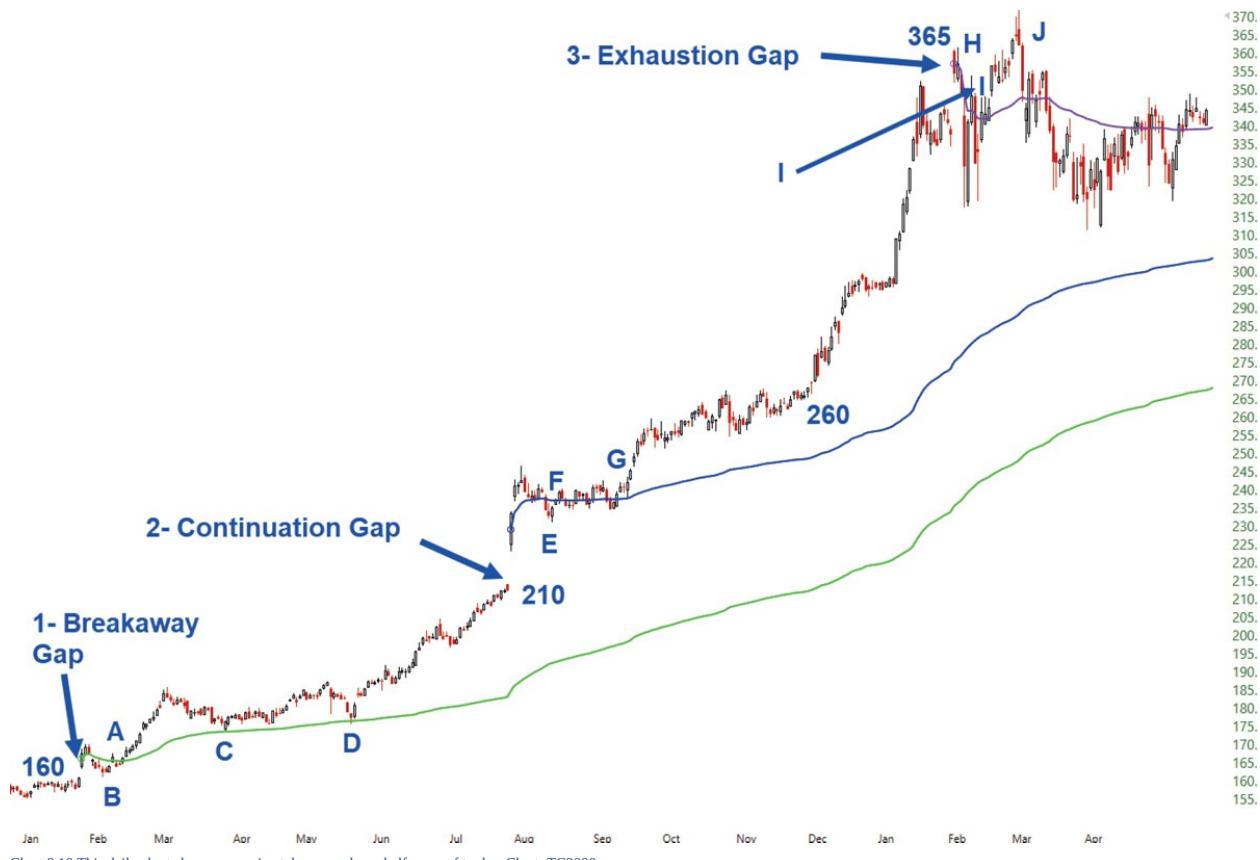


Chart 9.10 This daily chart shows approximately one and one-half years of trades. Chart: TC2000.com

1- The breakaway gap occurred in January at \$160. This gap came close to closure but did not get filled. The opportunity to trade this stock came (A) when the stock made it back above the AVWAP from the gap. A stop would have been under the pullback low (B). Notice how the AVWAP (green) from the gap found buyers on the pullbacks at points (C and D).

2- The continuation gap (2) occurred at \$210 in August. This was a large gap as the market had already experienced a large run (which robbed the market of supply) before the gap. There were some short sellers who felt trapped by the higher prices, and they paid even higher prices in order to minimize their losses as the stock climbed higher. After about a week and a half, the stock finally broke below the new AVWAP (blue) from that gap (E) as profit takers stepped in. The supply generated by these profit-taking sellers was quickly overwhelmed as demand from new buyers pushed the stock back above the gap AVWAP (blue) just a couple of weeks later (F). This is where it made sense for new positions to be purchased, after the shakeout below AVWAP. A stop on the new purchase (F) would be placed under (E). It took almost a month for the stock to find renewed upward momentum (G) but it was worth the wait because the stock experienced a major run from that level.

This “measuring gap” is used to give a trader an idea of what would be a reasonable estimate (or measure) of where to expect the next major activity level. The measuring gap gets its name from the tendency for a rally, which starts at a continuation gap, to match the gains the rally has already shown between the breakaway gap and the continuation gap. Put another way, you can get a good projection of the remaining potential gains between the gap and the next major activity level.

In this chart, the breakaway gap ran 50 points (from \$160 to \$210), so a minimum upside target starting at the continuation gap at \$210 is \$260 (\$210 + \$50). This stock clearly exceeded that level and shows why it is best to trail stops up under higher-lows for an exit than it is to exit at a price target.

3- The exhaustion gap. This gap occurred in January of the following year at approximately \$355. We never know if a gap is the exhaustion gap until after the fact, when the stock cannot continue higher. Yet there are clues that tell us the long run up from \$160 is in jeopardy of tapering off. Unlike the breakaway gap, the exhaustion gap on this chart immediately reversed course (H) after the gap higher. At (H) there were sellers waiting for an opportunity to sell, and the gap higher turned out to be their opportunity to do so. After a week of downward pressure, the stock stabilized above the AVWAP (purple) (I) and went to make a new high (J). After that high failed to hold, the stock made no upward progress for the next couple of months. The stock was

"exhausted" and needed to rest.

In chart (9.11) we see the same three distinctive gaps on a daily timeframe, this time with a stock in a downtrend.

1- The breakaway gap occurred at \$1200 and it continued lower for four days before it reclaimed the AVWAP (red). When the stock dropped below the gap AVWAP (A) the sellers were back in control and it made sense to sell the stock short with a stop above (B). This would have been a difficult position to hold as the price crossed back and forth above the AVWAP and (C) it broke above the previous high it had made approximately two weeks earlier.

2- The continuation gap occurred at \$910. After a couple of days of trades above the gap AVWAP (red), it broke lower (D) and remained below that AVWAP (blue) through the end of the chart. The AVWAP (blue) from the gap was not tested from underneath, which showed how motivated the sellers were. Using the measuring technique for this gap we would come up with a minimum downside target of \$620. This target is achieved by subtracting the continuation gap level of \$910 from the breakaway gap level of \$1200, which is \$290. We then subtract \$290 from \$910 ($\$910 - \$290 = \$620$). Clearly, this measurement is only a guideline since the stock touched the \$620 level about a month after the gap and it continued lower. We want to have an approximation (measurement gap) of where the stock could go, but stop losses that trail down above the most recent and significant lower-highs will keep you in the trade longer.

3- The exhaustion gap occurred at \$430, after a large drop and prices continued to decline. Do not look at exhaustion gaps as a reason to trade against the primary trend. Instead, an exhaustion gap can mean the beginning of a Stage 1 Accumulation, the stock is just "exhausted" and needs time to heal. This is mentioned because many people try (unsuccessfully) to trade against the trend in an attempt to buy the stock "at the low."



Chart 9.11 This daily chart shows approximately fourteen months of trades. Chart: TC2000.com

Psychology: Don't Focus on Labels

Too many people get hung up on labeling the type of gap that occurred. The right way to think about gaps is to recognize what they represent in terms of a sudden supply/demand shift rather than label them. Sometimes you will think a gap might be an exhaustive gap when it turns out to be a second or third continuation gap. The important thing to recognize is the opportunity the gaps present for trend continuation or reversal and trade them appropriately. There is no more objective tool than AVWAP from the gap to measure if buyers or sellers are in control.

Risk Management: Gap Anomalies

There are some equities and ETFs that experience gaps nearly every day:

- Thinly traded stocks (little trade volume) are prone to daily common gaps.
- Stocks that trade American Depository Receipts (ADRs) gap nearly every day because they must open at the same price in the United States that they trade on their primary overseas exchange.
- Commodity related ETFs such as oil and gold trade a nearly 24-hour market. The price change for the commodity outside of the NYSE hours needs to be adjusted at the 9:30 a.m. NY open. This change results in a gap nearly every day.

Because ADRs and commodity ETFs gap nearly every day, it is difficult to manage risk. My preference is to not trade them. There are plenty of other stocks and ETFs where risk management is easier. Chart 9.12 shows the daily gaps in an ETF.



Chart 9.12 Only a few of the gaps are circled in the daily ETF chart above. Chart: @TrendSpider

As you consider a trade set up, take a closer look at how frequently the stock gaps and decide if you can reasonably manage risk in the trade. This is part of recognition of “the personality” of the stock and if it makes sense for you to trade. Commodity related ETFs gap nearly every day because the commodities they represent are traded nearly 24 hours per day.

Is It Really a Gap?

Most of the time, when a stock gaps higher or lower at the start of trading, it does not represent the first trades of the day for the stock. Stocks that report news outside of regular trading hours (RTH) will begin to trade the moment the news is announced in the pre- or post-market trading hours. The extended hours (or EH) of pre- and post-market trade availability differ between brokerage firms. If it is important to you to trade extended hours, find a reputable brokerage firm with the longest hours available to trade.

Always be sure to check a chart which includes pre- or post-market trade data when you trade a stock with a gap. If the stock was unusually active in the extended hours, it is helpful to anchor a AVWAP from the start of the extended hours trades. When you use the extended hours AVWAP along with the regular trading hours AVWAP, this combination is helpful to find key levels for the stock. This type of analysis applies mainly to day trades.

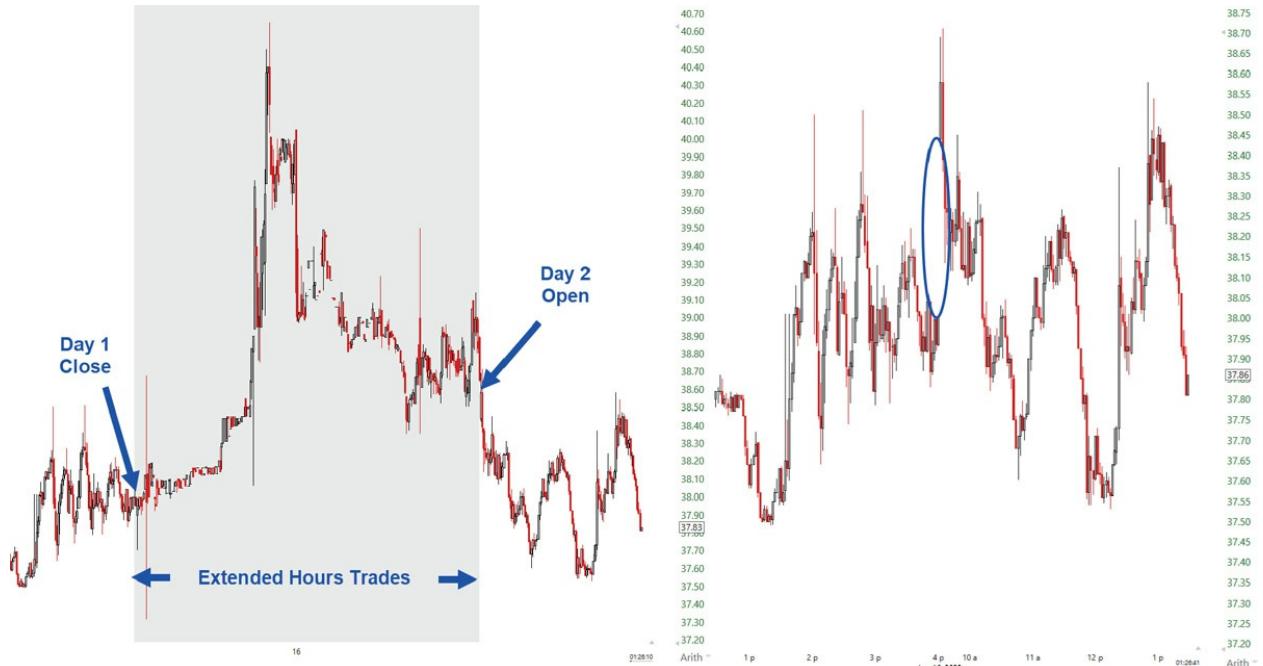


Chart 9.13 The chart on the left shows trades including extended hours (gray shaded). On the regular trading hours chart on the right, the extended hours period looks like a gap on the chart. Chart: TC2000.com

Charts in 9.13 show the same stock with extended hours (EH) on the left and regular trading hours (RTH) on right. On the left, you can see that trades occurred at all the levels in between the gap level and even well above the high of the RTH trades. On the right, there is a clear gap from the close of day one to the opening of day two. I usually only reference the extended hours trades if the stock traded unusual volume during extended hours.

Futures versus ETFs

Like the RTH for equities, major ETFs like the SP500 ETF (SPY) also trade in the overnight (ON) session of the SP500 Futures. On days when the SPY opens with a large gap, it's helpful to study the AVWAP from the start of the overnight session for the futures. There will often be important levels where the futures market may find buyers and sellers at the ON AVWAP, but the level may not be visible on the RTH SPY because there is not as much "price memory" from the start of the RTH. The relationship between the SPY and SP500 Futures is important if you trade either of those markets on a short-term basis.

Dividends

When a cash or stock dividend is paid to shareholders, the amount of the dividend is removed from the share price. If a stock closes the day at \$33/share and the next day the company pays their shareholders a dividend of \$0.50/share, the price of the stock is adjusted lower by \$0.50/share. The stock price adjustment is reflected with the share price opening at \$32.50 (assuming there are no other supply and demand imbalances that impact the opening price). The lower open for this stock will cause a gap on the chart. These gaps are not due to an ordinary imbalance in supply and demand, so I do not consider these worthy as a trade candidate on the day of the dividend.

What about “Fading the Gap”?

When people “fade the gap” it simply means they want to take a position on the other side of the trend or direction of a gap. They want to short a stock that gaps higher or buy a stock that gaps lower. The focus of this book is to trade with the trend, to buy stocks in uptrends, sell short stocks in downtrends and avoid the neutral times (Stages 1 and 3). You always want to give a trend the benefit of doubt that it will continue for a longer timeframe. ***When a stock in an uptrend gaps lower, they can be great buy candidates. Stay focused on the trades in relation to the daily VWAP as well as the important AVWAPs from longer timeframes.*** Gaps occur in all stocks at some point, so it is important to be prepared with an objective approach to handle them.

Risk Management: Placing Stops

Perhaps the most difficult part of any trade is the management of the stops while the trade is working in your favor. In the examples, I have outlined several scenarios for how to go about placing and updating stops. As with everything in the market, only hindsight is 20/20.

To compensate for the risk of the unknown, my preference is to use several stops. The first one is the tightest (meaning smallest dollar increment) because it protects the initial capital. How tight you set the stop depends on your personal risk tolerances. I set the second stop after the stock has moved in my favor. I set the second stop tightly enough that I can lock in some gains if the stock reverses, which lowers the overall risk. I set the third stop to give the stock a little more “room to breathe.” This (hopefully) prevents getting stopped out before it turns into a larger winner.

KEY TAKEAWAYS

- Gaps occur on a regular basis; without a strategy we are prone to FOMO trades.
- No trade method will get you into 100% of the winners. That should not be your goal. The goal is to find the low-risk, high-probability trades and a large part of that comes from the confidence in your approach. As it is said, “it is better to be on the sidelines in cash, wishing you were in than it is to be in the market wishing you were out.”
- Stops will never get you out at the high, but they will get you out when the supply/demand equation from the original catalyst changes.
- Day two entry techniques allow us to participate in a stock when we might have normally missed the day-one gap opportunity.
- Be aware of extended hours trading in gap stocks.
- Unusual circumstances such as dividends, ETFs, and futures create special gap situations.

CHAPTER 10

THE SHORT SQUEEZE

“The average trader is naturally a chronic bull. It is human nature to prefer optimism to pessimism.”

—Philip Carret

Chapter Objectives

1. Understand short interest and the short interest ratio
2. Identify the price levels and trends of where short sellers are involved
3. Understand why short squeezes occur
4. Identify two types of short squeezes; knee-jerk and structural

The appeal of selling short is easy to understand because stocks can drop much faster than they rise. There are unique risks involved when you sell a stock short. The biggest risk to a short seller is that the stock price rises instead of drops. A rising price in a heavily shorted stock can lead to dramatic upward price movement as losses mount in the accounts of those who are short. The short sellers magnify the upward price movement as they buy the stock to try to minimize their losses. This can lead to dramatic upside price moves where trend traders can profit.

This momentum creates a double demand (new long purchases and shorts covering) for a stock when there is not much supply offered. Additionally, supply is often tight for a stock in a strong uptrend as holders want to hold their profitable position. When the stock rises rapidly, the shorts lose money, and as they try to cover their bearish bets, they compete for supply from new longs. Because there is extra competition to buy the stock, the shorts feel pressure from mounting losses, and they become “squeezed.” Before we explore the dynamics of a short squeeze, let’s cover some terminology and learn how to interpret short sale data.

Short Interest

“Short interest” refers to the number of shares sold short and not covered (bought back). Because these shares are still open short positions, they represent a source of future demand. The short sellers either; buy the stock at lower prices to lock in gains, or they buy at higher prices to minimize losses.

It is useful to know when a stock is sold short. Exchanges mandate that brokerage firms accurately keep and report the numbers of shares sold short and not yet covered. Twice each month, the firms tally all short sales and send the data to the various exchanges. The exchanges then combine the firms’ data and publicly disseminate the information.

FINRA releases the number of shares sold short twice per month. The number reported to the public is never the real time number. In fact, it is a minimum of two weeks old. For instance, the total number of shares for stocks as of January 15 (in the table below) is reported to FINRA by January 20 and is released as public information on January 27. That means the stocks continued to trade for a full seven business days, or longer, before FINRA releases the information to the public. As we will see, the information is still useful to determine the trend of short sales and the price levels where the short sellers are involved.

Short Interest Reporting

Overview

Notices

Guidance

News Releases

FINRA requires firms to report short interest positions in all customer and proprietary accounts in all equity securities twice a month. All short interest positions must be reported by 6 p.m. Eastern Time on the second business day after the reporting settlement date designated by FINRA.

See the schedule of reporting dates below.

Short Interest Reporting Dates

Settlement Date	Due Date ¹	Publication Date
January 15 (Friday)	January 20 - 6 p.m. (Wednesday)	January 27 (Wednesday)

1. All referenced times are reflected as Eastern Time.

Table 10.1 Example of the short interest reporting dates. Table: www.finra.org.

Short Interest Ratio/Days to Cover

The Short Interest Ratio (SIR), or days to cover, is the number of shares sold short (short interest) for an individual stock, divided by its average daily trading volume over the previous two weeks. We interpret the SIR as the number of days it would theoretically take to cover (buy back) the shares that were sold short based on the average daily volume. I use the term “theoretically” because the shorts are not the only participants in the market.

Short Interest

SETTLEMENT DATE	SHORT INTEREST	AVG. DAILY SHARE VOLUME	DAYS TO COVER
01/15,	13,918,435	2,047,326	6.798348

Table 10.2 Short interest shares, average daily volume, and days to cover. Table: www.nasdaq.com.

Table 10.2 shows the number of shares sold short was 13,918,435. At the time of the report, the average daily volume for this stock was 2,047,326. When we divide the short interest by the average daily volume, we get the number known as “Days to Cover” (DTC). We also refer to this as “Short Interest Ratio” (SIR). In this example, the SIR equals 6.8. This means that if the shorts wanted to cover their position in full, it would take them just under seven days if they were the only volume in the market. Of course, it would actually take a lot longer to buy all that stock back since other traders are also actively buying or selling the stock.

The higher the SIR is, the more difficult it is to exit a short position and the greater the upward impact will be on price. I consider an SIR of 5 or greater to be significant enough to think a short squeeze could develop in the stock.

The Effect of Volume on SIR

If a stock had a short position of 4,800,000 shares and an average daily volume of 800,000, the SIR would be 6.0. This means it would take six full days of average daily volume for the short sellers to cover their bearish bets. If the same stock traded an average of 2.4 million shares per day, the short interest for the stock would be 2.0, or two days to repurchase. Using the same stock, but with an average daily volume of just 200,000 shares, the SIR would then be 24, meaning it would take 24 days of buying to cover the positions.

When their short position is at a loss and the stock has strong upward momentum, the short sellers feel “trapped” in their losing position. They know their

buying will add to the upward momentum. From a “trapped” short’s standpoint, the lower the SIR, the better as their buys will not have as large of an impact on price. When analyzing an opportunity to make a trade that takes advantage of a potential short squeeze candidate, a higher SIR is desirable as it is more difficult for the trapped short sellers to cover their positions. The buys they need to make to cover their short positions have the potential to create significant upside momentum as more and more short sellers compete to closeout their losing trades.

You may see differences in the reported SIR from various data sources. The discrepancy occurs if the average daily volume used in the calculation is not from the last two weeks. Some data providers use a 50-day average of volume rather than the average of the last two weeks. It is important to note that a large outstanding short position or short interest ratio by itself is not a reason to buy a stock in anticipation of a short squeeze. It is an excellent gauge of potential demand for a stock which should be a part of every trader’s arsenal.

Short Sellers are Often Correct

Short sellers with large positions against a stock are typically sophisticated speculators who have done extensive research on their targeted company. They are often correct, and they make large profits as the stock declines. There are also those short sellers who have the right idea based on their fundamental analysis, but the timing of their short sales is off. That can lead to their positions being squeezed. When short trades are correct about a trend, they will add to their positions as seen in Chart 10.3.



The stock in Chart 10.3 was in a steady downtrend (red arrow) and the short interest continued to rise (green arrow) as the prices fell. The short sellers were emboldened by the lower prices and added to their bearish bets as the stock price dropped.

Short Interest Trend

When we look at the changes in SIR during reporting periods, we can spot the trend of the short sellers and then recognize the value of the information.

In Table 10.4 you can see that in late May there were only 225,000 shares sold short in this stock (1), but it had jumped to 13.9 million shares by January 15 (2). That means the shorts added 13.7 million shares to their short position in six months. The average daily volume increased from 746,000 to 2 million, and the SIR climbed from less than one to 6.8 days. The information in this table is used in Chart 10.5.

Short Interest

SETTLEMENT DATE	SHORT INTEREST	AVG. DAILY SHARE VOLUME	DAYS TO COVER
01/15 2	13,918,435	2,047,326	6.798348
12/31	14,915,847	2,480,213	6.013938
12/15	12,646,786	2,901,852	4.358177
11/30	11,054,724	2,587,831	4.271811
11/13	10,968,445	2,949,258	3.719052
10/30	8,861,373	1,398,724	6.335326
10/15	8,230,930	1,223,711	6.726204
09/30	7,305,791	1,899,161	3.846852
09/15	6,255,993	2,335,691	2.678433
08/31	2,001,235	1,119,219	1.788064
08/14	1,362,344	1,438,057	1
07/31	1,479,715	935,983	1.580921
07/15	1,488,775	1,362,027	1.093058
06/30	1,478,405	1,059,460	1.395433
06/15	371,314	1,350,053	1
05/29 1	224,857	746,026	1

Table 10.4 Short interest table. More recent time periods are on top. Table: www.nasdaq.com

Now we know when the short sellers became more aggressive. Next, we want to know at what price they shorted. If they shorted at prices higher than the current price, they would not feel pressure to buy back because they are in a profitable position. When the average short position is initiated at lower prices than the current price, the short sellers are in a losing position, which makes them vulnerable to a squeeze. Chart 10.5 below, shows how rising prices motivates short sellers to cover their positions.



Chart 10.5 This daily chart shows the short position drop-off as the prices rise. Chart: Koyfin.com

As we see in Chart 10.5, the short position increased from 2.0 million shares to 13.9 million shares from the end of September to January 15. The AVWAP from 9/25 to 1/15 was about \$13.01. We can assume this is the approximate price most of the short positions were initiated. When the stock broke past the range (A), it closed near \$20 that day. That means the average short at that point was down approximately \$7/share. That's more than a 50% loss overnight.

Notice how the number of shares in the short position dropped by 6.2 million shares, from 13.9 million, down to 7.7 million shares in the next month. This drop is clear evidence that the short sellers took some large losses and they remained in a vulnerable position on the balance of the trade as the stock made higher-highs and higher-lows after that gap higher.

Market Psychology: When do Short Squeezes Occur?

A short squeeze develops when those who sold the stock short, with the expectation it would continue to decline in price, change their minds about their trades and attempt to cover their positions before the stock advances and large losses accumulate. ***The occurrence of a rapidly rising stock price with a large short interest is known as a short squeeze.*** The shorts buys become part of the “market impact cost” as their buys negatively affect the position they are in. There are several groups of participants who play a part when a stock gets squeezed: fearful buyers, forced buy-ins, margin calls, target short squeezes, and stock loan calls are some of the ones we explore below.

Fearful Buyers

If you have ever been short in a stock that continues higher against your position, you understand the fear that higher prices elicit. To eliminate the mounting losses and the emotional trauma of holding a big loser, short buyers may panic with their purchases. These purchases cause the stock to advance at a rapid pace as the pressure of holding a losing position mounts on the short seller, and the short seller gets “squeezed.”

The primary motivation to cover a bearish position, as the stock rises, is the fear of unlimited losses. When you buy a stock at \$30/share, your maximum loss potential is \$30.00/share. When you sell a stock short at \$30, the potential for loss is, in theory, unlimited. The stock may rise to \$60, a 100 percent loss, or it could climb to higher levels resulting in losses of greater than 100%. It is the fear of such an advance that can make for an explosive upside move in a heavily shorted stock. In Chart 10.6 we see a clear example of shorts covering their position as the stock rises.



Chart 10.6 The daily chart shows short interest decline dramatically after the stock broke higher. Chart: Koyfin.com

Chart 10.6 illustrates what a short squeeze should look like. The stock broke past resistance (A) and then settled in for a few days. Once the stock made it past the AVWAP (B) from (A), the buyers regained control of the trend. The short interest below the price action shows how the upward momentum motivated short sellers to reduce their position from 16.9 million to 11.39 million shares.

Short squeezes can occur for many reasons, including news events that change investor perception of the worth of a company. A short squeeze can also develop as long holders of the stock attempt to push the price higher in an attempt to tap into the emotional buying that trapped short sellers often provide. If buyers are in control of the stock (it is in a Stage 2 Uptrend), they know short sellers are vulnerable. So long holders will often buy extra shares as the stock rises, with the hope the buyers can create enough fear in the short sellers so they buy back their position; resulting in the price moving higher. This can be like pouring gasoline on a fire, it only serves to make it burn hotter and stronger.

Forced Buy-Ins

Sometimes short sellers find themselves in a position of being forced by their brokerage firm to purchase the shares they had sold short, to cover their short positions. There are two reasons for “forced buy-ins,” margin calls and targeted short squeezes.

Margin Calls

When losses in a short position have gone so far against a customer that the equity levels in their account fall below exchange requirements, the brokerage firm is required by regulatory bodies - the SEC, NASD, as well as others – to demand the customer either to deposit more margin money into their account or buy the shares to close the short position. If the customer does not deposit the additional money, the brokerage will buy the shares to close out the short position and get the customer’s account in compliance.

Another reason for a forced buy-in of a short position comes when the shares shorted are no longer available to be borrowed against. When long holders of the stock, who have allowed shares to be borrowed for a short position, sell their long position, the short sellers who borrowed those shares will have an illegal “naked” short position. If this occurs, it is the responsibility of the brokerage firm to demand that short sellers either find other shares to borrow, or force customers to buy the stock. If the short seller cannot locate other shares to borrow, the short seller is required by securities regulations to purchase shares, or the brokerage firm will do it for them. The forced buy-ins are not “handled with care.” The brokerage firm is only concerned with making the buys before the close of business, before the risk is assumed by the firm. This can lead to dramatic upside movement in a heavily shorted stock.

Targeted Short Squeezes

There is a more sinister way the short sellers can be squeezed, called a forced buy-in. When large, long holders wish to inflict maximum damage on short sellers, they will allow their stock to be borrowed until a time where the buyers have taken control of the trend. If an institution that is in a long position of a stock, let’s say one million shares, suddenly demands that the shares they loaned out be delivered back to that firm, the short sellers who borrowed the shares are stuck looking for new shares to borrow. If the short seller cannot locate new shares to borrow, they must purchase the shares they are short. This is effective to place pressure on shorts because of its cold-hearted implementation. In effect, the long holder set the shorts up to be squeezed. No one said Wall Street was a nice place.

Stock Loan Calls

When you purchase shares you can request that the company issue an actual stock certificate, but this is rare. Most investors purchase stocks “in street name,” which means that the brokerage firm holds the shares as a convenience to the customer. A source of revenue for brokerage firms is to loan customer shares to be shorted. Depending upon how the investor (you) purchased shares and set up your brokerage account, you can either allow or not allow a brokerage to loan out your shares to short sellers. If your shares are in a cash account, the brokerage cannot loan your shares. If your shares are in a margin account (and therefore with an hypothecation agreement), it allows the brokerage firm to “hypothecate” (lend out) these shares to other customers who may

want to establish a short position. The brokerage will charge customers fees to borrow stock for short positions.

A way to prevent your long positions from being lent out is to enter a “good-until-canceled” (GTC) sell order on the stocks at a price you believe has little chance of being transacted. For instance, if your stock is trading at \$30, you enter a GTC sell order at \$200. Because of the pending order to liquidate your long position at \$200, the brokerage firm cannot lend out the shares in your account.

Two Types of Short Squeezes

People often call any short-term stock bounce in a downtrend “a short squeeze.” Most quick rallies in a downtrend include short sellers covering their positions during, and in part, causing, the rise. Not all “short squeezes” lead to a continued upside price increase. Below we examine two different types of short squeezes; the short-term knee-jerk squeeze, and the longer-term structural short squeeze.

Knee-Jerk Short Squeeze

This squeeze occurs in a longer-term downtrend with a large short position. When a stock in an established Stage 4 Decline is accompanied by a large short position, short sellers are in control of the trend. Their accumulated profits make short sellers less likely to panic and cover at the first signs of a bounce. When prices are in a Stage 4 Decline, short sellers can dig their heels in and stay short until their bearish opinion changes or, in the most severe down market, the stock becomes delisted in a bankruptcy. Still, some short sellers will panic and cover their position after even a small bounce.

Chart 10.7 shows a knee-jerk short squeeze. Notice how, after the large gap down in November, short sellers covered some of their shares, which you can see in the declining short interest. As the stock continued lower over the next few months, short sellers became emboldened and nearly doubled their short position (green arrow). While many participants try to “buy the dip,” as a long position, short sellers know there is no such thing as “down too much.” Therefore, they continue to hold their short position.

Stage 4 Decline stocks can experience quick and large rallies, but those short-term bursts typically fail as longer-term selling pressure is too strong to overcome.



Chart 10.7 This daily chart shows short interest increase, even on the short-term bounce in February. Chart: Koyfin.com

Psychology: Trading against the trend

Stocks in a downtrend will attract “momentum short sellers” who pile on extra shares of short stock after the short-term rallies. You may be tempted to buy the short-term rallies because they can result in quick trading gains. However, when the longer timeframe is lower, long purchases are very risky trades. These short-term bounces are best left to the most risk-tolerant traders who specialize in the shortest timeframes. The best course of action is to stay with the primary trend rather than fight them.

Structural Short Squeeze

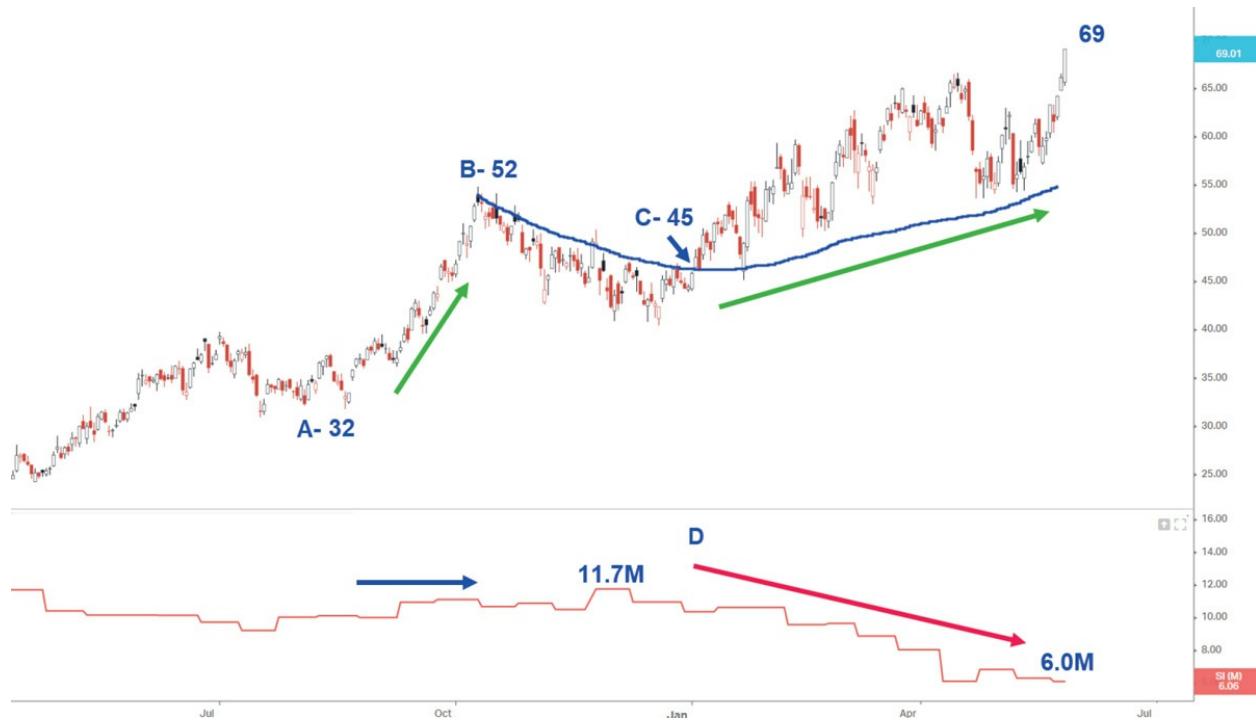
A second short squeeze is what I call a “structural short squeeze.” It occurs when a stock in an established Stage 2 Uptrend has a large short position that is “out of the money.”

When we combine the price data along with the short interest trend of the short sellers, we can determine the approximate price level where the short positions were initiated. We use this information to determine the “pain point” where the short sellers (in the aggregate) are in a losing position.

Once the average short seller is losing money, the stock is vulnerable to a squeeze, and a subsequent increase in price. If most short positions were initiated at lower levels, the growing losses in a rising stock motivate short sellers to reconsider their positions and purchase the stock.

When they cover their shorts, additional demand fuels the market, which adds further pressure to the average short seller. This type of squeeze setup (Chart 10.8) can lead to substantial moves higher. This is based on the large number of short sellers who are wrong about the stock's price decline.

The stock in Chart 10.8 shows an initial advance from (A) to (B). During that rally from \$32 to \$52, the short sellers remained stubborn about their view of the stock, as shown by little change in the short position (blue arrow). After the rally began to pullback, we anchor a AWWAP to (B). We can see the short sellers remained complacent and even added a few shares to their bearish bets, to 11.7 million short shares.



It wasn't until (C) at \$45/share, when the stock crossed back above the AWWAP from the prior peak (B), that we knew for sure the buyers were back in control. At (D) short sellers began to cover their positions (red arrow). Over the next few months, the stock rallied from \$45 up to \$69/share and the shorts covered 5.7 million shares. The stock still had 6 million shares of exposure with the stock at all-time highs. I wouldn't want that position.



The stock in Chart 10.9 shows when the shorts remained stubborn. Focus on (B), where the buyers clearly took control of the stock. We knew for certain the buyers were in control from that peak (B) where it crossed above the AWWAP anchored from the high (A). Short sellers who increased their position from 3.9 million to 12.3 million shares at or near (B) were in trouble because the stock was above that AWWAP.

The interesting part is that the short position was at the highest level, 13.7 million shares, while the stock broke to an all-time high (after C). The AWWAP (green) from the last higher-low (C) was rising under the stock as it traded in a tight range. With buyers clearly in control and short sellers in a large losing position, this is the type of stock you want to identify as a structural short squeeze candidate.

Here are some general points to help you determine the stocks that may become structural squeeze candidates:

- 1. Uptrend on the daily timeframe.** At a minimum, the stock must be above the rising 50-day moving average. Stocks at or near all-time highs are best because there is no real motivated source of supply from holders looking to get out at break even, and all of the longs are in a winning position. If the stock is in a downtrend, it is not a good squeeze candidate, as short sellers are in control and have no reason for aggressive purchases.
- 2. Absence of any hedging vehicles.** Some common ways for short sellers to hedge bearish bets are with options; a different class of common stock, warrants, convertibles, preferred stock, or any other hedge products. If there is an inability to hedge against a short exposure, it will leave the short seller in a more vulnerable position.
- 3. Short interest** should be high relative to average volume. The higher the SIR, the greater the difficulty short sellers will have in purchasing their shares.
- 4. Level of potential squeeze.** Check to see the approximate level that most shorts were initiated. We can approximate this with the AWWAP. When the stock rises above this level, the average short seller is losing money. That makes the shorts exposed to a squeeze.

Stocks with double sources of demand (longs and shorts) and tight supply (especially if the stock is at or near an all-time high) can lead to excellent upside trade opportunities.

Short sellers are usually savvy speculators. However, like any group of market participants, they aren't always right. When shorts are wrong about the direction of a stock, their move to cover can lead to some excellent trend opportunities for traders who can recognize the squeeze situation develop.

KEY TAKEAWAYS

- Short squeezes are motivated by short sellers who fear unlimited losses that can arise from being in a losing position.
- The higher the SIR is, the more difficult it is to exit a short position and the greater the upward impact will be on price. I consider an SIR of 5 or greater to be significant enough to think a short squeeze could develop in the stock.
- Knee-jerk short squeezes are typically short lived.
- Structural short squeezes can lead to longer-term uptrends.
- We want to identify structural short squeeze candidates because they can lead to dramatic upside moves where trend traders can profit.

CHAPTER 11

IPO TRADES WITH THE AVWAP

“If you know the ‘zero point’ you can measure anything.”

—W.D. Gann

“The IPO is the zero point for every stock.”

—Brian Shannon

Chapter Objectives

1. How AVWAP adds objective structure to IPOs
2. IPO AVWAP is useful from the first minute of trades to years later

A private company first sells shares of stock to the public to raise capital. The process is known as the “Initial Public Offering” or “IPO.” It is referred to as “going public” because it is the first time the public can own a piece of the company through an offering on a public exchange. It is the “birth” of a stock.

Initial Public Offerings are a unique opportunity to study price action from the inception of a stock as a publicly traded company. Because there is a defined starting point to anchor an AVWAP from, an IPO offers the purest look at supply and demand from a fixed starting point shared by all participants.

Why Anchor to the IPO?

All IPOs start their life as a public company with a single trade. That first trade is the “opening print” where all of the buy and sell orders are matched. After that first print, the stock trades freely in the open market. The opening print is usually the largest volume of stock on a 1-minute timeframe. The large volume of the opening print is the aggregate of all the buy and sell orders. After the opening print, the stock trades like any other stock, subject to the laws of supply and demand.

The AVWAP has been my primary analysis tool for IPOs since I first began to experiment with it. Chart 11.1 is a blog post from www.Alphatrends.net in 2007.

Since Coming Public

December 27, 2007 December Th, 2007

alphatrends

About VWAP, Articles, Education,

General Blogs, VWAP

four days ago, NetSuite Inc.(NYSE:N) had an excellent run. Now the stock is experiencing a little profit taking and the best level of support for the stock appears to be near 32.75-33.25 which is the location of the 61.8% retracement level of the rally. That level is also where the Volume Weighted Average Price (VWAP) is found, meaning that it is the average price paid for the stock in the after market. With little else to base an analysis on, the combination of these price and volume based indicators suggest we look for the stock to find support in that area.



Chart 11.1 This is a blog post I wrote in 2007 about potential support at the AVWAP from the IPO. Note, this company no longer exists as a publicly traded stock. Chart: RealTick.com

For the first couple of weeks, daily chart data is of little value without an AVWAP. If you trade from a chart with daily data, wait for more data to build to make sense of the chart.

If you want to use the 50-DMA, you need to wait until the fiftieth day the stock trades. **If you want to trade the first day the stock comes to life, look at intraday charts and use VWAP/AVWAP.**

Start Charting the Shortest Timeframes

I start my analysis of IPOs on the first day with a 1-minute chart. The 1-minute chart allows me to see price action develop in real time. As the stock builds more price and volume data history, my analysis will move out from a 1-minute timeframe to 5-minutes, 15, 30, 65 timeframes and longer. **Of course, it is always by using a multiple timeframe analysis where we find the most value.**

The first trades of an IPO are similar to gap trades. There is a sudden supply/demand shift, which becomes an important anchor point for the stock. There is no subjectivity about where to set the anchor in an IPO. We set it from the first trade.

The following examples use several timeframes to emphasize how important the IPO AVWAP is from the first trade of a new stock to several years after the IPO.

Chart 11.2 is a 1-minute timeframe, it begins the moment the stock traded through the end of its first day as a public company. There are two (A)VWAPs on this chart. The first VWAP (purple) is anchored to the first minute of trading. The second AVWAP (blue) is anchored to the second minute of trading.

The stock was a “hot IPO,” which means there was a lot of demand right out of the gate. We know that because the stock immediately rallied so strongly that it triggered an exchange halt (1) after a quick rise of 10%.

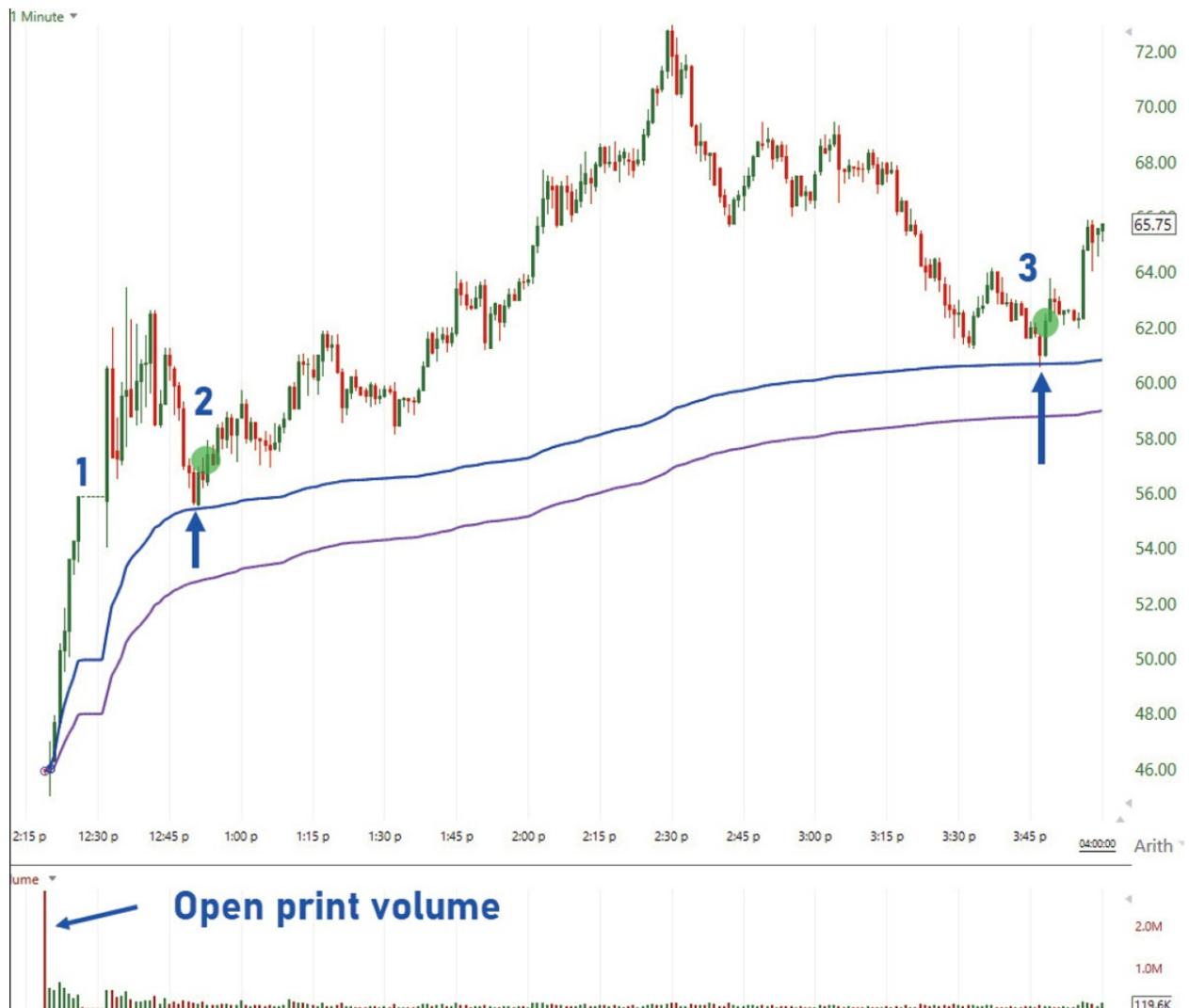


Chart 11.2 One-minute chart. When a stock first begins trading as an IPO it is helpful to anchor to the first and second minutes. Chart: TC2000.com

Stocks are halted by the NASDAQ for a few minutes when a move of 10% or more occurs in a five-minute period. The AVWAP from the first minute trailed the stock significantly through the end of the day.

If you waited for a pullback to the AVWAP from the open, you would have missed the move since it never touched the first minute AVWAP (purple). If instead, you knew to anchor from the second minute that does not include all of the volume from the open print, you would have had the opportunity to purchase the stock on two occasions (2 and 3) as the stock tested and then rallied away from the second minute AVWAP (blue). Stops for these buys would be placed below the low at the blue arrows.

Graduate to Multi-Day AVWAPS

Chart 11.3 continues to build on the stock from Chart 11.2.

This is the same stock as Chart 11.2, two days after the IPO. This chart is constructed with 5-minute data. The circled area shows how the AVWAP from the IPO found buyers on the day three as the stock opened on a gap down.

It will surprise you how often buyers or sellers congregate near the IPO AVWAP, even years after the stocks come public. Institutions will often buy on pullbacks to the IPO AVWAP, so we want to be ready to act in that area as well. After day one of an IPO, it is no longer necessary to anchor from the second minute as the divisor increases and the impact of the first-minute trades lessens.



Chart 11.3 Notice on this 5-minute chart how this stock found buyers at the AVWAP from the IPO on the third day of trading. Chart: TC2000.com

Chart 11.4 shows how the addition of AVWAP from the IPO adds structure to our analysis. The left chart shows the stock with price action only. On the right, we see the AVWAP from the IPO along with price action for the same stock. Notice how the initial rally failed to hold (1). As it made a lower-low under the AVWAP, it led to a quick selloff below (1).



Chart 11.4 The VWAP (purple) adds structure to price action in for an IPO on this 10-minute timeframe. Chart: TC2000.com

Two days later, the stock rallied to the IPO AVWAP (2). After it moved through the supply in that area it made a higher-high above the AVWAP (3). This would have been a low-risk entry with an initial stop below the most recent and relevant higher-low (4).

As the stock rallied past \$13/share, it would be time to raise the stop to under (5). At (6) the stop (5) would have been undercut and stopped out. Of course, someone with a longer-term goal might not have their stop so tight and more risk averse traders may have had an even tighter stop.

Chart 11.5 shows the AVWAP action for an IPO stock.

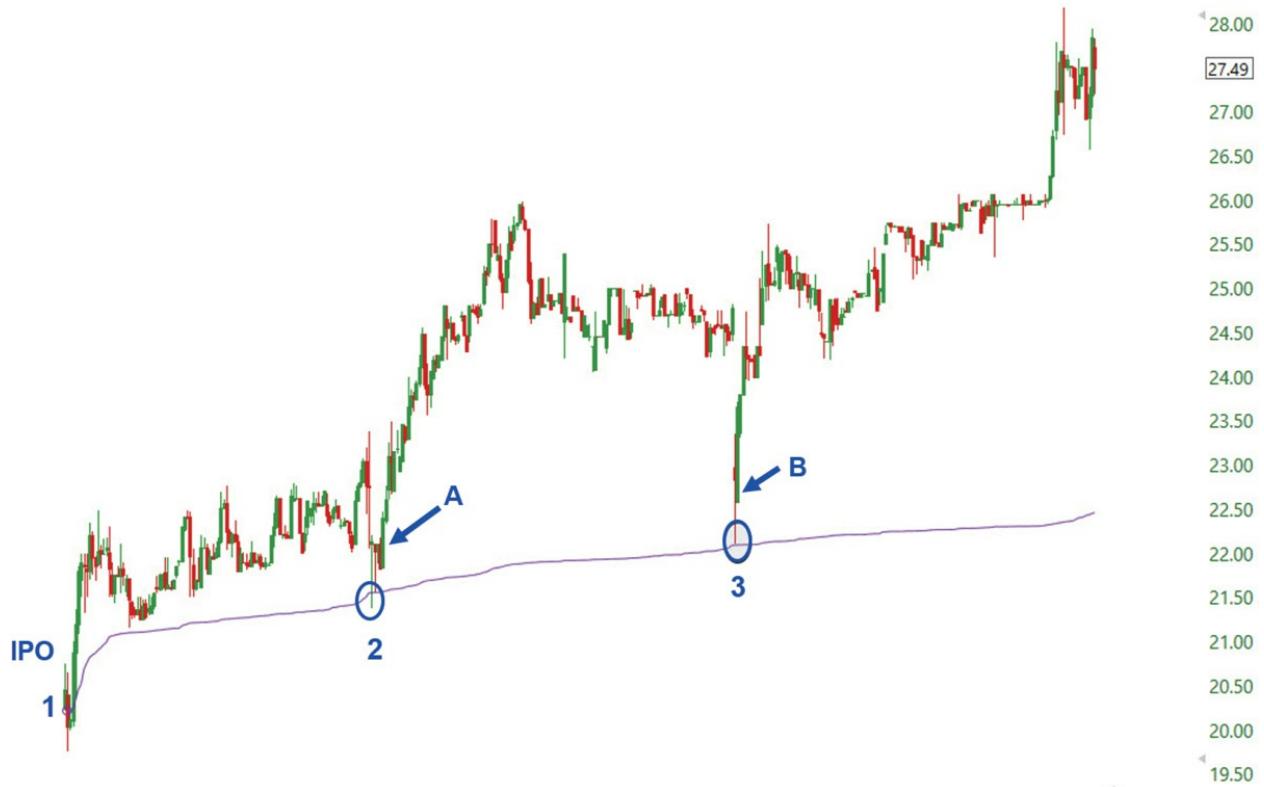


Chart 11.5 Three days of trades on a 10-minute timeframe. Chart: TC2000.com

Here is an example of the first three days of trades for an IPO with 10-minute data. We set the anchor to the first candle (1) on the chart. Notice how the buyers scooped up shares of the stock on the weak open on the second day (2) and the day after that (3). With the benefit of hindsight, we can see a purchase (2 or 3) would have worked, but the better buys were (A, B). These were better buy levels because the stock had upward momentum and a stop could go below the pullback low. A look at the one-minute chart on the open of day two and day three would have been the best opportunity to purchase this stock with a “second-day” entry technique.

Longer-Term Chart Timeframes for IPO’s



Chart 11.6. This chart is constructed with 195-minute candles (2 equal periods per day). It shows the IPO AVWAP for six months. Chart: TC2000.com

The IPO AVWAP anchored (1) in Chart 11.6 was briefly undercut (2) before the stock broke to a new high (3). A purchase (3) would make sense with a stop below the low (2). There are several higher-lows (discussed below), so the stop should have been raised to protect the gains over the following months.

Regardless of where you may choose to set a stop, it would be unforgivable to allow the stock to come all the way down to breakeven (4) or worse, to allow it to turn into a loss.

Notice how the stock tested and closed above the IPO AVWAP at points (5, 6, 7, 8, and 9). These were all good levels for a stop.

The stock broke and closed below the IPO AVWAP (10) five months after the stock came public. The stock then held below the AVWAP (11). A short sale would make sense here since the stock reached a lower-low below AVWAP. A stop on this short sale would have gone above the most recent and relevant lower-high (12).

In Chart 11.7 we see a stock that was trapped under its IPO AVWAP for months.

The stock in Chart 11.7 looked like it would be a successful IPO for the first few days, since it opened near the low of the day (1) and closed well above the IPO AVWAP for the first few days.

It broke below the IPO AVWAP (2) but recovered (3). At (3) it looked like buyers had control again, but it didn't last long, and the stock broke below (2) and made a lower-low (4). This is where we have confirmation that sellers established their dominance (4).



Chart 11.7 Daily chart with IPO AVWAP as resistance. Chart: TC2000.com

Over the next 11 months, the stock rallied up to the IPO AVWAP (5, 6, 7, and 8) and sellers maintained control as the stock failed to close back above the IPO AVWAP. As downward pressure accelerated away from the AVWAP, there were excellent short sale opportunities (A, B, C) with protective stops above the preceding highs (5, 6, and 7).

Chart 11.8 shows how the IPO AVWAP flipped from Resistance to Support and then back to Resistance. Chart 11.8 is constructed of weekly candles. Some people prefer to look at longer timeframes with fewer data points for "less noise." With one week being five days, there are fewer candles to represent the same data. As with all technical analysis, the IPO AVWAP concepts are the same on all timeframes.

The anchor is set to the first candle (1) of an IPO, regardless of the timeframe. Over the next three weeks, the stock remained below AVWAP until (2) where it could have been purchased with a stop under (A).

As the stock progressed higher, it found buyers on pullbacks to the IPO AVWAP (3 and 4).

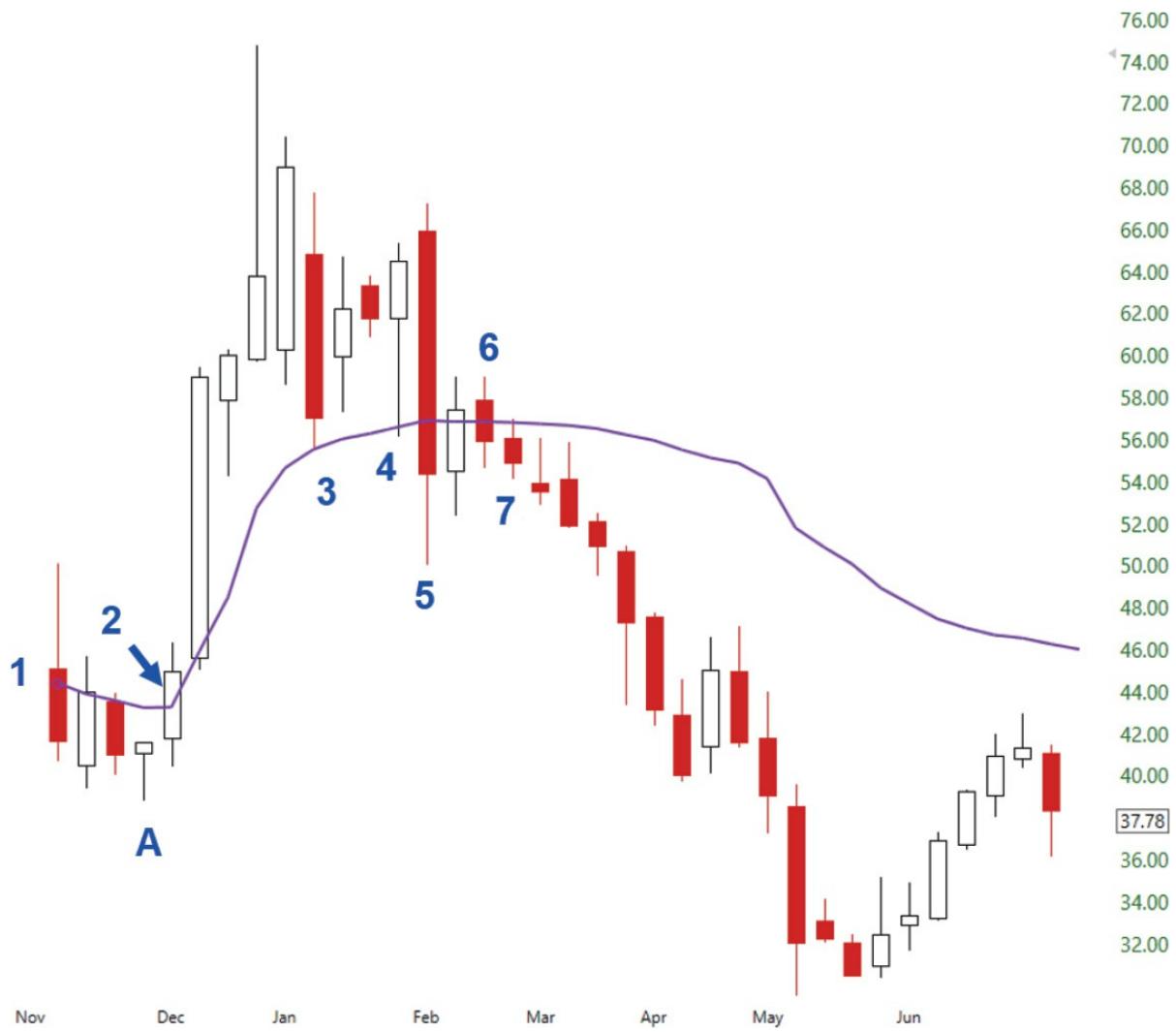


Chart 11.8 Weekly chart for eight months with IPO AVWAP. Chart: TC2000.com

When the stock moved higher from that level, the stop should be raised to just under (4). It would have been stopped out with a good gain (5). The next couple of weeks the stock made a higher-low until (6), when it started to trend lower, below the low of the prior low. The break (6) occurred below the IPO AVWAP, so a short sale (7) made sense with a protective stop above the high (6).



Chart 11.9 This is the weekly timeframe for three years with an IPO AVWAP. Chart: TC2000.com

The IPO AVWAP can be useful four years after the stock comes public. Chart 11.9 is constructed of weekly candles, showing nearly three years of trades for the stock. We set our anchor to the first week of the IPO (1). After five weeks below the IPO AVWAP, the stock was a good buy (2) when it cleared the IPO AVWAP and cleared the prior week high.

The stop on this long would be placed (A) and then raised up under the low of (3) where the stock bounced from the IPO AVWAP. At (4) the long position would be stopped out as the stock made a lower low.

A couple of weeks later, the stock broke below the prior week low (5). This would have been a good place to enter a short position with a stop above (B). If a trader progressively lowered the stops to just above the lower-highs, the short would have been stopped out (6). This is where the stock broke above the IPO AVWAP and above the prior week high.

A couple of months later, the stock pulled back, and found buyers, at the IPO AVWAP (7), which had been set over 2 years prior.

At (8) the stock cleared the prior week high after it successfully defended the IPO AVWAP. A purchase (8) made sense with a stop just under the low (7).

Historical IPO Example

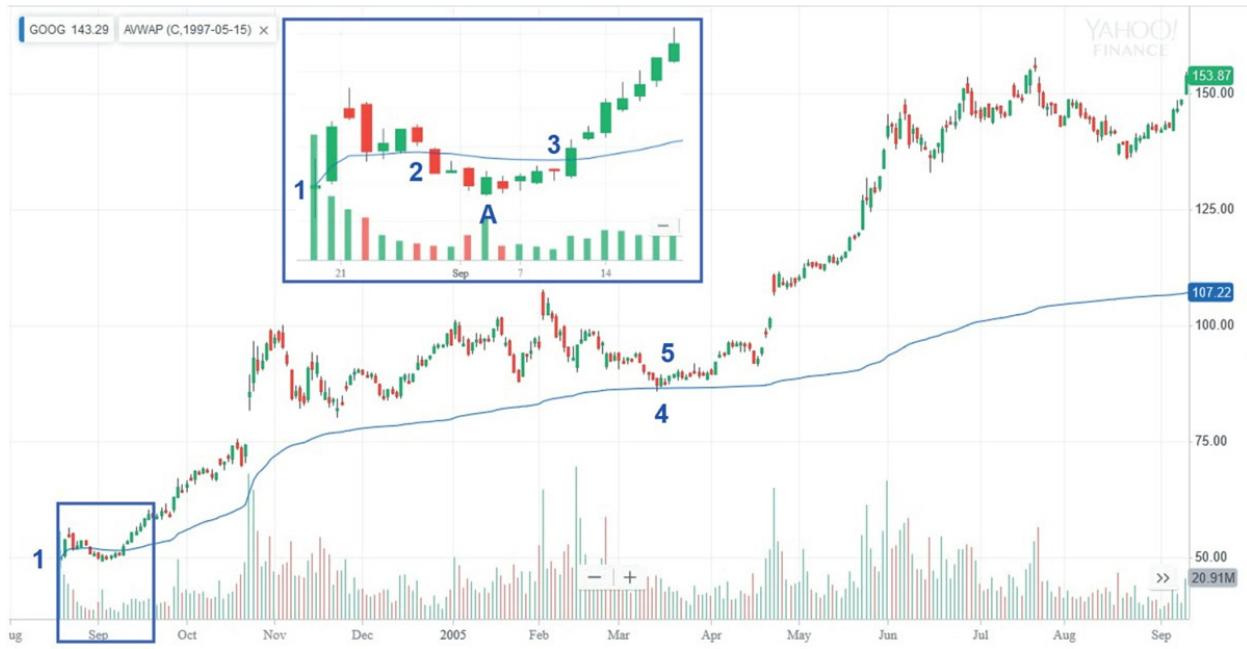


Chart 11.10. Weekly chart with daily detail inset. Chart: Finance.Yahoo.com

Google (Alphabet) Inc. came public in 2004. The daily Chart 11.10 shows the first year of trades in the stock. The inset shows greater detail of the first couple weeks of trades.

The AVWAP starts on the first day of the IPO (1). On day 7 of trading (see inset) the stock undercut the IPO AVWAP (2) and it would have made sense to be stopped out there since sellers were in control.

About two weeks later, the stock climbed back above the IPO AVWAP (3). A new long purchase could be made here with a worst-case stop below the low (A).

It wasn't until six months later, that the stock tested the IPO AVWAP (4). For those who didn't already own the stock it made sense to purchase (5) as it rallied away from the AVWAP. A stop on this purchase, and any existing long position, would go under the low (4). The stock has been one of the great stocks of all time.

KEY TAKEAWAYS

- IPOs are obvious anchor points.
- From the first minute of trades to several years later, the IPO AVWAP proves to be a valuable reference point.
- Buyers and sellers will make decisions that lead to the formation of Support and Resistance at the IPO AVWAP.
- As with other strategies, the IPO AVWAP is not the only valuable anchor point on the stock.
- Use the knowledge from previous chapters to find the other anchor points that are suitable for your timeframe and risk tolerance.
- If you want to trade a stock on its IPO day you need to use a VWAP.
- On the first day of an IPO, anchor an AVWAP at the second minute of trading for objective analysis without the noise of the first minute opening print trade.

IN CLOSING

“Man’s mind, stretched to a new idea, never goes back to it’s original dimension.”

—Oliver Wendell Holmes Jr.

What will you do with this information? It is my hope that you recognize the power and flexibility of the Anchored VWAP for innumerable timeframes and setups in the markets.

There is no wrong way to use what I’ve laid out for you. I expect some readers will use the concepts and information to complement and fine-tune an approach that already works for them.

Others will try to replicate the strategies exactly as they have been laid out. If so, I ask that you also follow my advice on managing risk aggressively. If you do both of these together, you have a good chance for success.

Any approach that works, and limits losses when it doesn’t work, creates the type of mindset that allows you to accept small losses. When armed with a winning strategy, you have the confidence to have an attitude of, “I loaned \$ back to the market and I will get it back with interest.” A short-term loss can be part of the process. Do not get stuck in hindsight analysis. Instead, learn to use past data to anticipate what may be next for a market. This is the best way to create a logical plan that includes the possibility of being wrong and taking a small loss before causing major damage to your account.

Remember, the AVWAP is a tool. Like any tool it can provide great value if used properly, but in the hands of an unskilled practitioner, it may do more harm than good. I hope I have explained it clearly so you are confident in getting started to take your trading to the next level with the help of AVWAP analysis.

Now, take your time to become familiar with the AVWAP before you jump into the market guns blazing, looking to make every trade a winner. The cornerstone to any successful approach is risk management. **Risk management is always Job #1.**

And remember, the only thing that really matters in the market is price action. **Only Price Pays!**

If you found this information to be helpful, please leave a review where you purchased the book.

PART III APPENDICES

APPENDIX A: THE FOUR STAGES OF MARKET STRUCTURE

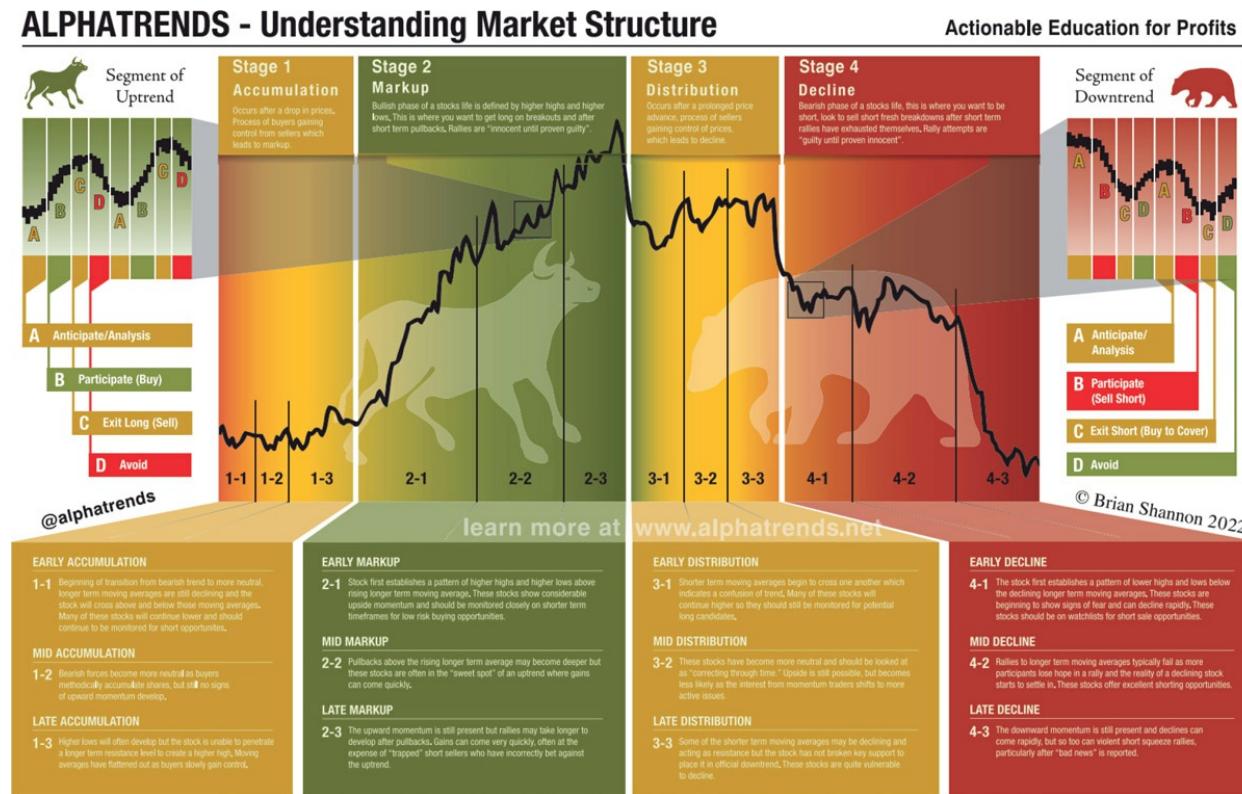
All trade strategies should be based on a solid comprehension of market structure. There is a definite cyclical flow of money in and out of assets and we can observe this rhythm on charts of all timeframes. Graphic A-1 is a reference to the various stages of a stock's life cycle. For a high-definition downloadable electronic copy of this please see page 234.

Stage 1 Accumulation refers to the period when a stock has no trend, it trades sideways. It occurs after a drop in prices. It is the process of buyers gaining control from sellers. We know it is in Stage 1 only after the buyers have regained control of the stock and it enters a Stage 2 Uptrend. Until it is in uptrend, it is a trendless market that should be avoided by trend traders.

Stage 2 Markup (Uptrend) is the bullish phase for stocks or markets. The markup stage is an uptrend, as defined by higher-highs and higher-lows. This is the time to be long. Stocks in uptrends are considered to be "innocent until proven guilty."

Stage 3 Distribution. After a prolonged advance, sellers will start to overwhelm the buyers. This causes the stock or market to turn sideways. We know that it is Stage 3 only after a decline has begun. Until the decline begins, it is just a neutral period that should be avoided by trend traders.

Stage 4 Decline (Downtrend) is the bearish phase of a stock's life. This is when to be on the lookout for short sale opportunities. The Decline stage is defined by lower-lows and lower-highs. Stocks in downtrends are considered "guilty until proven innocent."



Graphic A-1 Market Structure see Page 234 for a link to the high-definition downloadable chart. Chart: www.Alphatrends.net

To summarize, we want to:

- Avoid sideways neutral periods, Stage 1 Accumulation and Stage 3 Distribution.
- Go long in markets where the trend is higher, Stage 2 Markup/Uptrend.
- Be short or avoid markets where the trend is lower, Stage 4 Decline/Downtrend.

Trend Formation

The direction of the expansions and contractions forms trends on a chart. A move in the trend's direction on a higher (longer-term) timeframe is referred to as an "impulse wave." In the short-term, countertrend moves are called a "pullback¹."

The rally high is called the "swing high" and the pullback low is known as the "swing low." The trend's "legs or thrusts" will see an expansion of the range higher, followed by a contraction of the range in the corrective leg. These are shown in charts A-2 and A-3.

Trade with the Trend

When a stock has higher-highs (HH) and higher-lows (HL) it is in an uptrend. Only in retrospect, after prices pull back from each peak, can we identify the HH.

Chart A-2 shows three higher thrusts, represented by the green arrows. The red arrows show the "corrective waves" or pullbacks. Keep in mind, a pullback only occurs in a primary uptrend. Stocks in downtrends are considered "guilty until proven innocent," and should be avoided by long traders.

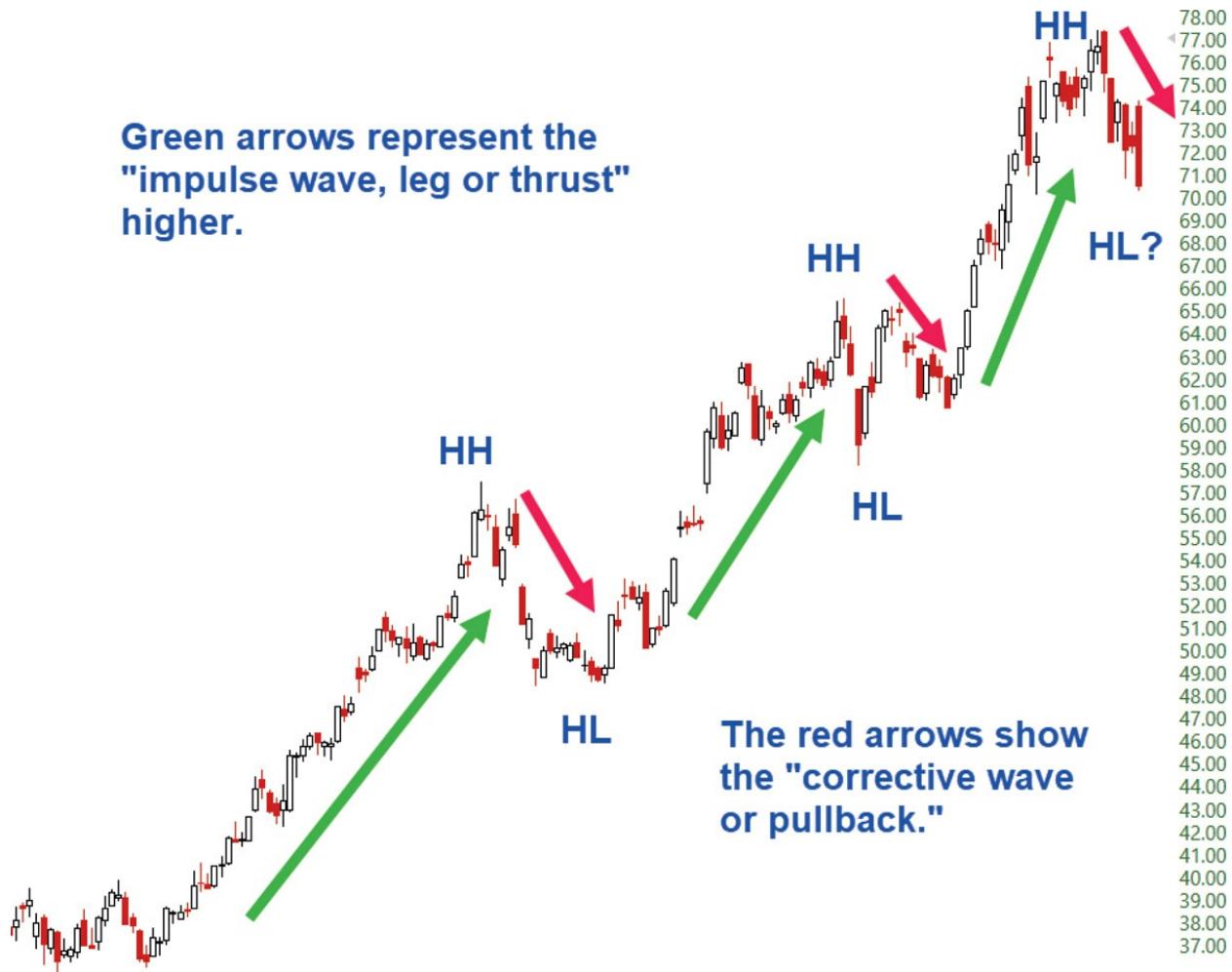


Chart A-2 This chart is constructed of daily price candles. It shows the higher-highs and higher-lows in an uptrend. Chart: TC2000.com

The very definition of a trend is what gives us the most compelling reason to be trend traders. An uptrend is marked by a series of HH's and HL's. This means the sum of the rallies will be greater than the sum of the declines. Therefore the best odds for profitability lie in trading in the direction of the primary trend.

Note, the last HL on Chart A-2 has a question mark next to it. As the trend changes to a corrective mode, we do not know if it will be a HL or if it will fail outright and reverse the trend.

Just like Support and Resistance, we know only after the fact if it will be a higher-low, so we wait for evidence of a turn back higher before we consider a purchase. If the stock does turn back up, the most recent low is known as the "swing low."

Regardless of the timeframe, from years using the weekly chart down to just one day using a one-minute chart, the behavior of a stock in an uptrend is the same. The uptrend action looks like a staircase, with prior levels of Resistance that act as Support for price.

The opposite is also true for downtrends that are defined by a series of lower-highs and lower-lows. Chart A-3. illustrates how, in a downtrend, the sum of the declines will be greater than the sum of the rallies.



Chart A-3 This chart is constructed of daily price candles. It shows the lower-highs and lower-lows in a downtrend. Chart: TradingView.com

Price and Time Corrections

Markets alternate between periods of price advancement in an uptrend, and price contraction as it consolidates the decline in a downtrend. The expansion of the price range uses up a lot of energy and the market needs to “rest.” The rest period can occur by a price pullback or a sideways, “correction through time.”

A time correction is a stronger candidate for a trend to continue higher than a price correction. The lack of a deeper price pullback in a time correction indicates a continued strong bid for shares. A deeper price correction shows a less aggressive bid for the stock. Regardless of how a correction occurs, it is a chance for the stock to rebuild energy and accept or reject new prices.

It is considered more bullish when a stock corrects through time (as shown in Chart A-4 with the green shaded areas) than a price pullback (indicated by the red arrows). A price correction is still bullish as long as a HL is formed. Both time and price corrections should be monitored for evidence of buyers regaining control so we can make a low-risk purchase in the direction of the primary trend.

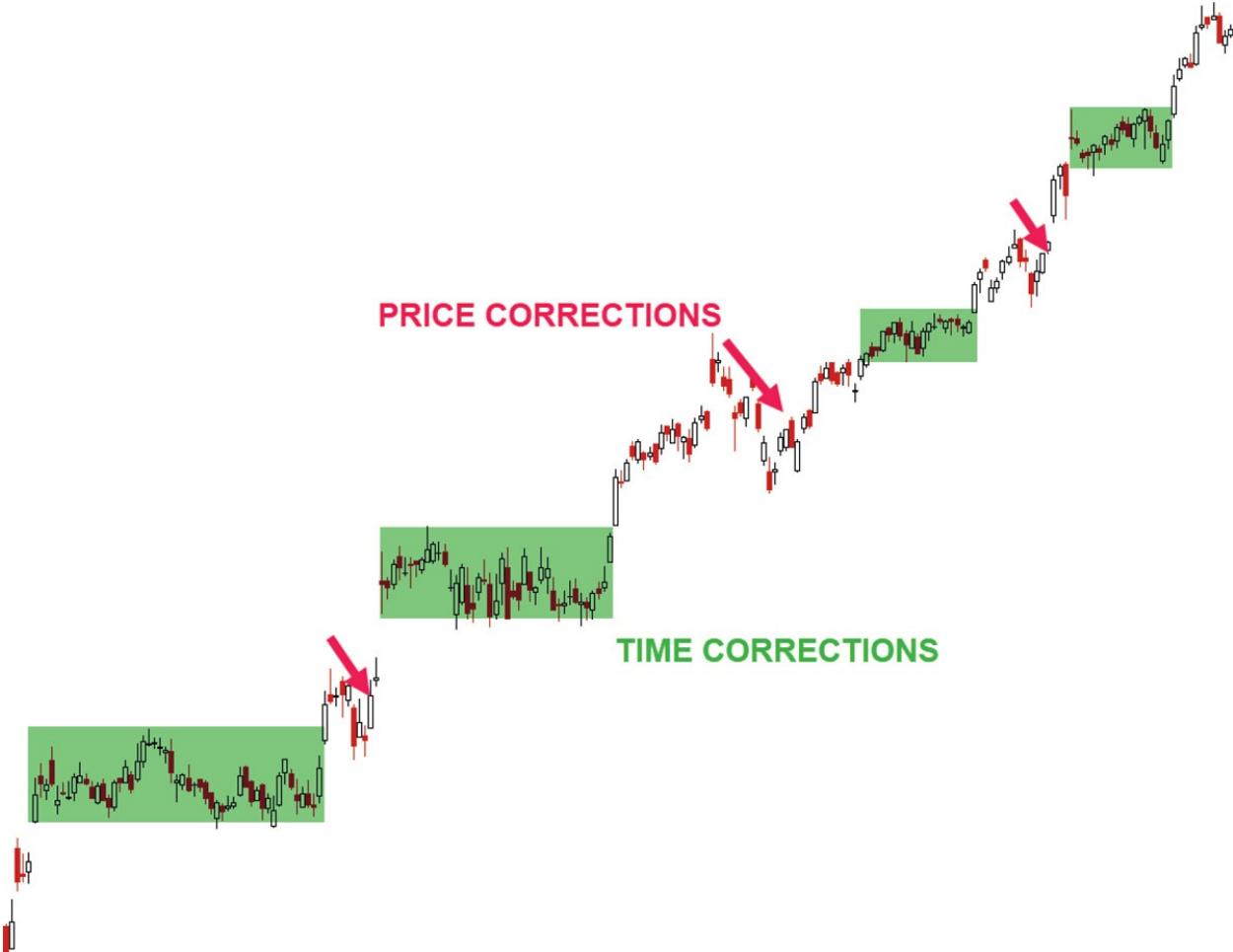


Chart A-4 Price vs. Time Corrections: The green areas show a time correction, whereas the red arrows show price corrections in an uptrend. Chart: TC2000.com

The opposite action unfolds for a stock in a downtrend, as seen in Chart A-5.

On Chart A-5, time corrections in a downtrend (red shaded areas) are considered vulnerable because they show a lack of aggressive demand. Weak bidders for the stock are eventually overwhelmed and the stock continues lower. The price corrections (green arrows) are short-term rallies which end up in failure as the longer-term downtrend prevails.

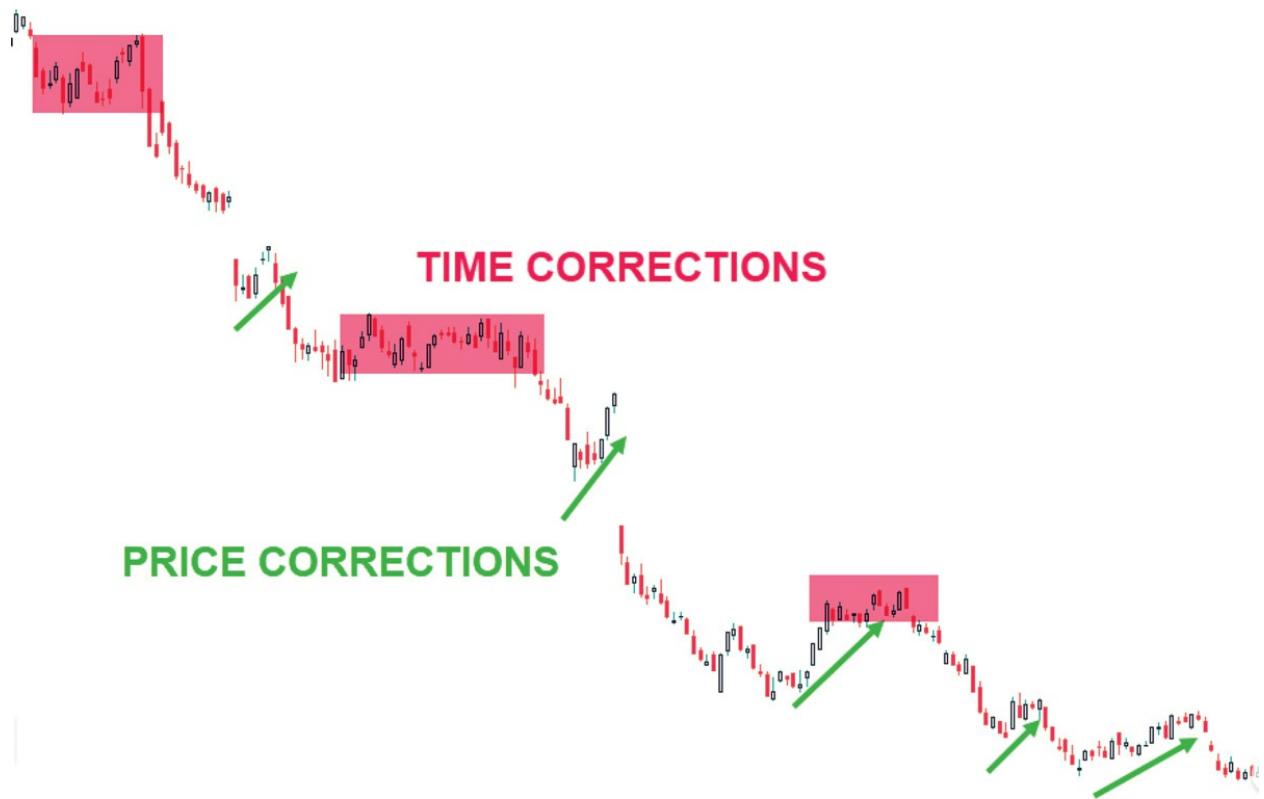


Chart A-5 The red shaded areas show a time correction whereas the green arrows show price corrections in a downtrend. Chart: TradingView.com

It may be tempting to buy stocks at perceived bargain prices. It has been a popular mantra to “buy the dip” but as we have seen in Part Two Chapter 7, buying dips is a flawed strategy. “Selling the rip” is another popular phrase amongst market participants who sell short the strength of a stock. If you have ever acted on this kind of advice, I’m glad you’re reading this book and hope you’ll change your strategy and make stronger trades as a result.

¹ Some traders refer to pullbacks as “corrective waves.”

APPENDIX B: MULTIPLE TIMEFRAMES

AVWAP is a primary part of my analysis, which I integrate into my multiple timeframe analysis. Time is one of the few variables that we can control in our pursuit of market profits. Of course, we cannot control time itself, but we can control our entries and exits and the length of time we choose to hold our trades or investments.

The period of time that we allow our market activities to work for (or against) us is completely subjective. Whether you are a day trader, long-term investor, or somewhere between, the goal is to always cut our losers and hold our winners. The most effective way to achieve this goal is to listen objectively to the message of the market. This is accomplished through technical analysis.

Often, the message of the market will be one of confusion, and that is an important message to recognize. If there is no clear trend or potential trade setup, the message of the market is clear, "be patient, cash is a position." We may want to constantly be engaged in the market, but it is better to observe and wait for the "fat pitch" trade to set up before getting involved in a new trade.

Choose Your Timeframe

One of the most important aspects to your success in the markets is to identify and stick to a timeframe that is best suited to your personality. Some people are more attracted to day trading in-and-out of highly volatile stocks, while others may be more interested in a buy and hold approach.

I am not the first person to observe that the number of trades one makes will typically decrease over the number of years that you are in the markets. The fact is some people are great day traders and that is where they should focus their energy. There are many excellent long-term investors and that should be their focus. The bottom line is to find the timeframe that works best for you.

Many traders use a combination of timeframes for different strategies. This is how bond managers must work. They diversify their timeframes by the purchase of 2, 5, 10, 20-years and longer maturities. They are forced to trade various timeframes. Do what works for you and go slow until you figure out the timeframe that is most suitable for you.

Only you can know the best timeframe for your personality, and you will likely make a lot of mistakes as you figure it out. A long-term investor uses the longer-term market exposure to smooth out returns. This requires a tolerance for short-term volatility. Shorter-term traders attempt to exploit the volatile periods for quicker returns and need to make quick and accurate decisions. Because of their shorter timeframe focus, shorter-term traders can experience a full cycle of emotions in a single market session that will take longer-term investors years to experience. This leaves shorter-term traders more vulnerable to costly, emotional decisions.

Timeframe Considerations

- Are you a fast thinker or slower thinker?
- Can you quickly observe and objectively make decisions or do you get panicked when you must act on shorter timeframes?
- Are you a slower, methodical participant who must plot and plan each detail?
- What suits your personality best?
- What is your capital base? People with small accounts may feel they have to be more active while larger account holders may be more patient.
- How much time do you have to commit to the markets?

We need to use even-sized bars/candles for accurate analysis. *A common mistake made in technical analysis is to use timeframes where there are an uneven number of periods each day.*

This approach unfairly weighs one period over the others and therefore skews any technical tools we use in our analysis. Take the example with a chart constructed of 60-minute data (the hourly timeframe.) The market is open from 9:30 a.m. to 4:00 p.m. each day, which is a total of 6.5 hours, or 390 minutes. If you were to use a chart constructed of hourly bars (candles) you would see 7 periods on the chart, but this would not accurately reflect the price action. If we are to do any analysis of data, we need to make sure we have a consistent data set, if the first period was just 30 minutes (9:30-10:00 a.m.) and the rest were 60 minutes (10:00-11:00, etc.) the data would be flawed. It would be like measuring a standard 12-inch foot with 1 measurement of 1 centimeter and the other 11 measurements with inches. When you add those 12 units up, it does not equal 12 inches.

To obtain equal measurement of price and volume data in our analysis, the number of minutes per candle used must all be divisible into 390. I've demonstrated this in Table B-1.

Number of Minutes # of Candles Per Day	
1	390

2	195
3	130
5	78
6	65
10	39
13	30
15	26
26	15
30	13
39	10
65	6
78	5
130	3
195	2
390	1

Table B-1 Illustration of the relationship between timeframe and number of candles per day.

Timeframe Confusion

Trend trades may seem easy when you see a stock in a strong uptrend. Many participants fail to understand that a stock can have multiple trends on different timeframes. They only see the longer-term upward trajectory of the stock and overlook any strong pullbacks in the uptrend that can result in quick losses.

The remedy to this conflict is to analyze multiple timeframes together for a more complete picture.

A stock in a longer-term uptrend over the last year may be in a downtrend over the last 2 weeks and may have just begun to turn higher on a shorter-term timeframe. These conflicting trends can create timeframe confusion or an emotionally driven purchase of a stock after a longer-term move is well underway. The purchase of a stock that has already moved in the near term makes it more difficult to control risk.

Focus on the Trend, not the Label

The media is always focused on whether we are “in a bull or bear market.” A swing trader’s job is to make money regardless of market conditions. While most stocks will trade in-line with the trends of the overall market, there are always exceptions. Even in the strongest bull markets there are periods of weeks to months where the overall environment does not favor new purchases of stocks.

In the “bearish-periods” of a bull market, it doesn’t make sense to buy stocks that are in near-term downtrends. It is better to either stay on the sidelines in cash and protect your capital or to make tactical short sales. Just the same, in a bear market, some of the fastest short-term moves occur on the upside. Trading these rallies is a risky strategy and only the most skilled traders should attempt to take advantage of these countertrend moves. Whenever a trade is taken against the direction of the primary trend, it should be done with smaller risk in position size and less overnight exposure.





Chart B-3 30-minute chart of a stock that changes from uptrend to downtrend. Chart: TC2000.com

As we know, stocks in downtrends are considered “guilty until proven innocent,” which means we do not trust the rally attempts. It is common for inexperienced traders to get excited about a large move higher with a stock in a downtrend. These are typically “sucker rallies” as they make a lower-high in the short-term trend and then roll back over with a new wave of shares sold by fearful sellers.

The stock in Chart B-2 experienced several strong rallies in the downtrend. The three highlighted sucker rallies even made it up through the declining AVWAP anchored to the peak, but they failed to break the downward trend.

In Chart B-3, a closer examination on the 30-minute timeframe of the last rally above the AVWAP shows the better trade opportunity was to short the stock at the green highlighted area where the stock made a lower-low below the AVWAP anchored to the start of the rally.

Price Targets

Once I have determined if it looks like there is potential for profit relative to the perceived risk, I prefer not to stay focused on a price “target,” but to “listen” to the stock to tell me when to exit. Many people focus too much on an upside target and tell the market what they want for a profit. As a result, they fail to listen to the message of the market. The market does not honor target requests and a profitable trade can turn into a loser if we stubbornly wait for the stock to hit our target.

Once I have determined my risk/reward ratio, my price targets are “higher” for longs and “lower” for shorts. Our job is to listen to the market, adjust, and raise our stops to protect our gains as the price progresses in the trend.

Multiple Timeframe Analysis

Our analysis should begin with a chart constructed of daily price history for the last year or so. This timeframe is simply to make sure our trade candidate is in a primary uptrend (for longs) or downtrend (for shorts). We want to be sure there aren't any large potential levels of Resistance or Support nearby that might slow or halt the momentum.

Trend Alignment

We want to get involved in the stock as the intermediate-term trend (days to weeks) comes "into alignment" with the longer, more powerful trend. This approach allows us to enter the longer-term trend as the intermediate-term trend develops. When the trends of various timeframes move in the same direction, they are "aligned." The goal is to find the ideal point of entry, set our initial stop-loss, and then to manage our winners. Many of the strategies we have explored are guided by this very concept. The strategies section covered the use of shorter timeframes to fine tune our entry points.

Multiple timeframe trend alignment gives us a greater confidence of trend continuation and that allows us to be more aggressive in our position size. Determination of the size of a trade is based largely on where we enter a trend and how we can control our perceived risk. Besides the location of our trade entry, other reasons to adjust position size would include; overall market conditions, news risk such as upcoming earnings reports or a Fed meeting, and even our own personal well-being.

To become proficient at trend alignment strategies, make it a habit to look at stocks on multiple timeframes to gain a better comprehension of how the timeframes flow together. Observe how trends from shorter timeframes coexist, interact, and build upon, the longer-term market structure. One tenet of technical analysis is, "a trend once established is more likely to continue than reverse." The long-term trend is the sum of many shorter-term trends, therefore, we need to wait for evidence the trends are back in alignment before we get involved.

The Longer-Term and the 50-Day Moving Average

"When in doubt, zoom out"

~J.C. Paret

Always be aware of the longer timeframe, even if you do not plan to hold a stock for a long while. The longer-term trends should be respected as it takes a lot of energy in the opposite direction to reverse them. Defer to the longer and more powerful trend if in doubt. If the long-term trend is up, give the benefit of doubt to the bulls and vice versa. Longer timeframes offer greater opportunity for profit, while shorter-term timeframes offer the fastest (more seductive) opportunity to turn a quick profit.

If you cannot find clarity on a longer timeframe, interpret it as the market telling you to avoid the stock for now. Cash is a position. When uncertainty reigns, cash affords you the objective position to wait for your signals for a low-risk entry. As you get better at timelier entries with multiple timeframes, your profitability increase, and you will also find satisfaction from not buying a stock that continues lower.

A quick and easy reference point to determine the primary trend is the slope of the 50-day moving average ("DMA"). If the stock is above a rising 50-DMA, consider it "innocent until proven guilty" and therefore is a candidate for a long trade. If the stock is below a 50-DMA that is sloped lower, it is "guilty until proven innocent." Avoid these latter stocks from the long side or consider them as a candidate for a short sale. When a stock crosses above and below a flat 50-DMA, it shows us a trendless stock that offers no advantage for a long or short sale. The message of the market is clear in these instances, these stocks should be avoided. The direction of the 50-DMA is an efficient way to be sure we know the trend of the stock on the longer timeframe.

All moving averages should be used as a reference point to compare price trends. They should not be considered as automatic levels to do business when they are touched, but rather as a reason to observe the price action on a shorter-term timeframe, where we formulate a plan. We generally give the benefit of doubt to buyers when the 50-DMA trend is higher and to the sellers when the slope is lower. Note, the charts are for the same stock; on the left Chart B-4 shows the weekly moving average over a 10-week period, while Chart B-5 is the 50-day moving average. The increased detail in Chart B-5 arises from that fact that there are five trade days per week.

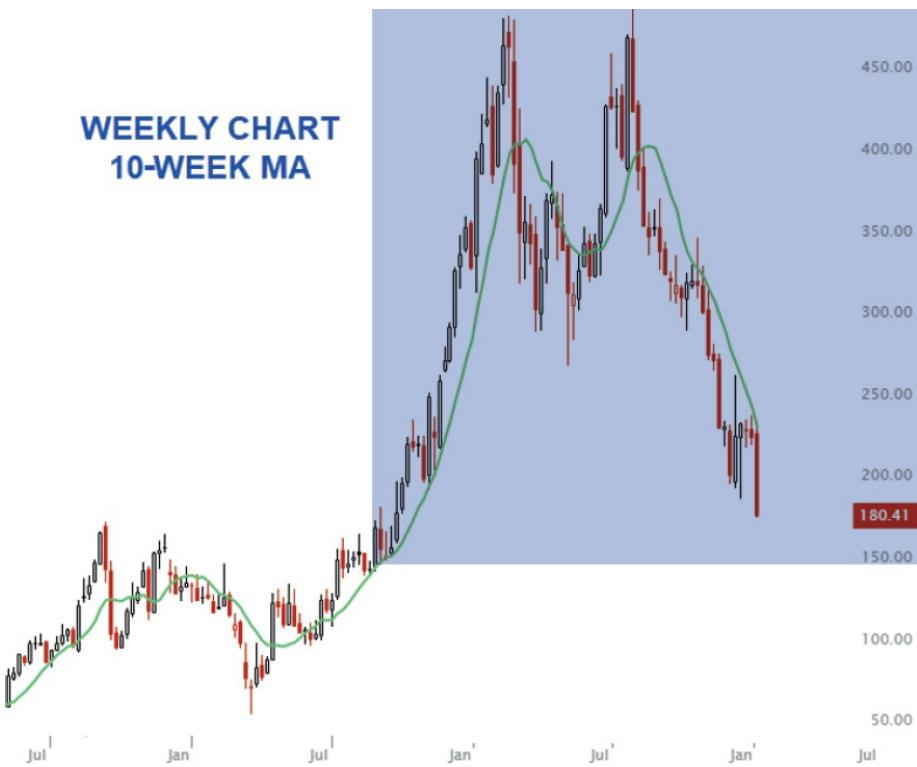


Chart B-4 This weekly chart shows the 10-week moving average. Chart: TC2000.com



Chart B-5 The 50-day moving average on this daily chart shows the last four months of the data in chart B.4. Chart: TC2000.com

Once we have identified the trend on the daily timeframe, the next step is to analyze the intermediate-term timeframe for clues of a possible low-risk, high-probability trade set up.

Intermediate-Term and the 5-Day Moving Average

An intermediate-term timeframe helps us to determine if there is a trade setting up in a low-risk manner. This timeframe allows us to enter the stock as price momentum comes into alignment with the longer timeframe. For the intermediate-term trend, I prefer to use a 30-minute timeframe (for a period of approximately 25-40 days) with a 5-day moving average (5-DMA) as a trend reference point in a similar way to how we use the 50-DMA on a daily timeframe.

Note: Do not confuse the 5-day moving average with a 5-period moving average. You cannot just set the moving average to "5" on any timeframe and see the 5-DMA. It is a 5-DMA only when the chart is constructed of daily candles. The only time you will observe a true 5-DMA on a daily timeframe is when the market is closed; prior to the close it will only be four full days plus whatever part of the day has elapsed since the open. To compensate for this, I never look at the 5-DMA on a daily timeframe, only on shorter (intraday) timeframes. Here is how we accomplish this.



Charts B-6 The daily, 65-minute and 15-minute timeframes all show the 5-day moving average. Charts: TradingView.com

Notice that the location of the moving average for the same stock on different timeframes is in the same location and has the same slope. We want to keep our analysis consistent across various timeframes, so we convert the daily moving average to intraday timeframes with this handy table (B-7).

As noted earlier in the chapter, the market is open 390 minutes per day. Over five days it is open for 1,950 minutes. For example, if we look at the market on a 65-minute timeframe, that means we want to use a 30-period moving average to replicate the average over the last 5 days (1,950 minutes per day/our 30-minute timeframe = 65 periods). On a 15-minute timeframe, the 5-DMA is represented by 130 periods (1950/15 = 130). A little bit of simple math allows us to keep consistency of our analysis in relation to 5-DMA on various timeframes.

Timeframe	# of Candles/Day	5-DMA Equivalent
195	2	10
130	3	15
78	5	25
65	6	30
39	10	50
30	13	65
15	26	130
10	39	195
5	78	390

Table B-7 shows the correct number of periods to use to establish the 5-DMA on intraday timeframes.

Combine Timeframes for Longs

The breakdown below outlines how we want to analyze the intermediate-term trends to plan our trade. When a stock is in a longer-term uptrend, we then look to a shorter timeframe for trend alignment.

Stage 1 Accumulation. This is where we plan our trades. We observe, analyze, and ANTICIPATE the point where buyers will take control. This is the time to assess our price objectives and stop levels to determine our plan of action for when the stock gives us a reason to get involved. This is when we want to answer; where has the stock come from and where it has the potential to go? Then we can determine if there is a sufficient risk/reward ratio setting up to justify the purchase of a new long trade. If the 5-DMA is in decline, or beginning to flatten out, that is a clue to leave our activities to analysis and not take action at this stage.

Stage 2 Markup (Uptrend). As the stock makes a short-term higher-high, which is in alignment with the longer-term uptrend, we want to buy the stock. This is when we PARTICIPATE in what appears to be a continuation of the uptrend on the longer-term timeframe. Stage 2 is also where we manage our winners by raising the stop to just under successive higher-lows as the stock rallies. This is the fun part. The 5-DMA should be flat or starting to advance at this stage. We generally want to buy the stock as it makes its first higher-high on this timeframe.

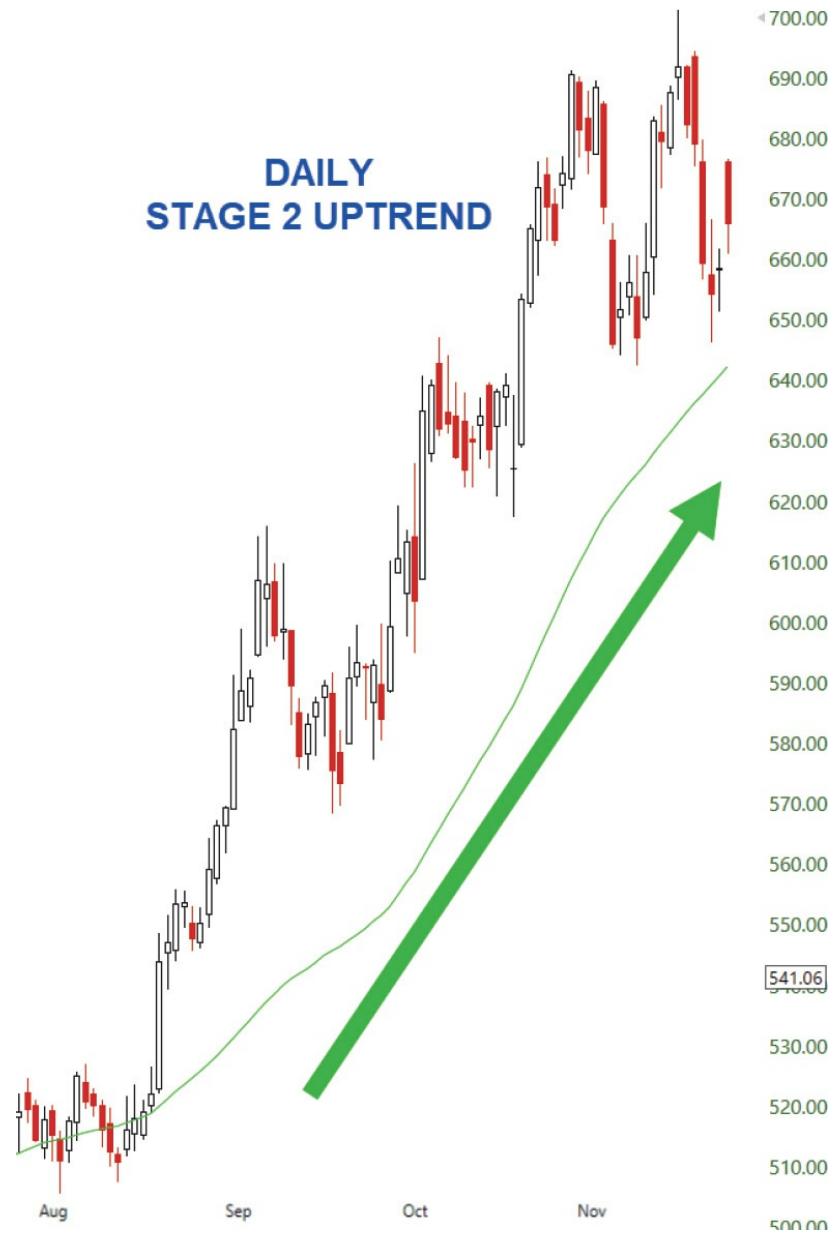


Chart B-8 Shows the daily chart in an uptrend. Chart: TC2000.com

Stage 3 Distribution. This is when the stock shows signs of fatigue and may precede a price pullback, or it may need a “correction through time.” This is a good point to EXIT the position, or at least sell some to lock in partial profits, and tighten the stop on the balance, rather than continue to expose our capital to risk. The angle of ascent of the 5-DMA will slow down or begin to turn sideways at this point.

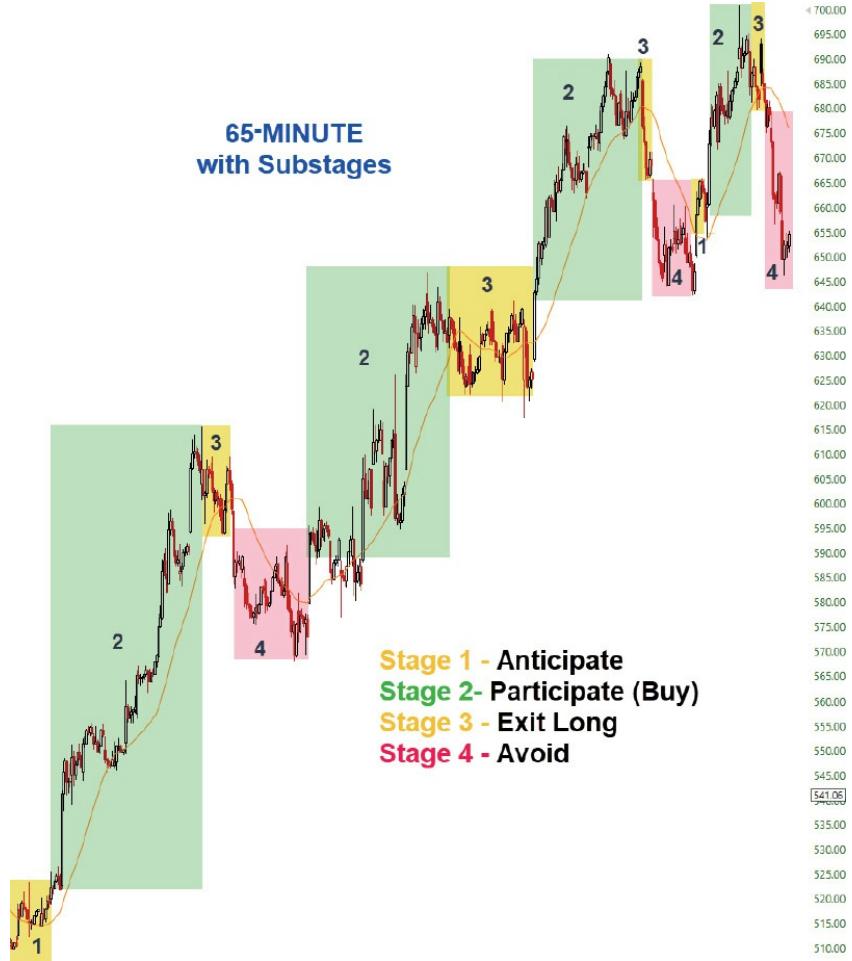


Chart B-9 The same chart as B-8 is shown on a 65-minute timeframe to show the sub-stages of the uptrend. Chart: TC2000.com

Stage 4 Decline (Downtrend). Once the definition of a trend (higher-highs and higher-lows) no longer exists on the timeframe when we entered the stock, there is no reason for a swing trader to continue to hold. When the primary trend is higher, it is likely that the breakdown of price into an intermediate-term downtrend is the start of a pullback, not a longer-term reversal. This means that the odds do not favor profitable short sales. It is better to AVOID these stocks and look for better setups elsewhere.

In Chart B-8 we see the daily chart (with 50-DMA) and in Chart B-9 the same data on a 65-minute timeframe (with 5-Day/30-Period MA). It should be easy to see why the use of more than one timeframe allows us much greater accuracy to determine where the trend of the daily and intraday timeframes become aligned. The numbers on the chart (B-9) are the shorter-term trend. Notice on the 65-minute timeframe, substages can be skipped by the stock, we always give the benefit of the doubt to the longer-term timeframe.

Combine Timeframes for Shorts

The approach to short sales is the exact opposite. We start with a Stage 4 (Decline) stock on the daily timeframe and then look to the intermediate-term timeframe in this way:

Stage 1 Accumulation. This is where we exit our short sale trades. This is when the stock shows signs of fatigue. It may precede a price bounce, or it may need a “correction through time.” This is a good point to EXIT the position or at least buy some back to lock in partial profits and tighten the stop on the balance, rather than continue to expose our capital to risk. The angle of descent of the 5-DMA will slow down or begin to turn sideways at this time.

Stage 2 Markup (Uptrend). Once the definition of a trend (lower-highs and lower-lows) no longer exists on the timeframe we entered the stock, there is no reason for a swing trader to continue to be short. When the primary trend is lower, it is likely that the breakout of price into an intermediate term uptrend is the beginning of a bounce, not a longer-term reversal. This means the odds do not favor profitable short sales. It is better to AVOID these stocks and look for better setups where trends are coming into alignment on the downside.

Stage 3 Distribution. This is when the stock shows signs of fatigue and may precede a price decline. In the short-term stage 3, we observe, analyze, and ANTICIPATE the point where sellers will take control. This is the time to assess our price objectives and stop levels to determine our plan of action when the stock gives us a reason to get involved. This is when we want to be sure we have answered; where has the stock come from and where it has the potential to go? We can then determine if there is sufficient risk/reward ratio setting up to justify a short sale trade.

Stage 4 Decline (Downtrend). As the stock makes a short-term lower-low, which is in alignment with the longer-term down-trend, we want to sell the stock short. This is when we PARTICIPATE in what appears to be a continuation of the downtrend on the longer-term timeframe. Stage 4 is also where we manage our winners by lowering the stop just above successive lower highs as the stock declines. This is the fun part.

The 5-DMA should be flat or starting to decline at the start of this stage and we generally want to short the stock as it makes its first lower-low on this timeframe.

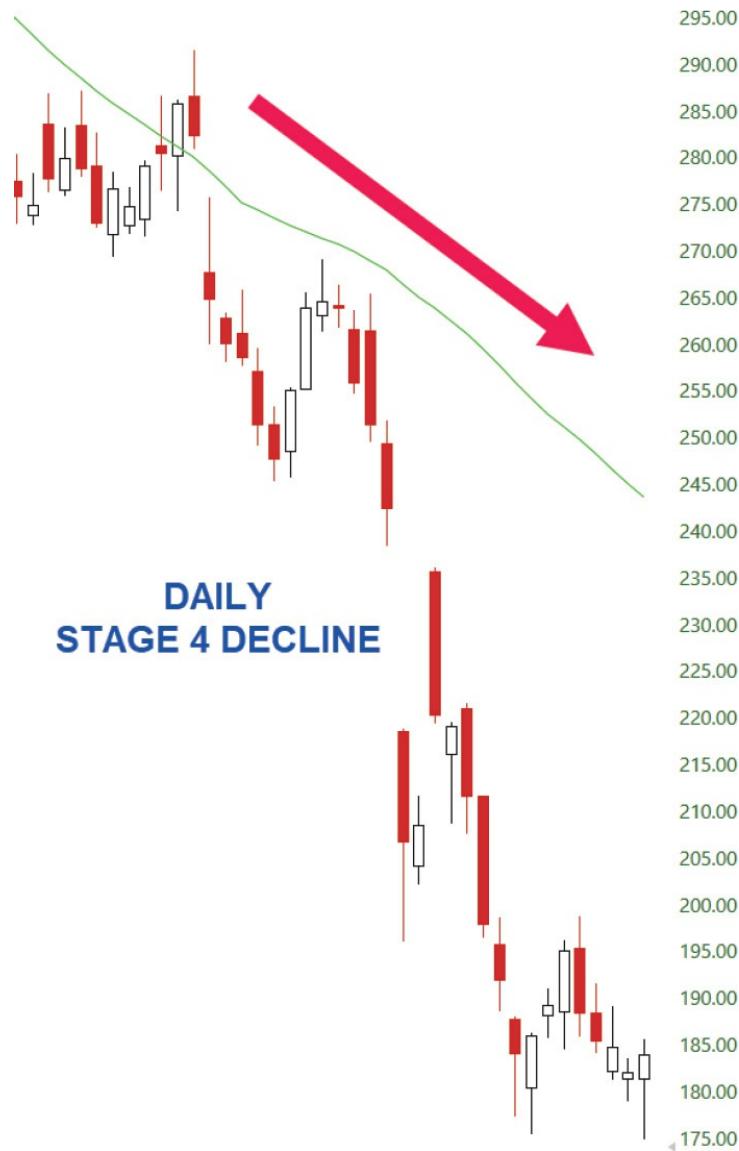


Chart B-10 Shows the daily chart in a downtrend. Chart: TC2000.com



Chart B-11 The same chart as B-10 is shown on a 65-minute timeframe to show the sub-stages of the downtrend. Chart: TC2000.com

When the primary trend on the daily timeframe is lower, we avoid longs and consider short sales. The 65-minute chart on the right shows us the various action points we want to take based on the sub-stages. We want to participate in short sales when the shorter-term trends are aligned with the longer-term trend.

Steps for Multiple Timeframe Analysis

1. Identify the stock as a long or short candidate with the daily timeframe. Do not fight the direction of the 50-day moving average.
2. Consult the intermediate-term timeframe to establish whether the potential profit is worth the perceived risk. Do not fight the direction of the 5-day moving average.
3. Consult a shorter timeframe to fine tune the entry.

Multiple Timeframe Analysis Checklist

- Be aware of the trends on multiple timeframes.
- Are the trends aligned or do they show confusion?
- How do timeframes fit together, or do they diverge?
- The greater the number of timeframes you study to confirm the trend, the greater the probability that your trade will succeed.

- Price action that moves against the larger timeframe tends to reverse back into alignment.
- Use a minimum of three different timeframes for analysis.

There is a tendency for traders to feel as if they must be continually engaged in an active position, but when there are mixed trend signals across various timeframes, it is best to have a more cautious stance until trends align and show lower-risk entries. Cash is a position.

Timeframe Transition

Common wisdom says to stick to the timeframe you intended at the onset of your trade, and for good reason. All too often, short-term traders will find a reason to justify hanging onto an unprofitable trade longer than originally planned. Similarly, someone who intends to hold a stock for the long-term should fight the urge to take a quick profit.

The only time you should allow a short-term trade to be transitioned to a longer timeframe is if the stock is in a profitable position and you can still manage risk for the trade. It is acceptable to start a trade as a day trade, and when the stock moves in your favor, take some of the risk off with the sale of a piece of it and then hold the balance for gains into the next day or coming days. For a longer-term investor, the only reason to cut the trade early is to protect capital if the story has changed or if the stop-loss is violated.

The decision to hold longer than expected should be made from a position of strength, not weakness. We always want to protect capital first and then maximize the gains if the market allows it.

It is said that bulls and bears make money and pigs get slaughtered. I have updated that phrase to; “Bulls and bears make money, greedy pigs get slaughtered, and disciplined pigs get rich.” If your goal is large gains, do it in a disciplined way.

“Simplicity is the ultimate sophistication.”

-Leonardo da Vinci

APPENDIX C: SOURCES FOR ANCHORED VWAP ON CHARTS

As of the first publication date for this book and to my knowledge, this list of sources is comprehensive.

Fidelity Active Trader Pro www.fidelity.com

Optuma www.optuma.com

Quantower www.quantower.com

StockCharts www.stockcharts.com

TC2000 www.tc2000.com

Tradytics www.tradytics.com

Trade-Ideas www.trade-ideas.com

TradingView www.tradingview.com

TrendSpider www.trendspider.com

Wealth Charts www.wealthcharts.com

Yahoo Finance www.finance.yahoo.com

These following platforms below do not have the full “point and click anchor” AVWAP ability but there may be third party apps you can find on Google to make the anchoring easier.

Chartmill www.chartmill.com

Ninja Trader www.ninjatrader.com

Think or Swim from www.tdameritrade.com

Tradovate www.tradovate.com

GLOSSARY

TERM	MEANING IN THIS BOOK
Anchor Point	The start of a new AVWAP/VWAP. Common anchor points can be from; swing highs and lows, new time periods (day, week, month, year, etc) earnings reports, gaps, large volume levels, etc. VWAP anchor is always and only at the start of the day.
Anchored Volume Weighted Average Price (AVWAP)	The AVWAP is the same as the VWAP except that the calculation of the start point (the anchor) is set by the user at a specific meaningful point, not at the start of the new day.
Bear (Bearish) Market	A market environment in general decline over a period of time.
Bounce	Refers to a short-term rally in a downtrend.
Breakdown	When a stock price drops below a level of prior support and sellers take control of the trend.
Breakout	When a stock price climbs above a level of prior resistance and the buyers take control of the trend.
Bull (Bullish) Market	A market environment in a general advance over a period of time.
Candle	A style of a financial chart that represents the open and close in the body and the low and high in the “wicks.”
Chase	To enter a stock after a large move has already occurred and the stock is already extended from a low-risk entry point.
Cheat Entry	To enter a trade before all the rules of your strategy have lined-up properly.
Choppy Market Conditions	A market where prices rise and fall for a period of time that makes them higher-risk trade candidates.
Consolidation	A period of sideways price movement that occurs after a trend.
Dark Pools	Private exchanges where stock transactions occur and are not immediately viewable by the public.
Dollar Cost Average (DCA)	When you invest a fixed amount of money on a regular time interval.
DMA - Day Moving Average	The average of the daily close price of a stock over a certain number of days. It “moves” as each new day is added and the oldest day is dropped off of the calculation.
Downtrend	When a market is in a downtrend, it makes a series of lower-highs and lower-lows for the timeframe being studied.
Earnings Season	The four times per year when earnings are released. It is typically the 2-6 week period after the end of companies' fiscal quarters, December, March, June, and September.
Edge	An approach that gives a market participant a real or perceived advantage over other participants.
Exchange Traded Fund (ETF)	Combines the diversification benefits of a mutual fund, but trades in real-time like an individual stock on an exchange.
Exit	To close out a position, to sell a long stock or to cover a short position.
Extended Hours Trading	Trading that occurs outside of the regular trading hours.
The Federal Open Market Committee (FOMC)	A committee within the Federal Reserve System charged with making decisions about interest rates and the growth of the US money supply.
Fear Of Missing Out (“FOMO”)	The feeling you will miss out on a great opportunity that other people are involved in. FOMO is often the trigger to make poor trade decisions.
Fractal	Patterns that repeat at different scales. In the stock market, it is the repetition of patterns on different timeframes and for different assets.
Front Run	To enter a trade in advance of non-public knowledge of a large transaction that might influence the price of the stock.
Gap	A gap represents a sudden shift in the stock's valuation that leaves an area on the chart without any trade activity.
Types of Gaps: <i>Breakaway Gap</i>	A breakaway gap occurs when a stock breaks free of a longer-term consolidation (Stage 1 or 3), usually with a large

increase in volume.

Continuation Gap

A continuation gap is also known as a running or measuring gap. We find these gaps in stocks where there is an established trend that likely began with a breakaway gap. Because the trend already exists, these gaps represent a continuation, and often an acceleration, of the trend.

Exhaustion Gap

Exhaustion gaps occur near the end of a major trend. The stock will reverse the direction of the gap and close at the extreme lower-end.

Gap Down

A gap down occurs when the daily open price is lower than the previous day's close.

Gap Up

A gap up occurs when the daily open price is higher than the previous day's close.

Handoff

The placement of a new anchor points to establish a new AVWAP is to measure the acceleration of a trend.

Hedge (Hedging)

The use of one financial product to reduce the risk of the price movement of a related transaction.

Hypothecation

Use of an asset as collateral in exchange for a stock loan. A hypothecation agreement pledges a customer's securities that were purchased on margin as collateral for the loan.

Interday

A trade that is held through the close of the market day and held overnight, and possibly longer.

Intraday

A trade taken after the market opens and is exited before the close on the same day.

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Initial Public Offering (IPO)

The process where a private company first sells shares to the public to raise capital. It is the first time the public can own a share of the company.

Level of Interest

An area on a chart worth paying attention to and studying on a shorter timeframe to look for evidence of a possible turn in momentum or entry or exit point.

Limit Order

A type of order to buy or sell a stock at a specific price or better.

Long Position

A trader or investor owns a financial position they expect to increase in value.

Margin Call

A shortfall in trader equity may require the customer to put up additional funds or close positions to reduce losses.

Market Impact Cost

The effect a buyer or seller has on the price of the market where they are involved.

Market Maker

A securities dealer who commits to buy or sell at specified times and prices.

Momentum Trade

A strategy that capitalizes on making money trading stocks in an established trend.

Only Price Pays

We trade to make money. Price is the objective measurement of success. Price action receives the most attention in technical analysis. Price is the only thing that pays us.

Pinch

A compression of energy between two different AVWAPs. When the stock exits the Pinch, it is often an excellent trade in the break's direction due to the energy release.

Pullback

A price move that is counter to the primary trend, but is not strong enough to reverse the trend.

R-Multiple

The R-Multiple is the amount that you profited or lost in terms of your initial risk (e.g. if your initial risk is \$100 and you gained \$250, your profit is 2.5R).

Regular Trade Hours (RTH)	For the US stock market, it refers to the trade hours of the NYSE and NASDAQ, 9:30 a.m. to 4 p.m EDT, excluding stock market holidays.
Resistance	An area where sellers provide enough pressure (supply) to overwhelm the buying (demand) and prices “resist” going higher.
Rip	Refers to a short-term, quick rally in a downtrend.
Setup	A trade plan that has a predetermined entry point, an approximate price objective and a stop loss level.
Short Interest (SIR)	The number of shares sold short (short interest) for an individual stock, divided by its average daily trade volume over the previous two weeks.
Short Position	The sale of a stock that is not owned by the seller. Traders with a short position expect the stock to decline in price.
Short Squeeze	A short squeeze develops when those who sold the stock short, with the expectation it would continue to decline in price, change their minds about the trade and attempt to cover their position before the market advances and they accumulate large/larger losses. The occurrence of a rapidly rising stock price with a large short interest is known as a short squeeze.
Market Structure Chart:	
Stage 1 - Accumulation	Neutral period of a stock that is preceded by the decline. The early part of this stage is the time to exit short positions. The later part of this stage is when we anticipate and plan new long trades.
Stage 2- Markup (Uptrend)	The phase of a stock where prices rise. These stocks are defined by higher-highs and higher-lows. This is when we participate in long trades and avoid short sales.
Stage 3- Distribution	Neutral period of a stock that is preceded by an Uptrend. This is when to exit long positions and plan for new short positions.
Stage 4 - Decline (Downtrend)	The phase of a stock where prices decline. These stocks are defined by lower-highs and lower-lows. This is when we avoid long trades and participate in short sales.
Stop Loss	A type of order which is used to limit the loss in a stock position.
Trend Alignment	Use of multiple timeframe analysis; longer-term to identify trend and shorter-term to make timing decisions to enter the trend at a low-risk, high-probability point.
5-DMA	5-Day Moving Average. The simple moving average as seen on intraday charts.
50-DMA	50-Day Moving Average. The average closing price of a stock over the last 50 days.

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Lastly, I want to thank you, the reader. I hope to make a meaningful impact and am humbled to have my work valued by so many smart people.

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READER REWARDS

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To continue your market education, you are invited to take advantage of a one-year Basic Alphatrends membership subscription (a \$299 value).

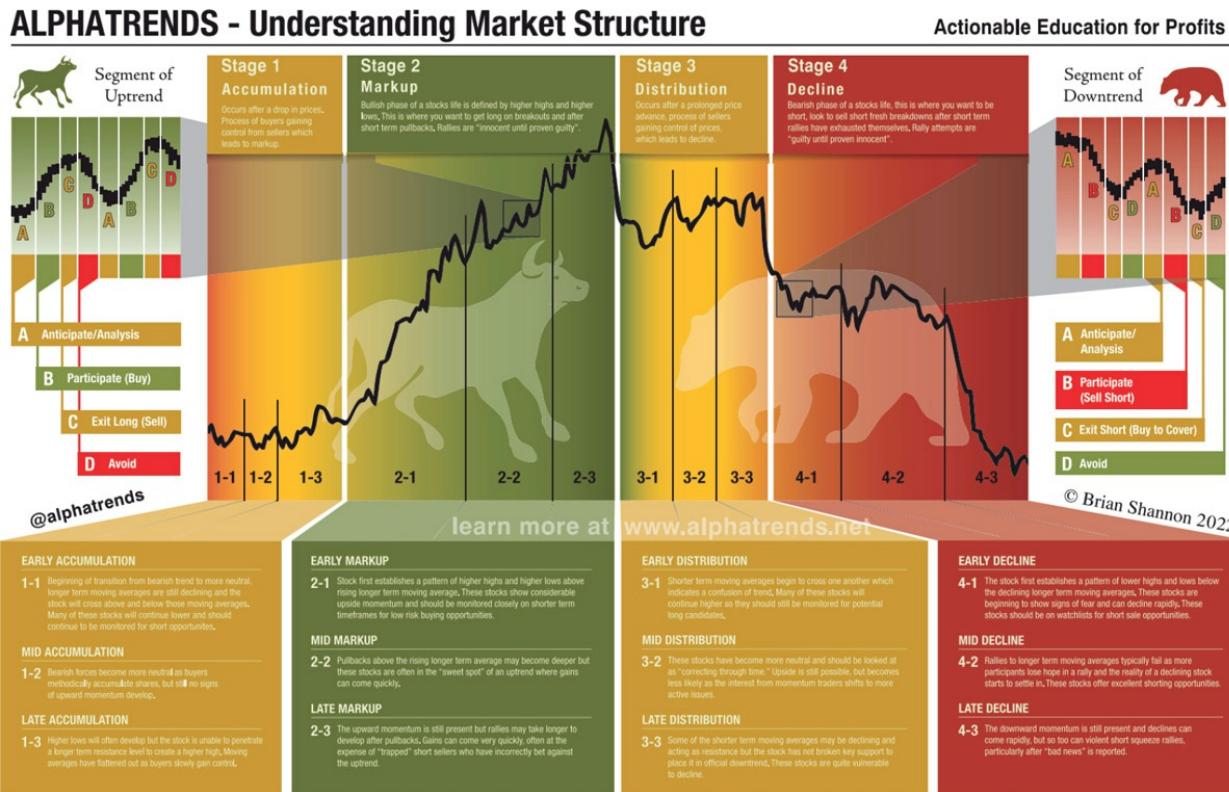
This subscription is an end-of-day video analysis of key market ETFs including; SPY, QQQ, IWM, SMH, and IBB. These daily videos are a daily "masterclass" in AVWAP, and other techniques described in this book. In addition to the educational aspect they offer actionable ETF trade ideas.

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Offer expires on March 31, 2024.



MORE PRAISE

Brian's original book, Technical Analysis Using Multiple Timeframes, is the top book anyone can read to understand the structure of price and trend. He builds on those concepts, going in depth on the use of the AAVWAP to find low-risk entries in alignment with the trend. Brian is the trend setter in using AAVWAP in active trading. This is a must-read for anyone serious about incorporating it into their strategy.

Oliver Kell Trader, 2020 Investing Champion @1charts6

I have followed Brian for years and credit him and his first book for a lot of my trading success. This book takes that to a different level with a completely different way of looking at the markets. Truly a must-read for any trader looking to improve their trading or investing process.

Michael Nauss, CMT @MichaelNaussCMT

Over the years, I've had the great pleasure of watching Brian skillfully trade the markets. Brian is known for precise entries and exits with an amazing ability to repeat his trade executions much like a machine. His use of Anchored VWAP and the details shared here offer a glimpse into how a true professional hones his craft and becomes a master.

Ben Bennett @pattermprofits

Brian Shannon is what I consider a true technician, keeping his focus squarely on the raw data of the market: volume and price. His teaching of the VWAP tools and methodology are steeped in real-world examples and explanations of why it's useful that are written in a clear and easy-to-follow format. After learning about VWAP from Brian, it's become a tool I consistently use on my own charts, elevating my market analysis.

Andrew Thrasher, CMT, Portfolio Manager @AndrewThrasher

Price tells you one thing. Volume another. There isn't a better person than Brian Shannon to help you understand the relationship between the two. Institutions leave footprints and whether you trade long or short timeframes, breakouts or pullbacks, or stocks or commodities, it's critical to know who is in control of the instrument—buyers or sellers—in order to be on the right side of the bullish or bearish sentiment. Brian's study on AAVWAP is the best resource to help you understand this transition of ideology and to improve your trading in a very meaningful way.

Michael Martin, Author, *The Inner Voice of Trading* @Martin_Kronicle

Brian Shannon is one of the preeminent teachers and practitioners of modern trading techniques. This book represents the next evolution of his philosophy.

Michael Batnick, Managing Partner, Ritholtz Wealth Management @michaelbatnick

From the viewpoint of a 20-year technical trader who has learned most of his craft from the school of hard knocks, Brian's book was a welcomed read. I've attempted to read other books on the subject but found them tedious, boring and quite often hard to understand. Brian manages to engage the reader and teaches in plain language the merits of VWAP and how and why he believes it works so well for trading. Always there to remind you that this tool is not a crystal ball, he invites you to view VWAP as he does, but encourages you to find how it works best in your trading. The rookie trader who is looking to explore more about VWAP will find this book invaluable as well as the season vet who can apply some of Brian's ideas to their repertoire. I am a devout VWAP trader and found the book validating some of my own ideas as well.

Kenny Glick, HitTheBid.com @hitthebidradio

I am lucky to live an investing life and Brian has done a great job explaining how he has done the same. This book will help thousands of others become better investors and traders and hopefully live a worthwhile investing life.

Howard Lindzon, General Partner, Social Leverage; Co-Founder, Stocktwits @howardlindzon

This book is essential reading for anyone who uses charts/technicals to navigate markets. Stylistically, the Maximum Trading Gains with the Anchored VWAP separates itself from all the other tools in the trader's toolbox. I find the reliability and consistency in searching for price is the most valuable part of the AAVWAP. Brian easily explains how to use the AAVWAP as a valid weapon in these book chapters. Price, time and volume are what you'll learn in the basic section of this book, while using other important indicators to confirm the movement.

In my years of trading there is nothing better than finding price levels using the AAVWAP. The tools in this book have helped me to take my trading/investing game in stocks and options up to another level. Buy this book, and so will you.

Bob Lang, MBA, Author, *Know Your Options* @aztecs99

Brian provides an excellent breakdown of the markets both in terms of the science of technical analysis and the art of trading. His experience shines through as he breaks down price action and key AAVWAP concepts in an easy to understand fashion and provides actionable, practical strategies that traders can adopt and excel with. I would highly recommend this book to any trader looking to add new tools to their repertoire.

Richard Moglen, Director of Education, TraderLion.com @RichardMoglen

Brian warned me that this was a highly technical book. But it is also a very thoughtful and well-researched book. I spent a 9-year career on Wall Street without ever spending much time thinking of the implications of VWAP. Now I know.

Jared Dillian, Editor, *The Daily Dirtnap*, DailyDirtNap.com @dailydirtnap

Brian Shannon does an excellent job of breaking down the complex topic of Anchored VWAP into its building blocks, a core component of any institutional trading strategy. But he does not stop there. Instead, he continues to delve into many AAVWAP strategies to illustrate and educate the reader on how to employ them in their own trading. Another well done gem from Brian. Bravo.

Greg Harmon, CMT, CFA, President, Dragonfly Capital, DragonFlyCap.com @harmongreg

When any trader or investor makes decisions based on inputs that actually matter to the markets, they instantly gain edge. AAVWAP is one of those edge defining inputs and once again, Brian Shannon has given the trading and investing world a key to unlock its potential. AAVWAP has been a game changer for me and the traders our firm develops. This book is soon to be a classic. If you want to make better trading and investing decisions and don't buy this book.... I'm not sure how else to help you.

Josh Schuler, MBA, CTA, Founder, Trade With Profile @tradewithprof

Brian Shannon shares many trading gems while sorting through the puzzle pieces of technical analysis to provide active traders with an edge using anchored volume-weighted average price (AAVWAP) trends. The beauty of his approach is that it tunes out the noise all traders need to deal with and focuses on the undeniable and essential elements of price, volume, and time. Brian devotes a chapter to IPOs and shows how AAVWAP can be applied to multiple timeframes when analyzing new issues with limited trading history. New and experienced traders alike are sure to find this book invaluable while honing their trading strategy.

Eve Boboch, Portfolio Manager, Co-Author, *The Lifecycle Trade* @EBoboch

The Anchored-VWAP is one of the most powerful discretionary indicators for traders. It very efficiently demonstrates the mass psychology of the market by putting in one place all the elements of trading: time, volume, and price. Brian Shannon has done an excellent job pioneering and developing this indicator, as well as teaching traders how to effectively use it.

Andrew Aziz CEO and Founder, TradingTerminal.com @BearBullTraders

Whether you are a newbie, or seasoned pro looking to boost your trading performance, or improve your risk management process, Brian's book is a must-read. He explains in a very clear and concise manner exactly what the AAVWAP is, how it works, and why it works.

Ross Haber, Chief Market Strategist, TraderLion @TraderLion_

Maximum Trading Gains with the Anchored VWAP is one of those rare books that stakes its place among essential texts for traders immediately upon publication. From history to strategy to application,

Brian shares the definitive take on this critical measure with a deftness and clarity that can only come from a pioneer in the study of price behavior.

Dr. Phil Pearlman, Founder, Pearl Institute @ppearlman

A fantastic book that thoroughly yet clearly explains the mechanics behind institutional order flow and how to use it to make a profit in the market using Brian's unique VWAP tools and methods. It is helpful for new and experienced investors.

Matt Caruso, CarusoInsights.com @Trader_mcaruso

Brian Shannon's book is the definitive work on the AVWAP indicator. Brian is one of the brightest minds on the Market AVWAP indicator, and he writes with passion and conviction about his experience with his Anchored VWAP concept. Successful trading comes from experience, and Brian has years of first-hand knowledge of one of the most powerful trading indicators: The Anchored VWAP. Let Brian show you how to gain a serious edge in your trading by using the AVWAP.

Matt Bowen, Creator of the VWAP-MAP, NOBStools.com @NOBStrades

Brian Shannon has truly expanded the technical analysis tool-kit with Anchored VWAP. This new perspective on the alignment of price, volume, and time takes one of the key strategies for institutional investors and puts it in the hands of individual traders. This is a must-read for anyone trying to successfully navigate the forces of supply and demand.

David Keller, CMT, Chief Market Strategist, StockCharts.com @DKellerCMT

Anchored VWAP is an invaluable tool in price action analysis. Brian's expert teachings about VWAP including this helpful book as a companion is a must-owned resource for anyone who wishes to improve and maximize their trading strategies.

Charles E. Kirk, The Kirk Report, www.kirkreport.com

Brian breaks down the supply and demand dynamics that drive markets in an intuitive yet simple manner. He explains complex topics in a way that any trader can understand and relate to. This book is a refreshing reminder to focus on price before all else.

Steve Strazza, Strazzaletter.com, @sstrazza

After twenty years of investing, this book has added new tools to my technical analysis toolkit. As a William O'Neil devotee with a specialization in IPOs, I found Brian's use of AVWAP to be very valuable. It's sure to enhance any investor's trading style.

Kathy Donnelly, Co-author of The Lifecycle Trade, @KGD_Investor

MAXIMUM TRADING GAINS WITH ANCHORED VWAP

Traders using VWAP has been the biggest change that I've seen in my 30 years on the trading floor; brokers became more worried about volume than price. They just wanted to be the "average". Brian has encapsulated that change through his AVWAP research and applied it on multiple time frames. To me this has been the most useful and rewarding addition to the field of technical analysis, and I'm so happy he has shared his process with the world.

~**Jay Woods, CMT, former NYSE Executive Governor, Chief Market Strategist at DriveWealth,**
@JayWoods3

The truth is that I never used or even looked at VWAP as a trading tool. Brian Shannon's book provides a clear explanation of how and why anchoring VWAP to key market points (using a calculation based on all data subsequent to those points) can be used both as a source of trade entry signals and risk management exits. His book has inspired me to devote some time to exploring the Anchored VWAP (AVWAP) as a potential trading tool.

~**Jack Schwager, author of the Market Wizard book series, @jackschwager**

Brian has put together an easy-to-understand book that convincingly states the case for using AVWAP as a way to increase profitability while limiting risk. The book is written from the perspective that each trader is different and should find his own approach to using AVWAP. After covering AVWAP basics, Brian dives right in with specific strategies. Highly recommended!

~**Kevin Marder, Co-founder MarketWatch, @mardermarket**

In the world of technical price analysis, Brian Shannon has reached the pinnacle of excellence. I count Brian as a real peer. His book on Anchored VWAP will stand as an authoritative textbook on the subject.

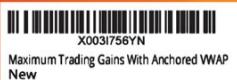
~**Peter Brandt, author and trader, @PeterBrandt**

Innovation is rare in technical analysis as the field has been worked intensively for a long time, and the low-hanging fruit is long gone. I first came across Volume Weighted Average Price, VWAP as it is known, many years ago as a trading technique for large orders used mostly by institutions. More recently it has surfaced as an analytical technique, Anchored VWAP. To my mind that is a real innovation and Brian Shannon is the analyst to tell you what it is and how to use it.

~**John Bollinger, CFA, CMT, Bollinger Capital Management, @bbbands**

I have used charts and technical analysis for more than 30 years and during that time I've tried a gazillion combinations and methods. Currently, I invite the best Wall Street technicians on my show to share their knowledge and Brian stood out immediately as someone that had something unique and special. Anchored VWAP is a tool all serious investors and traders should become familiar with and incorporate in their decision-making process.

~**Charles Payne, CEO Wall Street Strategies, financial television anchor, @cvpayne**



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