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TECHNICAL ANALYSIS OF PRICE CHARTS  
BAR BY BAR FOR THE SERIOUS TRADER

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AL BROOKS



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**John Wiley & Sons, Inc.**

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*I would like to dedicate this book to my daughter, Skylar Brooks, who is tender, sweet, sensitive, incredibly accomplished, trusting, and persistently hopeful. She wants the world to be a better place and is doing far more than the rest of us to make it happen.*

# Acknowledgments

My primary goal is to present a series of comprehensive books on price action, and the greatest concern among readers was how difficult my earlier book, *Reading Price Charts Bar by Bar*, was to read. I am deeply appreciative of all of the constructive comments that readers have provided and those from the participants in my daily live webinars. Many of these comments were incredibly insightful and I have incorporated them in this current edition. I am also thankful to all of the traders who have been in my live trading room, because they have given me the opportunity to say things repeatedly until I could clearly articulate what I am seeing and doing. They have also asked many questions that have helped me find the words to communicate more effectively, and I have put those words in these books.

I would like to give a special thank-you to Victor Brancale, who spent long hours proofreading the manuscripts and providing hundreds of very helpful edits and suggestions, and to Robert Gjerde, who built and administers my website and has given me candid feedback on the chat room and the website. Finally, I want to thank Ginger Szala, the Group Editorial Director of *Futures* magazine, for giving me ongoing opportunities to publish articles and speak in webinars, and for regularly giving me very helpful advice on how to become more involved with the trading community.

breakout to resume and the pullback is a setup for that resumption. If instead you thought that the breakout would fail, you would not use the term *pullback* and instead would see the pullback as a failed breakout. For example, if there was a five-bar breakout above a bear trend line but you believed that the bear trend would continue, you would be considering shorting this bear flag and not looking to buy a pullback immediately after it broke out to the downside.

**breakout test** A breakout pullback that comes close to the original entry price to test a breakeven stop. It may overshoot it or undershoot it by a few ticks. It can occur within a bar or two of entry or after an extended move or even 20 or more bars later.

**bull reversal** A change in trend from a downtrend to an uptrend (a bull trend).

**buying pressure** Strong bulls are asserting themselves and their buying is creating bull trend bars, bars with tails at the bottoms, and two-bar bull reversals. The effect is cumulative and usually is eventually followed by higher prices.

**candle** A chart representation of price action in which the body is the area between the open and the close. If the close is above the open, it is a bull candle and is shown as white. If it is below, it is a bear candle and is black. The lines above and below are called tails (some technicians call them wicks or shadows).

**chart type** A line, bar, candle, volume, tick, or other type of chart.

**climax** A move that has gone too far too fast and has now reversed direction to either a trading range or an opposite trend. Most climaxes end with trend channel overshoots and reversals, but most of those reversals result in trading ranges and not an opposite trend.

**countertrend** A trade or setup that is in the opposite direction from the current trend (the current always-in direction). This is a losing strategy for most traders since the risk is usually at least as large as the reward and the probability is rarely high enough to make the trader's equation favorable.

**countertrend scalp** A trade taken in the belief that there is more to go in the trend but that a small pullback is due; you enter countertrend to capture a small profit as that small pullback is forming. This is usually a mistake and should be avoided.

**day trade** A trade where the intent is to exit on the day of entry.

**directional probability** The probability that the market will move either up or down any number of ticks before it reaches a certain number of ticks in the opposite direction. If you are looking at an equidistant move up and down, it hovers around 50 percent most of the time, which means that there is a 50–50 chance that the market will move up by X ticks before it moves down X ticks, and a 50–50 chance that it will move down X ticks before it moves up X ticks.



# List of Terms Used in This Book

All of these terms are defined in a practical way to be helpful to traders and not necessarily in the theoretical way often described by technicians.

**always in** If you have to be in the market at all times, either long or short, this is whatever your current position is (always in long or always in short). If at any time you are forced to decide between initiating a long or a short trade and are confident in your choice, then the market is in always-in mode at that moment. Almost all of these trades require a spike in the direction of the trend before traders will have confidence.

**barbwire** A trading range of three or more bars that largely overlap and one or more is a doji. It is a type of tight trading range with prominent tails and often relatively large bars.

**bar pullback** In an upswing, a bar pullback is a bar with a low below the low of the prior bar. In a downswing, it is a bar with a high above that of the prior bar.

**bear reversal** A change in trend from up to down (a bear trend).

**blown account** An account that your losses have reduced below the minimum margin requirements set by your broker, and you will not be allowed to place a trade unless you deposit more money.

**breakout** The high or low of the current bar extends beyond some prior price of significance such as a swing high or low, the high or low of any prior bar, a trend line, or a trend channel.

**breakout bar (or bar breakout)** A bar that creates a breakout. It is usually a strong trend bar.

**breakout mode** A setup where a breakout in either direction should have follow-through.

**breakout pullback** A small pullback of one to about five bars that occurs within a few bars after a breakout. Since you see it as a pullback, you are expecting the

**doji** A candle with a small body or no body at all. On a 5 minute chart, the body would be only one or two ticks; but on a daily chart, the body might be 10 or more ticks and still appear almost nonexistent. Neither the bulls nor the bears control the bar. All bars are either trend bars or nontrend bars, and those nontrend bars are called dojis.

**double bottom** A chart formation in which the low of the current bar is about the same as the low of a prior swing low. That prior low can be just one bar earlier or 20 or more bars earlier. It does not have to be at the low of the day, and it commonly forms in bull flags (a double bottom bull flag).

**double bottom bull flag** A pause or bull flag in a bull trend that has two spikes down to around the same price and then reverses back into a bull trend.

**double bottom pullback** A buy setup composed of a double bottom followed by a deep pullback that forms a higher low.

**double top** A chart formation in which the high of the current bar is about the same as the high of a prior swing high. That prior high can be just one bar earlier or 20 or more bars earlier. It does not have to be at the high of the day, and it commonly forms in bear flags (a double top bear flag).

**double top bear flag** A pause or bear flag in a bear trend that has two spikes up to around the same price and then reverses back into a bear trend.

**double top pullback** A sell setup composed of a double top followed by a deep pullback that forms a lower high.

**early longs** Traders who buy as a bull signal bar is forming rather than waiting for it to close and then entering on a buy stop at one tick above its high.

**early shorts** Traders who sell as a bear signal bar is forming rather than waiting for it to close and then entering on a sell stop at one tick below its low.

**edge** A setup with a positive trader's equation. The trader has a mathematical advantage if he trades the setup. Edges are always small and fleeting because they need someone on the other side, and the market is filled with smart traders who won't allow an edge to be big and persistent.

**EMA** See *exponential moving average (EMA)*.

**entry bar** The bar during which a trade is entered.

**exponential moving average (EMA)** The charts in these books use a 20-bar exponential moving average, but any moving average can be useful.

**fade** To place a trade in the opposite direction of the trend (for example, selling a bull breakout that you expect to fail and reverse downward).

**failed failure** A failure that fails, resuming in the direction of the original breakout, and therefore a breakout pullback. Since it is a second signal, it is more

reliable. For example, if there is a breakout above a trading range and the bar after the breakout is a bear reversal bar, if the market trades below that bar, the breakout has failed. If the market then trades above the high of a prior bar within the next few bars, the failed breakout has failed and now the breakout is resuming. This means that the failed breakout became a small bull flag and just a pullback from the breakout.

**failure (a failed move)** A move where the protective stop is hit before a scalper's profit is secured or before the trader's objective is reached, usually leading to a move in the opposite direction as trapped traders are forced to exit at a loss. Currently, a scalper's target in the Emini of four ticks usually requires a six-tick move, and a target in the QQQQ of 10 ticks usually requires a move of 12 cents.

**false** Failed, failure.

**five-tick failure** A trade in the Emini that reaches five ticks beyond the signal bar and then reverses. For example, a breakout of a bull flag runs five ticks, and once the bar closes, the next bar has a low that is lower. Most limit orders to take a one-point profit would fail to get filled since a move usually has to go one tick beyond the order before it is filled. It is often a setup for a trade in the opposite direction.

**flat** Refers to a trader who is not currently holding any positions.

**follow-through** After the initial move, like a breakout, it is one or more bars that extend the move. Traders like to see follow-through on the next bar and on the several bars after that, hoping for a trend where they stand to make more profit.

**follow-through bar** A bar that creates follow-through after the entry bar; it is usually the next bar but sometimes forms a couple of bars later.

**fractal** Every pattern is a fractal of a pattern on a higher time frame chart. This means that every pattern is a micro pattern on a higher time frame and every micro pattern is a standard pattern on a smaller time frame.

**gap** A space between any two price bars on the chart. An opening gap is a common occurrence and is present if the open of the first bar of today is beyond the high or low of the prior bar (the last bar of yesterday) or of the entire day. A moving average gap is present when the low of a bar is above a flat or falling moving average, or the high of a bar is below a flat or rising moving average. Traditional gaps (breakout, measuring, and exhaustion) on daily charts have intraday equivalents in the form of various trend bars.

**gap bar** See *moving average gap bar*.

**gap reversal** A formation in which the current bar extends one tick beyond the prior bar back into the gap. For example, if there is a gap up open and the second bar of the day trades one tick below the low of the first bar, this is a gap reversal.

**HFT** See *high-frequency trading (HFT)*.

**higher high** A swing high that is higher than a previous swing high.

**higher low** A swing low that is higher than a previous swing low.

**higher time frame (HTF)** A chart covering the same amount of time as the current chart, but having fewer bars. For example, compared to the day session 5 minute Emini chart on an average day, examples of higher time frame charts include a 15 minute chart, a tick chart with 25,000 ticks per bar, and a volume chart with 100,000 contracts per bar (each of these charts usually has fewer than 30 bars on an average day, compared to the 81 bars on the 5 minute chart).

**high-frequency trading (HFT)** Also known as algorithmic trading or black box trading, it is a type of program trading where firms place millions of orders a day in thousands of stocks to scalp profits as small as a penny, and the trading is based on statistical analysis rather than fundamentals.

**high/low 1 or 2** Either a high 1 or 2 or a low 1 or 2.

**high 1, 2, 3, or 4** A high 1 is a bar with a high above the prior bar in a bull flag or near the bottom of a trading range. If there is then a bar with a lower high (it can occur one or several bars later), the next bar in this correction whose high is above the prior bar's high is a high 2. Third and fourth occurrences are a high 3 and 4. A high 3 is a wedge bull flag variant.

**HTF** See *higher time frame (HTF)*.

**ii** Consecutive inside bars, where the second is inside the first. At the end of a leg, it is a breakout mode setup and can become a flag or a reversal setup. A less reliable version is a "bodies-only ii," where you ignore the tails. Here, the second body is inside the first body, which is inside the body before it.

**iii** Three inside bars in a row, and a somewhat more reliable pattern than an ii.

**inside bar** A bar with a high that is at or below the high of the prior bar and a low that is at or above the low of the prior bar.

**institution** Also called the smart money, it can be a pension fund, hedge fund, insurance company, bank, broker, large individual trader, or any other entity that trades enough volume to impact the market. Market movement is the cumulative effect of many institutions placing trades, and a single institution alone usually cannot move a major market for very long. Traditional institutions place trades based on fundamentals, and they used to be the sole determinant of the market's direction. However, HFT firms now have a significant influence on the day's movement since their trading currently generates most of the day's volume. HFT firms are a special type of institutional firm and their trading is based on statistics and not fundamentals. Traditional institutions determine the direction and target, but mathematicians determine the path that the market takes to get there.



**ioi** Inside-outside-inside—three consecutive bars where the second bar is an outside bar, and the third bar is an inside bar. It is often a breakout mode setup where a trader looks to buy above the inside bar or sell below it.

**ledge** A bull ledge is a small trading range with a bottom created by two or more bars with identical lows; a bear ledge is a small trading range with a top created by two or more bars with identical highs.

**leg** A small trend that breaks a trend line of any size; the term is used only where there are at least two legs on the chart. It is any smaller trend that is part of a larger trend and it can be a pullback (a countertrend move), a swing in a trend or in a sideways market, or a with-trend move in a trend that occurs between any two pullbacks within the trend.

**likely** At least 60 percent certain.

**long** A person who buys a position in a market or the actual position itself.

**lot** The smallest position size that can be traded in a market. It is a share when referring to stocks and a contract when referring to Eminis or other futures.

**lower high** A swing high that is lower than a previous swing high.

**lower low** A swing low that is lower than a previous swing low.

**low 1, 2, 3, or 4** A low 1 is a bar with a low below the prior bar in a bear flag or near the top of a trading range. If there is then a bar with a higher low (it can occur one or several bars later), the next bar in this correction whose low is below the prior bar's low is a low 2. Third and fourth occurrences are a low 3 and 4. A low 3 is a wedge bear flag variant.

**major trend line** Any trend line that contains most of the price action on the screen and is typically drawn using bars that are at least 10 bars apart.

**major trend reversal** A reversal from a bull to a bear trend or from a bear trend to a bull trend. The setup must include a test of the old trend extreme after a break of the trend line.

**meltdown** A sell-off in a bear spike or a tight bear channel without significant pullbacks and that extends further than the fundamentals would dictate.

**melt-up** A rally in a bull spike or a tight bull channel without significant pullbacks and that extends further than the fundamentals would dictate.

**micro** Any traditional pattern can form over one to about five bars and still be valid, although easily overlooked. When it forms, it is a micro version of the pattern. Every micro pattern is a traditional pattern on a smaller time frame chart, and every traditional pattern is a micro pattern on a higher time frame chart.

**micro channel** A very tight channel where most of the bars have their highs and lows touching the trend line and, often, also the trend channel line. It is the most

extreme form of a tight channel, and it has no pullbacks or only one or two small pullbacks.

**micro double bottom** Consecutive or nearly consecutive bars with lows that are near the same price.

**micro double top** Consecutive or nearly consecutive bars with highs that are near the same price.

**micro measuring gap** When the bar before and the bar after a strong trend bar do not overlap, this is a sign of strength and often leads to a measured move. For example, if there is a strong bull trend bar and the low of the bar after it is at or above the high of the bar before it, the midpoint between that low and that high is the micro measuring gap.

**micro trend channel line** A trend channel line drawn across the highs or lows of three to five consecutive bars.

**micro trend line breakout** A trend line on any time frame that is drawn across from two to about 10 bars where most of the bars touch or are close to the trend line, and then one of the bars has a false breakout through the trend line. This false breakout sets up a with-trend entry. If it fails within a bar or two, then there is usually a countertrend trade.

**money stop** A stop based on a fixed dollar amount or number of points, like two points in the Eminis or a dollar in a stock.

**moving average** The charts in this book use a 20-bar exponential moving average, but any moving average can be useful.

**moving average gap bar (gap bar)** A bar that does not touch the moving average. The space between the bar and the moving average is the gap. The first pullback in a strong trend that results in a moving average gap bar is usually followed by a test of the trend's extreme. For example, when there is a strong bull trend and there is a pullback that finally has a bar with a high below the moving average, this is often a buy setup for a test of the high of the trend.

**nesting** Sometimes a pattern has a smaller version of a comparable pattern "nested" within it. For example, it is common for the right shoulder of a head and shoulders top to be either a small head and shoulders top or a double top.

**news** Useless information generated by the media for the sole purpose of selling advertising and making money for the media company. It is unrelated to trading, is impossible to evaluate, and should always be ignored.

**oio** Outside-inside-outside, an outside bar followed by an inside bar, followed by an outside bar.

**oo** Outside-outside, an outside bar followed by a larger outside bar.

**opening reversal** A reversal in the first hour or so of the day.

**outside bar** A bar with a high that is above or at the high of the prior bar and a low that is below the low of the prior bar, or a bar with a low that is below or at the low of the prior bar and a high that is above the high of the prior bar.

**outside down bar** An outside bar with a close below its open.

**outside up bar** An outside bar with a close above its open.

**overshoot** The market surpasses a prior price of significance like a swing point or a trend line.

**pause bar** A bar that does not extend the trend. In a bull trend, a pause bar has a high that is at or below the prior bar, or a small bar with a high that is only a tick or so higher than the previous bar when the previous bar is a strong bull trend bar. It is a type of pullback.

**pip** A tick in the foreign exchange (forex) market. However, some data vendors provide quotes with an extra decimal place, which should be ignored.

**pressing their longs** In a bull trend, bulls add to their longs as in a bull spike and as the market breaks out to a new high, because they expect another leg up to about a measured move.

**pressing their shorts** In a bear trend, bears add to their shorts in a bear spike and as the market breaks out to a new low, because they expect another leg down to about a measured move.

**price action** Any change in price on any chart type or time frame.

**probability** The chance of success. For example, if a trader looks back at the most recent 100 times a certain setup led to a trade and finds that it led to a profitable trade 60 times, then that would indicate that the setup has about a 60 percent probability of success. There are many variables that can never be fully tested, so probabilities are only approximations and at times can be very misleading.

**probably** At least 60 percent certain.

**pullback** A temporary pause or countertrend move that is part of a trend, swing, or leg and does not retrace beyond the start of the trend, swing, or leg. It is a small trading range where traders expect the trend to resume soon. For example, a bear pullback is a sideways to upward move in a bear trend, swing, or leg that will be followed by at least a test of the prior low. It can be as small as a one-tick move above the high of the prior bar or it can even be a pause, like an inside bar.

**pullback bar** A bar that reverses the prior bar by at least one tick. In an uptrend, it is a bar with a low below that of the prior bar.

**reasonable** A setup with a favorable trader's equation.

**reversal** A change to an opposite type of behavior. Most technicians use the term to mean a change from a bull trend to a bear trend or from a bear trend to a bull

trend. However, trading range behavior is opposite to trending behavior, so when a trend becomes a trading range, this is also a reversal. When a trading range becomes a trend, it is a reversal but is usually called a breakout.

**reversal bar** A trend bar in the opposite direction of the trend. When a bear leg is reversing up, a bull reversal bar is a bull trend bar, and the classic description includes a tail at the bottom and a close above the open and near the top. A bear reversal bar is a bear trend bar in a bull leg, and the traditional description includes a tail at the top and a close below the open and near the bottom.

**reward** The number of ticks that a trader expects to make from a trade. For example, if the trader exits with a limit order at a profit target, it is the number of ticks between the entry price and the profit target.

**risk** The number of ticks from a trader's entry price to a protective stop. It is the minimum that the trader will lose if a trade goes against him (slippage and other factors can make the actual risk greater than the theoretical risk).

**risk off** When traders think that the stock market will fall, they become risk averse, sell out of volatile stocks and currencies, and transition into safe-haven investments, like Johnson & Johnson (JNJ), Altria Group (MO), Procter & Gamble (PG), the U.S. dollar, and the Swiss franc.

**risk on** When traders think that the stock market is strong, they are willing to take more risks and invest in stocks that tend to rise faster than the overall market, and invest in more volatile currencies, like the Australian dollar or the Swedish krona.

**risky** When the trader's equation is unclear or barely favorable for a trade. It can also mean that the probability of success for a trade is 50 percent or less, regardless of the risk and potential reward.

**scalp** A trade that is exited with a small profit, usually before there are any pull-backs. In the Emini, when the average range is about 10 to 15 points, a scalp trade is usually any trade where the goal is less than four points. For the SPY or stocks, it might be 10 to 30 cents. For more expensive stocks, it can be \$1 to \$2. Since the profit is often smaller than the risk, a trader has to win at least 70 percent of the time, which is an unrealistic goal for most traders. Traders should take trades only where the potential reward is at least as great as the risk unless they are extremely skilled.

**scalper** A trader who primarily scalps for small profits, usually using a tight stop.

**scalper's profit** A typical amount of profit that a scalper would be targeting.

**scratch** A trade that is close to breakeven with either a small profit or a loss.

**second entry** The second time within a few bars of the first entry where there is an entry bar based on the same logic as the first entry. For example, if a



breakout above a wedge bull flag fails and pulls back to a double bottom bull flag, this pullback sets up a second buy signal for the wedge bull flag.

**second moving average gap bar setup** If there is a first moving average gap bar and a reversal toward the moving average does not reach the moving average, and instead the move away from the moving average continues, it is the next reversal in the direction of the moving average.

**second signal** The second time within a few bars of the first signal where there is a setup based on the same logic as the first signal.

**selling pressure** Strong bears are asserting themselves and their selling is creating bear trend bars, bars with tails at the tops, and two-bar bear reversals. The effect is cumulative and usually is eventually followed by lower prices.

**setup** A pattern of one or more bars used by traders as the basis to place entry orders. If an entry order is filled, the last bar of the setup becomes the signal bar. Most setups are just a single bar.

**shaved body** A candle with no tail at one or both ends. A shaved top has no tail at the top and a shaved bottom has no tail at the bottom.

**short** As a verb, to sell a stock or futures contract to initiate a new position (not to exit a prior purchase). As a noun, a person who sells something short, or the actual position itself.

**shrinking stairs** A stairs pattern where the most recent breakout is smaller than the previous one. It is a series of three or more trending highs in a bull trend or lows in a bear trend where each breakout to a new extreme is by fewer ticks than the prior breakout, indicating waning momentum. It can be a three-push pattern, but it does not have to resemble a wedge and can be any series of broad swings in a trend.

**signal bar** The bar immediately before the bar in which an entry order is filled (the entry bar). It is the final bar of a setup.

**smaller time frame (STF)** A chart covering the same amount of time as the current chart, but having more bars. For example, compared to the day session 5 minute Emini chart on an average day, examples of smaller time frame charts include a 1 minute chart, a tick chart with 500 ticks per bar, and a volume chart with 1,000 contracts per bar (each of these charts usually has more than 200 bars on an average day, compared to the 81 bars on the 5 minute chart).

**smart traders** Consistently profitable traders who are usually trading large positions and are generally on the right side of the market.

**spike and channel** A breakout into a trend in which the follow-through is in the form of a channel where the momentum is less and there is two-sided trading taking place.