Trade adjustment basics

To me, successful trading and long term profitability with options require skillful trade adjustment techniques. Adjustment decisions are part logic, part art. These notes address the basic logical aspects of the decision process. The *art* of adjustment is a deeper topic that depends on the individual personality and experience of the trader and can be discussed in a subsequent presentation. These notes assume a basic knowledge of options and familiarity with typical risk graphs and option Greeks.

Why adjust? →Objectives

Markets rarely move in orderly straight lines or to an easily predictable target price. Because the motion of markets is most often erratic, traders that are flexible and responsive to how the market acts are the ones who tend to show long term stable profitability. "Adjustment thinking" is therefore really a means of adapting to and changing with market conditions.

When it comes to the core objectives of this approach to trading, adjustments to option positions are designed to

1. **Lock in gains or lower overall position cost, and**
2. **Reduce or shift risk while improving position leverage**

Each of these goals can be achieved individually or in combination via a trade adjustment.

When a trade is going your way, you will eventually be faced with a decision point where you can lock in some of those gains. If you buy a call and it increases in value, you are initially faced with the happy dilemma of letting the position ride or closing it and pocketing the profit. My recommendation, and the premise of the adjustment philosophy, is to capture some of those gains while preserving some further potential opportunity.

While the details of when and how to adjust will be discussed below, here's a simple example of how adjustment thinking works:

> *Buy 50 strike call for $2. The next day the call value has increased to $3. Instead of closing for the $1 profit, sell the 55 strike call for $1 creating a long vertical 50/55 call spread for a net debit of $1.*

With this adjustment, you've lowered the overall position cost (Objective #1) and reduced risk (Objective #2).

Of course not every trade will show an immediate profit. Adjustments cannot turn losers into winners, but, by pursuing the two key objectives, you can often set up the dynamics that turn these losing trades around. Thus, when a trade is not going your way, rather than close to take the loss, you can decide if making some kind of adjustment will direct you toward the key objectives.

Example:

> *Originally long a 50 strike call for $2. The next day the call value declines to $1. Instead of taking the loss by closing the position, sell two 55 strike calls for $0.50 each leaving you with a net ratio trade of +1 50 call/-2 55 calls for a net debit of $1.*

With this adjustment you've lowered the overall position cost (Objective #1) while shifting and aligning the profit zone of the position with the market (Objective #2). What I mean by "aligning the profit zone" is simply that the adjusted position will recover value more quickly if the underlying price returns to your original bullish perspective. I'll defer discussion of the added risk that the extra short 55 call adds for now, but logically try to focus on how the value of the 50 strike will recover faster if the cost of the trade is $1 versus the original $2 debit.

Summary

The goal of adjustment thinking is ultimately to find ways to improve your long term trading success. The key benefit of making adjustments – as opposed to simply closing winning or losing trades – is to continually fine tune your position to extract some further potential reward. Look for opportunities to lock in gains and/or shift your profit zone more favorably.

What are adjustment trades? →Fundamental position types

Individual options are like building blocks. They can be combined in countless ways with nearly infinite reward and risk profiles. But when it comes right down to basics, there are four fundamental types of trade that need to be mastered for making adjustments to just about any position:

1. Verticals
2. Butterflies
3. Ratios
4. Boxes

Each of these trade types can be used to quickly modify and morph any exiting trade to meet the adjustment objectives. To advance your adjustment thinking ability, you need to develop an ease and comfort level with converting into and out of these four types of position. It's likely that these trade types are already familiar to you, but here is a quick review of how the trades are constructed with a particular focus on how they operate for adjustment purposes.

Vertical spreads

A vertical spread consists of equal units of long and short options at different strikes. If the long strike is lower than the short strike, it is considered a bullish vertical. If the long strike is higher than the short strike, it is a bearish vertical. *[NOTE: I don't distinguish between calls and puts since they can be used interchangeably via synthetic relationships. Though for trading beginners, it may be helpful to think in terms of all calls to visualize the trade.]*

The key aspects of the vertical trade are 1) **directionality** (the trade maintains a correlation and sensitivity to price movement) and 2**) regional leverage**. By "regional" leverage, I'm referring to the powerful increase in reward to risk that the vertical has in the localized price zone. Strictly speaking, a plain long call, for example, has "infinite" reward to risk potential. But realistically, we have to look at each trading situation with a sense of the relative probabilities of price movement. By reducing overall cost and shifting the price point at which the trade becomes profitable, the vertical position radically improves the localized reward/risk potential.

Butterfly spreads

A butterfly consists of a long vertical and short vertical spread with the long strikes outside (above and below) the short strikes. Typical "fly" has two short units at the same strike. Example: +1 50C/-2 55C/+1 60C. Variations of the fly are typically referred to as Condors where the short strikes are not the same. Example: +1 50C/-1 55C/-1 60C/+1 65C. The key aspects of the butterfly are 1)

fixed risk and 2) **neutrality** over a price zone (in Greek terminology, "theta positive"). These trades can be used as opening positions or as adjustments. Flys help ratchet the profit zone to align the "fattest" reward potential with where the market is currently trading. Since adjustment thinking is all about responding to the current market, the fly trade is an ideal tool for floating a position backwards and forwards to meet changes in price and time. I'll demonstrate below how the fly is frequently the most useful tool for managing a trade.

Ratio spreads

Ratio spreads are simply verticals with at least one additional short unit. The most common form is a one by two spread such as +1 50C/-2 55C. **Ratio trades are the ultimate defense against a losing position**. The key aspects of ratio spreads are 1) **cost reduction** and 2) **risk displacement**. As the underlying price moves against your current position, you need to look for opportunities that shed some of the cost of holding on to the trade. Selling out of the money options against a core position is a way to minimize some of that cost.

Box spreads

A box is a long call spread and a long put spread at the same strikes. Unless you are a floor trader the only time you'd ever be inclined to trade a box is when you have originally traded one or the other verticals (or even more rarely, one of the respective strangles) and currently have a profit.

The box allows you to lock in profit and then treat the separate pieces as new verticals to react to at the next step. I like to think of the box as a way to get some breathing space in a trade when I'm not really confident of what will happen next. It is also akin to "splitting pairs" in blackjack for those familiar with card strategy.

You can of course simply close a winning trade for a profit and skip the extra commissions. But it's worth occasionally exploring the box as a way to grow or evolve a winning position. It makes sense to look at doing a box trade if you are in a volatile entity that seems to be doing what assets typically do: meander in zigzag fashion back and forth. So for example, say you are in a profitable 50/55 call spread. You have the choice to sell it outright or do the box by buying the 55/50 put spread. If you buy the box, you have a guaranteed lock on the difference between the 5-point spread and what you paid for the net box position. If you do nothing after this point, you will just collect the difference at expiration. But if the underlying asset price moves around you now have a couple separate bases to work additional trades from. Let's say that after you enter the box, the underlying drops back to the level where you bought the original call spread. You can now sell that put spread for a bit of a profit and you are back in your original position for a reduced cost. If the asset goes back up, you do the box

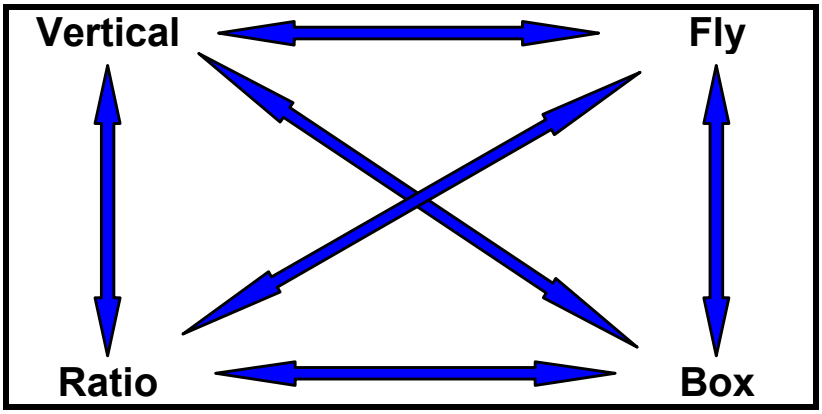
again - all the while chipping down that cost of original entry, responding to the market, and setting yourself up for additional moves.

[One caveat: make sure you understand boxes thoroughly which means, for instance, looking out for dividend situations where you might unexpectedly get your short positions exercised as well as being prepared for pin risk at expiration.]

Practicing "option gymnastics"

To really get comfortable and hone your trading skills, it's a good exercise to visualize how to turn any trade into one of the four fundamental trade types – including converting the four trades into any of the others.

Following the adjacent diagram, you should begin to attune your trading sensibilities to be able to visualize how any of the trade types can become one of the others. By adding or subtracting the pieces, a position can quickly be adapted to suit changing conditions.



As an exercise, ignore prices and concentrate on what combinations you'd need to execute to convert any fundamental trade into one of the others.
Example: Morphing a vertical position

> *Assume a starting position that is a vertical call spread where you are long one 50 call and short one 55 call.*
>
> *To create a ratio: sell one 55 call to make a net position of +1 50C/-2 55C*
>
> *To create a butterfly: sell one 55 call and buy one 60 call to make a net position of +1 50C/-2 55C/+1 60C*
>
> *To create a box: sell one 50 put and buy one 55 put to make a net position of +1 50C/-1 50 P/-1 55C/+1 55P*

I'd suggest you take some time to work through all the other permutations in the diagram to develop greater dexterity with converting each trade type.

A note on time

While adjustment thinking is most concerned with adapting to price changes, the other key factor impacting a position is, of course, time. If the underlying asset seems to come to a standstill after entering your option trade, you have to be prepared to adapt to that fact. Time can erode a long premium position (i.e. theta negative) sometimes in just as devastating a fashion as undesired price movement. In a situation where you are starting to experience unacceptable decay in your premium, you can still select from the fundamental trade types to adapt your position. You'' seek out ways to make your position theta positive and that will lead you to either the butterfly or ratio alternatives.

Summary

Trade adjustment basics require you to develop a facility with turning one type of trade into another that is more suited to current market conditions and prices. The four fundamental positions described here – vertical, butterfly, ratio and box – are the most useful tools for building the necessary skills.

How to adjust? →Key adjustment methods and techniques

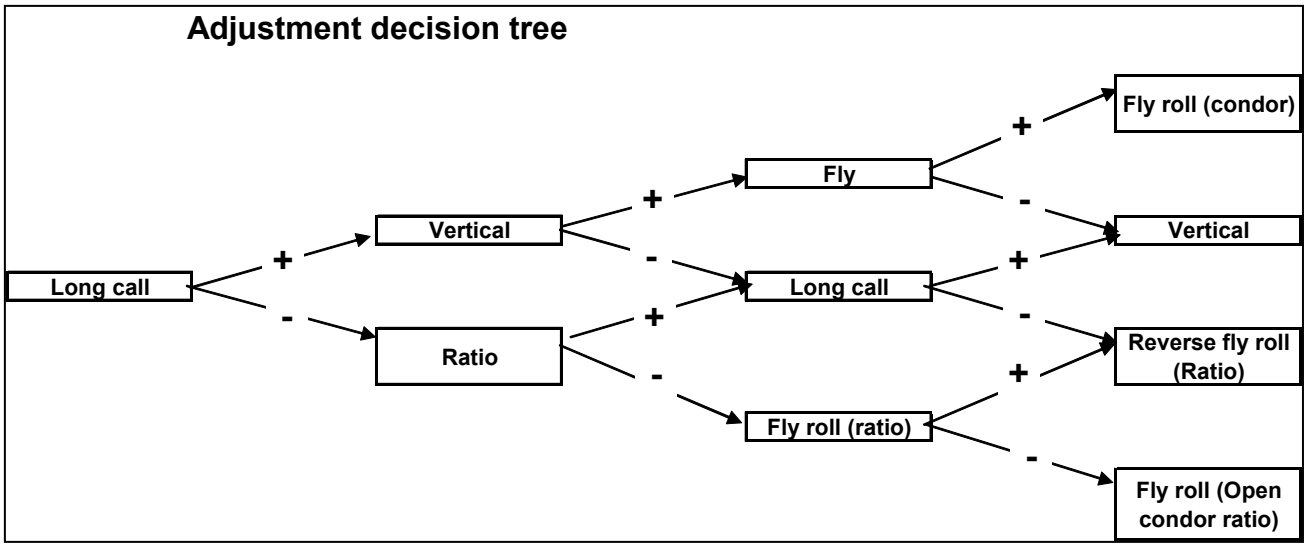
If you've mastered – or at least increased your comfort level with - the mental gymnastics of converting fundamental trade types, you are ready to apply these skills to adjustment practice. Adjustment thinking is a (mostly) logical process that initially uses the foundational trades in sequence. The decision tree below shows the process from an original long call position but the tree applies to any type of trade along the decision paths as an underlying vehicle works its zigzag price motion.

As you advance your trading abilities, you will likely veer from the sequence but learning has to start somewhere and with this decision sequence you can, hopefully, begin to see trading like a chess game where you prepare each move with an eye toward two, three or more countermoves and adaptations into the future.

From any starting point, as the underlying price moves up ("+" on the decision tree) or down ("-"), you will look to morph your position by adding or subtracting the appropriate pieces to create the subsequent position in the sequence.

Working the decision tree

The primary types of adjustments you'll use are tied the movement of prices. While option prices change for a variety of reasons, the main concern here is with the movement of the underlying asset. Graphically you can see the process for selecting adjustments in the following decision tree.

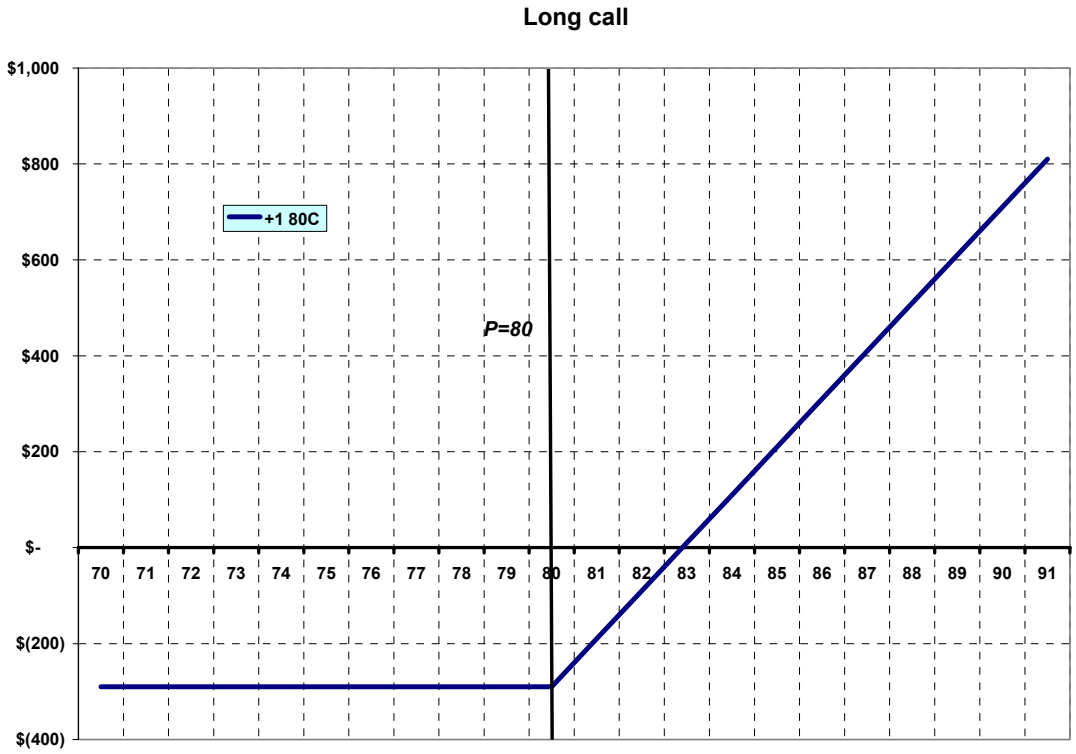


The following examples will help illustrate how each adjustment happens and some of the rationale behind each decision. While working through the examples pay particular attention to how each adjustment alters the cost basis and shifts the prospects for profitability. I've focused on using all calls and an initially bullish trade to present the concepts in as clear a manner as possible but, intuitively, the same type of decisions can be made with a bearish or neutral initial stance.

At each stage, the previous positions are shown to help compare and understand the give and take aspects of each adjustment. As extremes, I present the kinds of decisions to be made when the underlying asset moves in one direction or the other. Once you can grasp these scenarios, you should devise a number of shifting, forward and backward price movements to further acclimate yourself to adjustment trading.

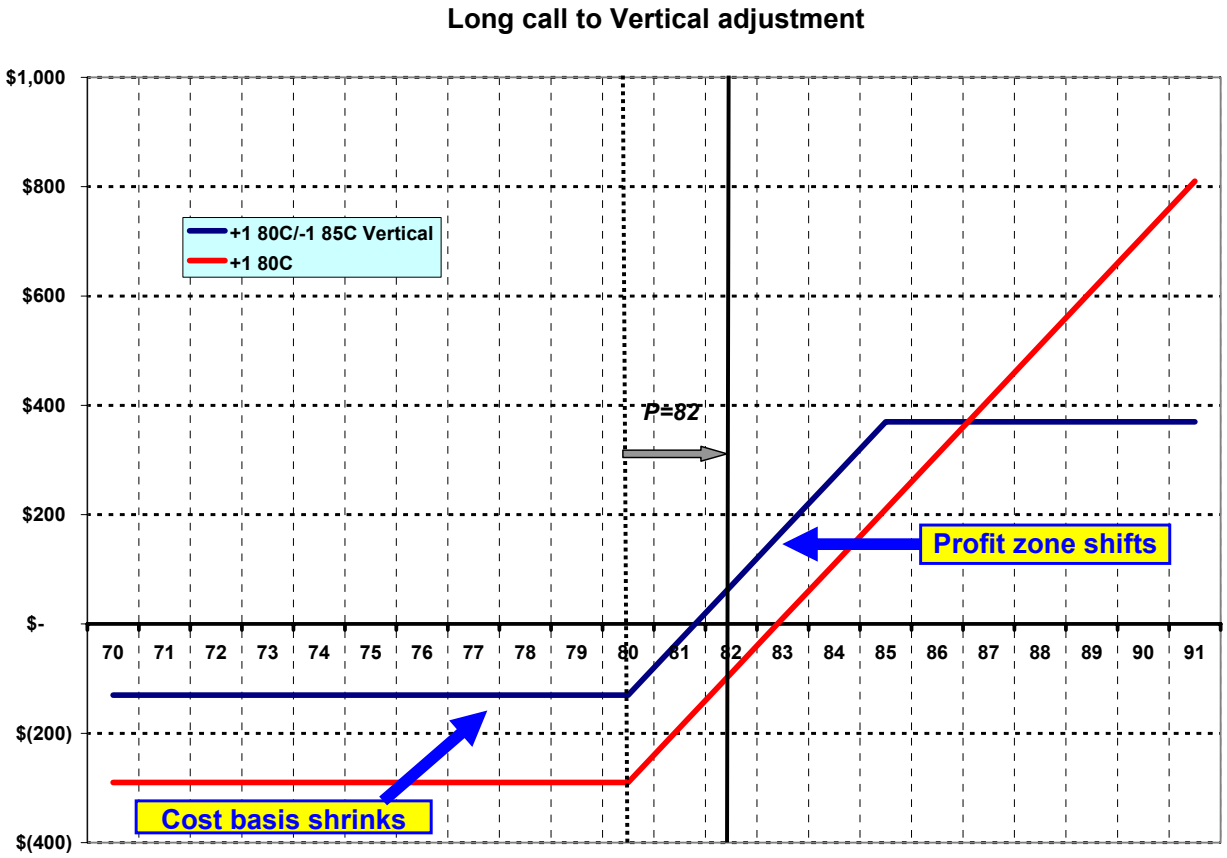
Example 1: Uptrend

30 days until expiration. Stock at $80. [30% IV assumed throughout example.]
Buy one 80 call for $2.90 debit.



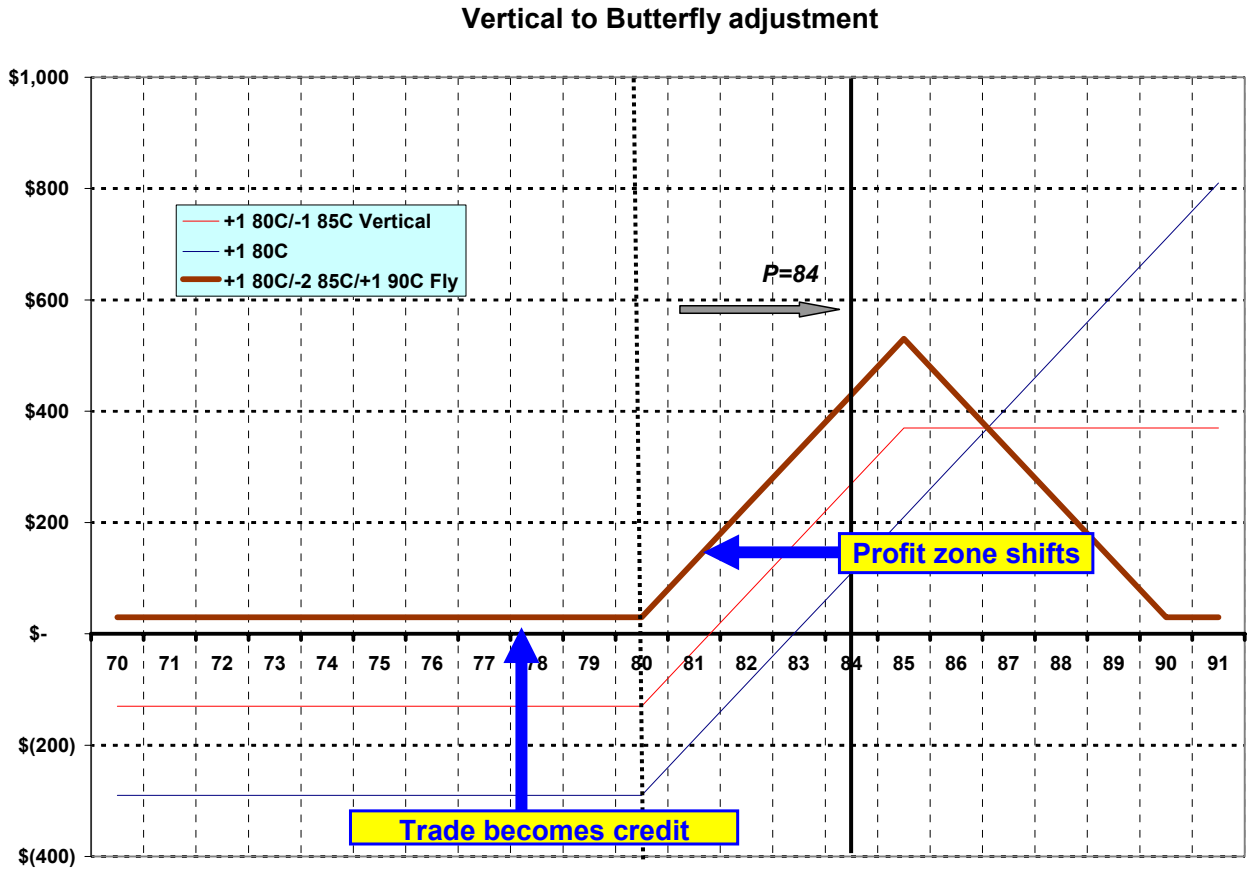
You open a trade with a bullish bias but absolutely no idea where it will go. So you take a shot with a fixed risk purchase of a single vanilla call.

28 days until expiration. Stock price rises to $82.
Sell one 85 call for $1.60 to create Vertical for net $1.30 debit



With the vertical you dramatically lower cost and thereby increase the leverage of the trade locally. You've given up profits outside near-term probable range in exchange for landing your trade squarely in a profit zone based on current price.

26 days until expiration. Stock price rises to $84.
Sell 85 call for $2.40, buy 90 call for$0.80 to create Butterfly for net $0.30 credit

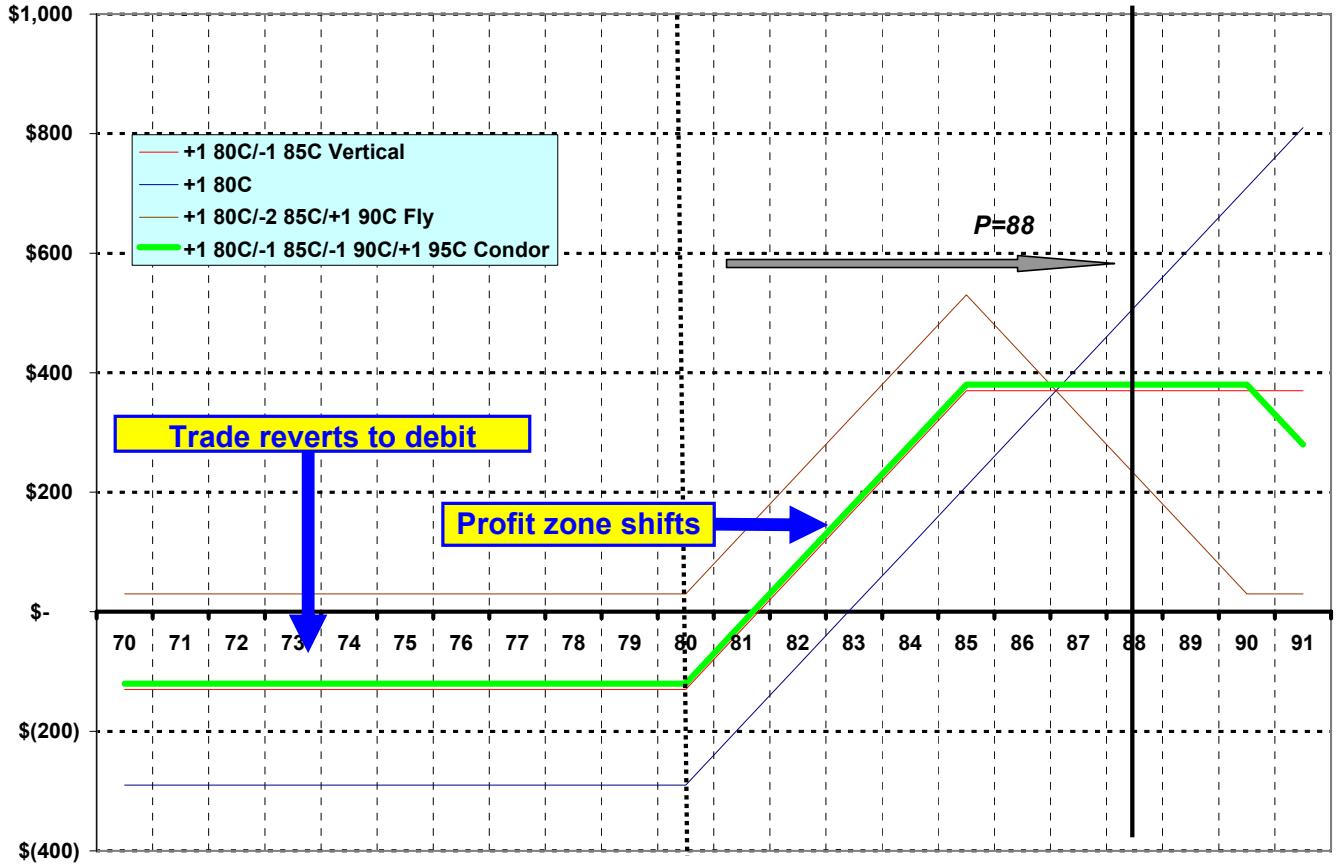


The underlying stock has moved further into your profit zone, enough that you are able to create a locked in credit with a zero risk trade. Further, the potential profit zone has fattened if the market price hovers around its current level.

Because you are in a locked profit at this point, it is often prudent to simply hold such a position with minimal or no further adjustments. As the market changes, though, you may seek to alter the trade to capture new opportunity.

22 days until expiration. Stock price rises to $88.
Buy 85 call for $4.50, sell two 90 calls for $1.80 each, buy one95 call for $0.60 to create condor for net $1.20 debit

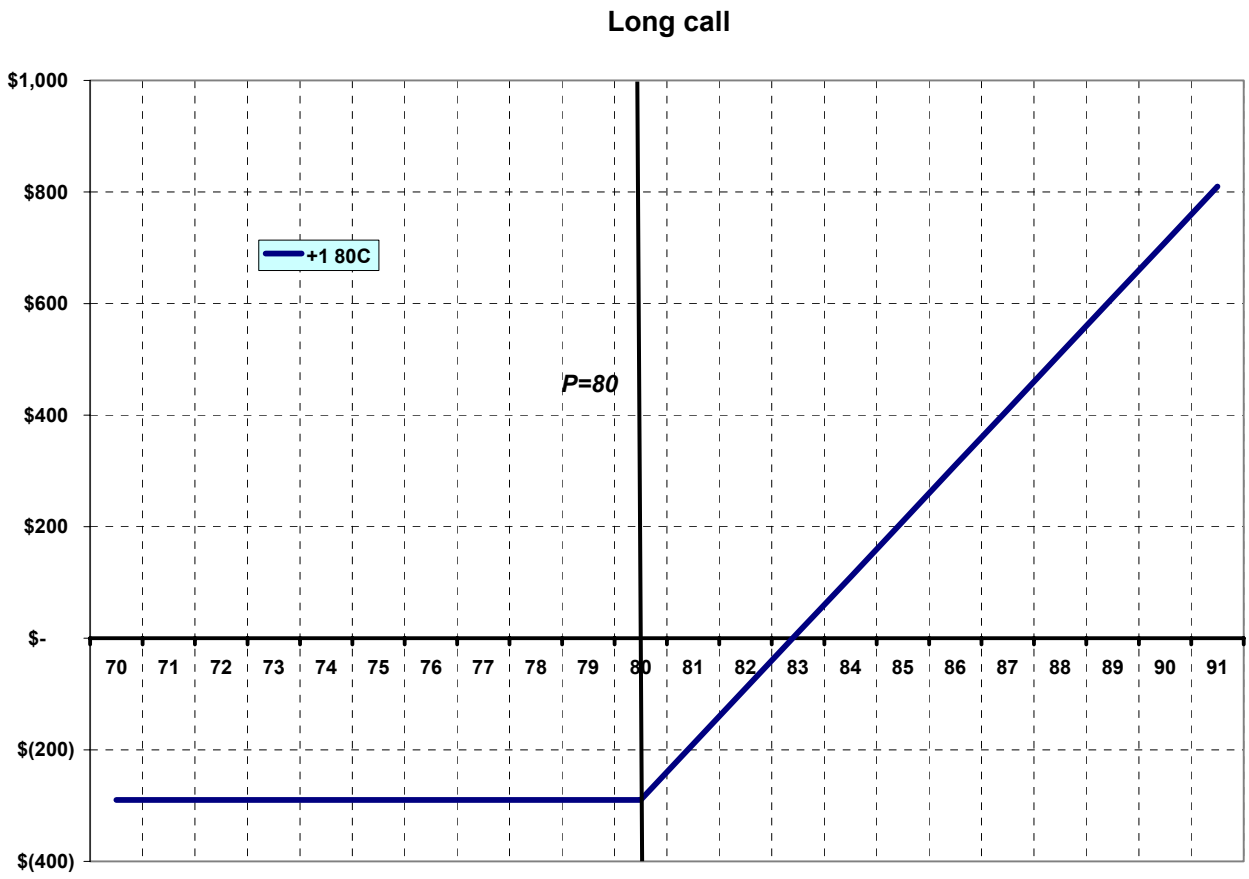
Butterfly to Condor adjustment



The underlying continues to power ahead and threatens to move out of your fly's profit zone. So you elect to add some risk in exchange for stretching the profit potential around current market price. For the first time, you can see how adjustments can begin to be troublesome as the original plain call now looks a lot more profitable. The thing to remember is that markets only occasionally move in one direction relentlessly. Adjustment thinking is designed to capture the zigzag motion of the market as it most often behaves.

Next, let's look at adjustments needed when the market winds blow opposite your initial position and then continue with unstoppable gale force in your face

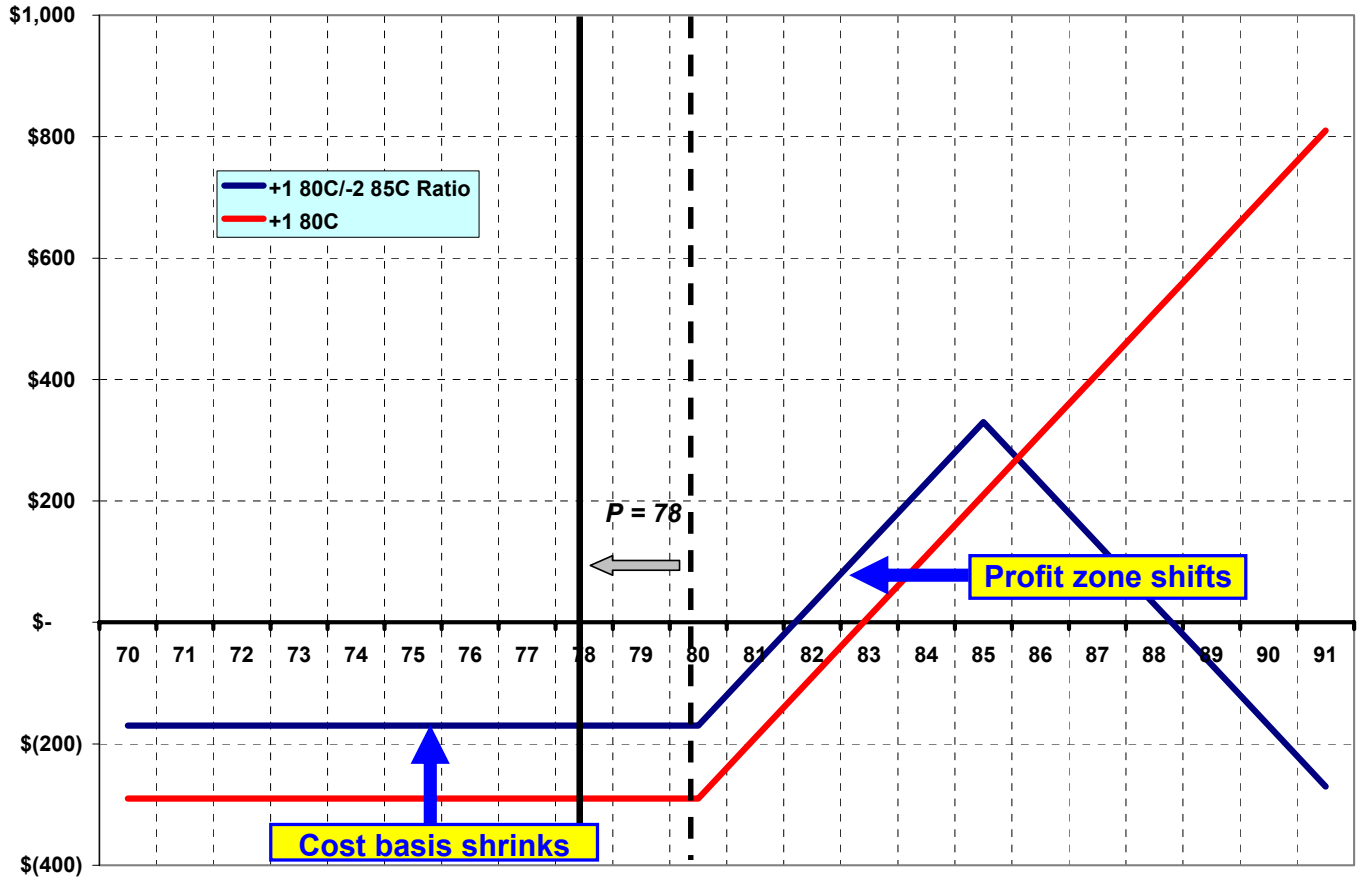
Example 2: Down trend
30 days until expiration. Stock at $80. [30% IV assumed throughout example.]
Buy one 80 call for $2.90 debit.



Start with the same initial trade as in example #1.

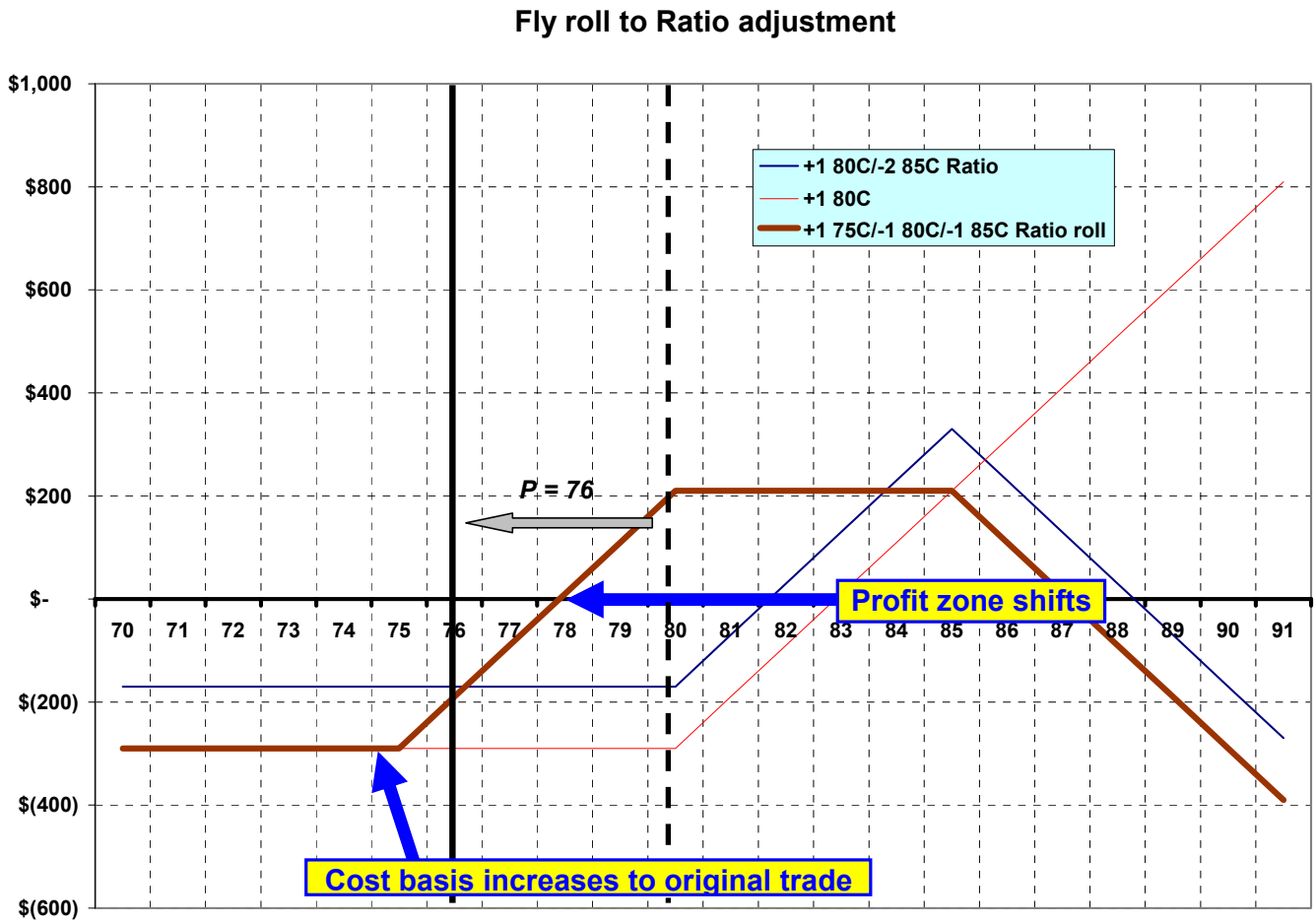
28 days until expiration. Stock price falls to $78.
Sell two 85 calls for $0.60 each to create Ratio for net $1.70 debit

Long call to Ratio adjustment



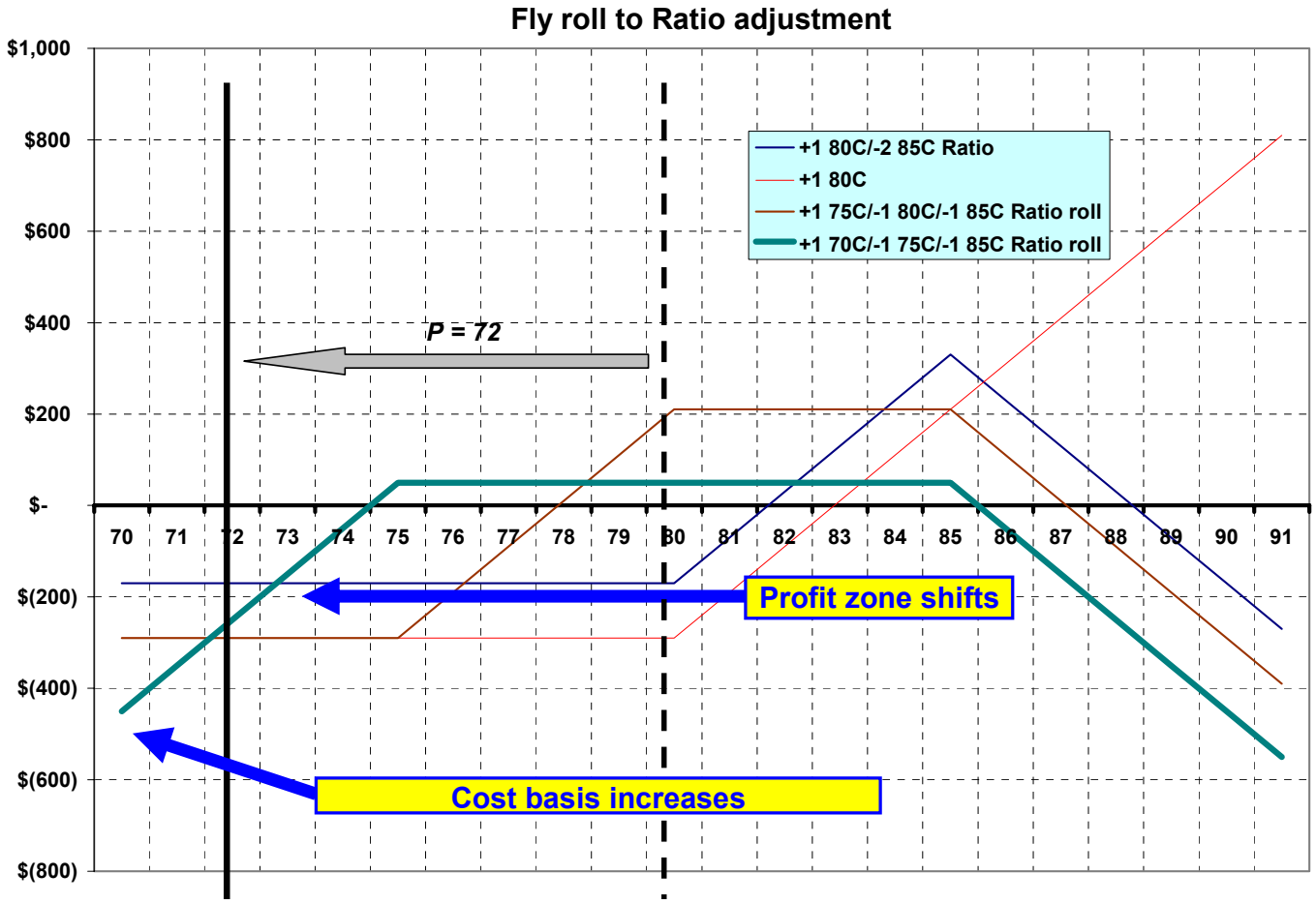
Because the market has not cooperated with the hoped for initial bullish position, you have to scramble to shift your risk. Creating the ratio spread helps by reducing the overall cost basis of the trade while yanking the profit zone back in the direction of the declining stock price. That extra short unit (the second 85 call) exposes you to upside risk, but the thinking here is that if this situation is to turn around, the ratio will take advantage of the increase sooner than the plain vanilla original long call position would have. You actually want the underlying to rally back toward your short strike – but of course not too fast!

26 days until expiration. Stock price declines to $76.
Buy one 75 call at $3.10, sell two 80 calls at $1.10 each, buy one 85 call at $0.30 (i.e. add a butterfly) to create an "open ratio condor" net position of +1 75C/-1 80C/-1 85C for a net $2.90 debit.



As luck would have it, the stock continues to be uncooperative with your hoped for profit plans. Time to really begin morphing this trade to comply with what the market is telling you. So here, you seek to ratchet down the profit zone defensively, yet, as aggressively as possible. Adding the fly costs a little but as you should see, you are back at the original cost basis but with a trade that is better positioned to capture any return to the upside. That short 85 call (which is why I refer to the position as an "open" condor) is still a risk but it is seriously diminished based on the current price of the underlying asset.

22 days until expiration. Stock price falls to $72.
Buy 70 call for $3.40, sell two 75 calls for $1.00 each, buy one 80 call for $0.20 to create open ratio condor for net $4.50 debit



So things have deteriorated on this trade as the underlying stock has decided to flush completely down the drain. At this point, it's prudent to consider closing rather than adjusting but if you are looking to salvage some slim potential, you can add one more Fly to ratchet the trade down one more time.

A note on box trades

In the preceding examples, I've tried to demonstrate the mechanics and rationale behind basic adjustment decisions. I've purposefully tried to show how adjustments succeed and how they run into trouble by simulating two extremes of market behavior: continual bullish and bearish moves. There are uncountable ways that a market can perform and, thus, nearly infinite adjustment responses. Left out of the discussion has been the use of the fourth fundamental trade, the box spread. As stated above, the box is a special adjustment tool that is best used to lock in profit when you are uncertain about future direction. Of course in example one, the third stage adjustment to the butterfly from the vertical also involves an uncertainty about future market direction. A box trade could have justifiably been used instead of the fly. That's part of what makes trading successfully such a challenge and one of the reasons why I view trading as a life-long learning process.

Summary

Trade adjustments can be thought of as following a decision tree process. As price and time change, the market, itself, dictates the need to shift your position. The basic sequence of adjustments seeks to continually shift and modify a position in line with profit potential and cost reduction principles. The mechanics of the trade sequence were outlined using two extreme examples and showed how adjustment thinking seeks to adapt the trade based on what the market offers.

When to adjust? ⟶Defining your decision points

Now that I've walked you through some basic (and hopefully clear) set of mechanical moves to make adjustments to both winning and losing positions, we get to the hard part: deciding exactly **when and where** to implement the adjustments.

The honest answer is that **no one knows for sure when it is the best time to adjust a trade**. If it were truly a mechanical and purely scientific enterprise, a computer could be programmed with all the necessary rules, logic and decision matrices and it would become an automatic money machine.

In a nutshell, there is really only one reason to adjust a trade and that is because the value of your position changes. Of course this begs the question, "How much does the value of my position have to change to compel me to do something about it?" I answer this way: **When the value of a position changes *significantly* by much more or much less than random expectation, I adjust the trade.**

How do you go about quantifying the "much more" or "much less" amount? There are, again, no hard and fast rules for these kinds of metrics but, in principal, what follows is the method I use. As you develop your own abilities and style, you'll find some unique path toward determining your own decision points.

Trading the gaps

For even a casual observer, financial markets display a bi-polar character. Most of the time, markets tend to meander aimlessly and seem to do almost nothing. These periods of relative calm are then suddenly hit with sporadic bursts of chaos. Whether you watch the markets only occasionally on a month to month basis or follow each squiggle and bounce second by second, you'll see the same behavioral phenomena: stagnation followed by extreme price spikes.

Using more statistical language to describe this behavior, periods of low volatility are broken by occasional – but by no means rare – moments of unstable and high volatility. The frequency and magnitude of discontinuous outlier price moves (i.e. gaps of greater than two or three standard deviations) that markets exhibit defy orthodox expectations for normal statistical behavior. In the book The (Mis)Behavior of Markets, Benoit Mandelbrot discusses how the many big plus and minus daily percentage changes in the Dow defy the assumptions randomness. In one case – the crash of 1987 – Mandelbrot points out that the one day 508 point (29%) decline in the Dow represented a 22σ move (a 1 in 10^{50} probable event). In other words, this mind-boggling move should not have occurred yet given the known age of the universe.

Though an extreme example, the '87 crash is not an isolated event. No matter how you partition or scale the markets by a time frame, these "fat-tail" events (so-called because of the larger than expected size and frequencies these events occupy on bell curve-type graphs) happen more often than normal distribution calculations would predict. In fact, these outlier gaps seem to appear as often as once in every 100 or 200 units of time – again the time frame could be large such as months or even years – or very small such as minutes or seconds.

This uncertainty about the behavior of prices is a large part of what makes the options market such a fertile speculative realm in the first place. For our purposes, we can use this information for determining an answer to the central question of "When is it time to make an adjustment?"

Using IV to set adjustment trigger points

For any option and, by extension, any combination of options the price paid (or sold) can be expressed as a volatility number. In the previous examples which showed the mechanics of the adjustment decision tree, the assumed implied volatility (IV) was 30%. However, working backwards, you could have instead used price information to determine the IV. With an option pricing calculator, you can solve for IV by having only the prices of the option, the underlying asset and other contract parameters. Once you have determined the IV of your position, you now have a tool for determining when a gap occurs that triggers an adjustment response.

Trigger points for me are defined as moments when either price or time changes "tell" me that actual volatility is very different than what I have locked myself into with my initial trade. I use basic calculations of standard deviations (**σ**) to establish normal market "noise" that I can then essentially ignore versus "clarion calls" that signal gap events or significant changes in market volatility.

To calculate standard deviation and translate this into a price trigger threshold, the formula is:

$$1\sigma = (P * V)/(t)^{.5}$$

Where

P = Price of the underlying asset at your trade entry (or last decision point)
V = the imputed volatility of your position
t = Units of time expressed as the fraction (or multiple) of trading days in a year

By convention and - as you'll see - out of practicality, the number of trading days in a year are assumed to be 252.

Example: What is a one day, single standard deviation price move for a stock trading at $80 with an IV of 30%?

$$1\sigma = (80 * .30)/(252)^{\wedge.5} = 1.51$$

Thus, this +/-1.51 represents a single standard deviation move in one day on our hypothetical stock.

Once you know **σ**, you can define your "noise" zone by referring to a probability chart for a normal distribution*. This is an approximate and rudimentary method but is a reasonable practice for bracketing out any price movements that you are willing to ignore. As a start, let's assume that market noise involves any kind of price move less than 1.5**σ** which would include 86.6%of expected price behavior. Following the above example, 1.5**σ** equals $2.27 so we are, by fiat, deciding that any one day price move less than +/- 2.27 will be ignored. But if price somehow goes beyond this level, we are determining that the move is significant enough to justify making an adjustment to the position.

With this number you can now go back and plug in a "what if" scenario into the option pricing calculator to pre-determine what price you'll need to make an adjustment at or simply just wait for the price threshold to be reached in the market place and then execute your adjustment trade. So, for instance, if tomorrow the $80 stock you entered an 80 call purchase with today, trades at $82.30, you know you should make an adjustment to, for instance, sell the 85 call to convert into a vertical spread.

Time & volatility: Additional decision drivers

If you look back at the formula for determining standard deviation you'll likely wonder about what the correct time frame (hours, days, weeks, etc.) should be for decisions. You will also likely be curious about the use of "trading" days versus calendar days for the calculation.

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* For those needing a refresher on probability, a single standard deviation represents 68% of the likely outcomes. As you add **σ** you increase the "area under the bell curve" or probability that an event will occur. This table will help you establish the number of standard deviations and the corresponding probabilities:

σ	Probability
1.0	68.3%
1.5	86.6%
2.0	95.4%
2.5	98.8%
3.0	99.7%

To address the trading versus calendar issue first, the practical reason for using trading days is simply that you can do nothing about your positions when the market is closed. As I noted, this is a convention, but to me it is a very real and constraining aspect of trading. Using trading days or fractions thereof are a discipline and habit I've adopted.

As to which time frame to focus on, there are two key considerations. One is the nature of your position; the second is the reality of how closely you can monitor the market. If you are a retail trader, it is unlikely that you can be glued to a trading screen full-time. It is therefore impractical to set a time frame of less than a day. This will obviously mean that you might miss some interesting and tradable intraday movements. But with technology and the flexible means of entering complex and contingent trade orders, it is feasible to create an automated alert system for signaling that your price threshold has been hit as well as confirming that an order has been executed.

The nature of the trade is the most significant factor in setting your time frame and adjustment threshold. First of all, an implied assumption throughout this presentation has been that positions are created using front month options series. With a short time horizon, a focus on daily decision points is warranted. If you trade longer term positions, you'll likely want to scale out the time frame to several day intervals or perhaps a week at a time. [Even with a long term position, though, I would not recommend using any time interval longer than one week for calculating your trigger values.]

Next, you need to plan your adjustment strategy based on whether you are long or short premium (i.e. positive or negative gamma). If you are **long premium**, you need to continually chip away at your cost basis to pay for the trade. Therefore you'll likely want your time frame to be short – a day, an hour or even less – to ensure that you capture as much movement (volatility) as possible.

An interesting consequence of this is the impact of market open on a position. Often, especially on the first trading day of the week, the market will gap. When I'm in a long premium position, I will look at that open and adjust based on tighter parameters. For instance, if normally I'm focused on a daily trigger, I might look at the one hour threshold during a session open. With our stock example, that would mean that the 1.5σ is actually +/-$0.59 [(80*.3)/ (6.5 hours*252 days)$^{\wedge.5}$] so instead of waiting for a +/-$2.27 daily move, if that $0.59 target gets surpassed near the opening I'm looking to make a move.

If you are **short premium**, you will want to wait as long as possible before making an adjustment to allow your theta decay to creep in. In that case you may set your time frame to one week and/or move your daily decision point out to two or even two and half σ.

Volatility = time (and vice versa)

One final consideration is the impact of time on adjustment strategy. It has become a cliché to speak of options as a "wasting asset." But let's think through and beyond the truism. One of the first learning hurdles a trader has to overcome, grasp and instill is **the nature of extrinsic premium** or the value of an option beyond its in-the-money price. If ABCDE stock is trading at $52.00 and the 50 strike call is trading at $5.00, that option has $3.00 of extrinsic premium [5- (52-50) = 3]. I've purposefully left out how far this option is from expiration to get you to think about how extrinsic value can be conceived either as a volatility or a time function. If you were told that expiration was just one day away, what would your sense of implied volatility be? High or low? Alternatively if expiration is one year away, what would now happen to your sense of volatility?

When you begin to see how intrinsic premium works, you'll sense the relative instability and risk that it poses. In option Greek-speak this is what concern about Vega risk is all about. In terms of adjustment thinking, you have one more piece of the puzzle that you'll need to consider. Either time erosion or volatility changes can (and will) impact any position you hold. You need to have a corresponding set of decision criteria for when your position changes irrespective of the movement of underlying asset price. The standard deviation calculation can again help with this issue.

We've seen how to use a multiple of standard deviations to set up a target threshold for decision making. We can now return that value to an option model to perform various what-if type queries with an eye toward time and volatility changes.

Under the price change criteria we've used the example that requires an adjustment to be made if the underlying moves +/-$2.27 in one day. But what if the underlying does not move that much but somehow the equivalent impact of that change is reflected in the prices of the options? Again let's assume that you have purchased the 80 call with the stock at 80. Since you are focused on what happens if the underlying price moves that $2.27 in a day, you can plug in the expected value of the option at those trigger points into a pricing calculator to see what the value of your option (as well as other strikes) would be at the respective trigger points. If for instance, the stock were to drop from $80.00 to $77.70 the value of your call, assuming IV were to stay at your original 30% purchase level, will drop from about $2.90 to $1.80. The price trigger is telling you to make a move if the underlying drops a certain amount. But the real impact and the key focus you are concerned with is the value of your position (the asset you hold). So regardless of what happens to the underlying price, you have to be prepared to react and defend your position when it trades at the $1.80 level.

The following chart gives you a flavor of how IV changes combined with price change can trigger the need for an adjustment. Pay particular attention to not only how the various factors impact the core position (the 80 call) but what

happens to the surrounding option values – those you'll be looking at to adjust your trade.

Days to expiration	Stock price	IV	80 call price	75 call price	85 call price
30	80.00	30%	2.90	6.10	1.10
29	77.70	30%	1.80	4.40	0.60
29	80.00	19%	1.80	5.50	0.30
29	79.00	25%	1.80	4.90	0.40

Impact of volatility, time and price changes on option price

From the perspective of adjustment planning, you have to be prepared to make a decision based on a complex combination of factors. But to keep your focus contained, calculate your initial trigger points based solely on change in the underlying asset price and look at what will happen to the value of your position at those critical levels. During the trading day, being alert to how your position value is trading – regardless of what factors are dictating that value – will keep you grounded and poised to take action.

Summary

Price, time and volatility changes work in complex ways to alter the value of your option positions. Using standard deviation calculations to separate key trigger points from background market noise helps you anticipate when to make adjustments.

Clearly, while the calculations discussed here imply a somewhat scientific basis for decision making, as an individual trader you are constantly seeking to determine what the market is actually doing and then acting appropriately. Knowing the mechanics of adjustment scenarios helps prepare you mentally for a decision, but learning to attune yourself to a battery of real-time and shifting circumstances is what ultimately compels you to act on that decision. Relying solely on a formula will help form a disciplined approach which is necessary for successful trading. But discipline is not a sufficient trait of the winning trader. Without tuning your intuitive capabilities, even precision discipline will falter.