

1

How to Trade Chart Patterns

This book will help you identify dozens of chart pattern types. It will also do what no other book does: tell you how chart patterns have performed, over three decades, using statistics from hundreds or even thousands of samples.

That's not enough. That information won't make you a successful trader, but it will give you an edge over other traders. What's missing?

Experience.

If you have enough experience trading stocks, you should be able to look at a chart and determine whether it's time to buy, sell, or stay in cash. That's not as difficult as it seems.

When you look at a chart, look for a bullish chart pattern, such as a double bottom. If you find one that confirms as a valid chart pattern, then it's time to buy.

A confirmed double *top* means it's time to sell. If you do nothing else except trade those two chart patterns, you could make money. Buy when a double bottom appears (or any bullish pattern) and sell when a double top confirms (or any bearish chart pattern). The ride between those two might be bumpy, so you'll need to know how to use a stop-loss order.

Add bells and whistles—such as making sure the market is trending upward and the industry to which the stock belongs is also trending upward—and you'll have a smoother ride. Having both of those on your side increases your chance of a successful trade. Complete the picture with a bullish stock aching to rise, and you're good to go. I'll discuss this setup later in this chapter.

Let me share with you a few ideas on how I make my trading choices. I'll tell you about a few swing trading setups that work and then discuss the winners of performance contests.

Bottom Fishing, Buy the Dip

When I have cash I want to put to work in the stock market, I'll flip through 600 charts on my computer, looking for anything that interests me (that takes less than an hour unless I find something interesting). **Figure 1.1** shows a weekly chart that caught my attention. Why?

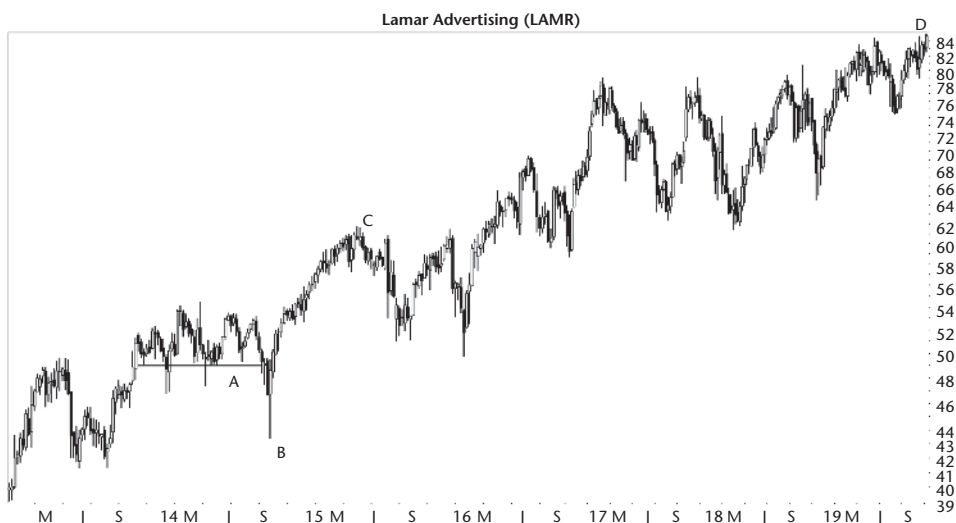


Figure 1.1 The pattern at A and B leads to a strong move higher.

Before I answer that, let me say that I prefer to bottom fish for stocks. That is, I prefer to buy low and sell high. I'm more successful at bottom fishing than momentum trading (buy high, sell higher).

Ideally, a bottom fishing expedition will yield an investment that turns into a momentum play when the stock soars and continues well into the stratosphere.

Some will claim that bottom fishing is a risky play, and they are right. But I argue that momentum trading is even riskier. Only you can decide which practice is best suited for your trading style. I use both, but I prefer fishing because as my portfolio has grown in size, I don't need to trade as much. I can devote my time to *living* instead of playing video games watching candlesticks form on the 5-minute scale.

Returning to the figure, the stock started out low on the left of the chart and climbed to the right, doubling in value. If you were to ride this chart like a rollercoaster, you might exit the ride and stumble around, feeling queasy.

When I looked at Figure 1.1, I wasn't thinking of buying the dip, but that's what I saw. Price moved horizontally at A (if you ignore the few downward price spikes, the bottom of the portion is reasonably flat) followed by a strong and quick plunge to B. After B, the stock recovered quickly to C and bobbed up and down, eventually rising into the clouds at D.

I put the chart aside and flipped to the next stock that caught my attention. **Figure 1.2** shows what I found (weekly chart, again). My software (which I wrote) groups charts by industry so I can get a sense of how the industry is behaving. I had moved from advertising (Figure 1.1) to airline stocks (Figure 1.2).

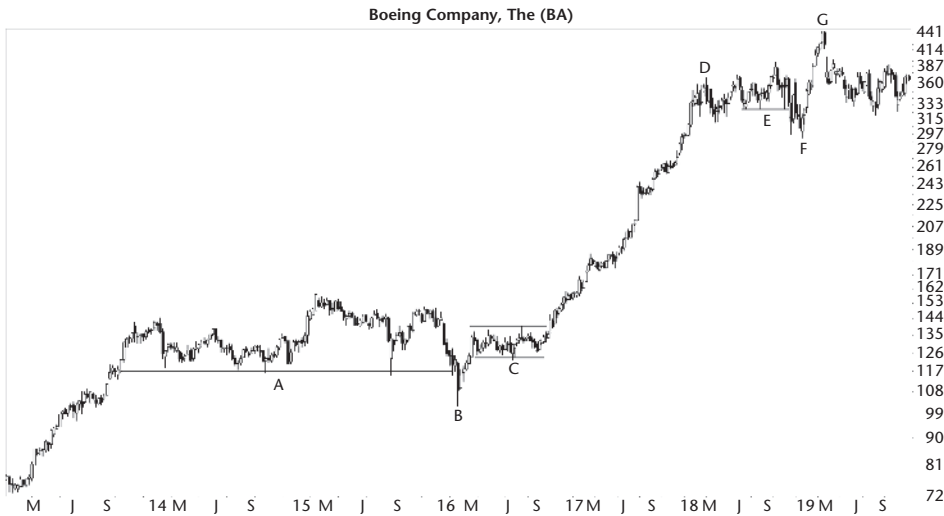


Figure 1.2 A diving board on the weekly scale leads to the stock climbing strongly.

There's the same pattern shown on this chart!

Point A is a flat base, lasting a long time (over 2 years). A plunge follows, taking the stock down fast to B, and then it recovers. This time, the stock zipped up (B to C) but went sideways in 2016 for about 6 months (C) before taking off and flying to D in a nice straight-line run that saw the stock triple in price.

The stock moved sideways again at E (another flat base, but shorter), dropped to F (not a fast drop), and soared to G. The EFG move is a pattern similar to the prior two (this chart and the prior figure), but not as clean looking nor as successful.

The pattern in Figure 1.1 happened in 2013–2014. Pattern AB (Figure 1.2) happened in 2013–2016, and pattern EF occurred in 2018. In other words, I'm finding the same pattern in different years, which is a good thing (potentially different market conditions). Flat base, sudden drop, and fast move higher: Could this be a winning setup that's worked for years?

After finding a number of these patterns, I hunted for those that failed to perform as expected. **Figure 1.3** shows an example of a failure (weekly chart). Notice that the flat base at A started in late 2014, the same as the other two charts. Price moved horizontally at A, dropped swiftly to B, and recovered but only to C before it tumbled to make a lower low at D. After D, though, the stock *did* take flight and delivered (a pun on the package delivery service, in case you missed it), which was reassuring if you buy and hold but terrifying for a swing or position trader who bought before C.

I looked for other examples and eventually catalogued my results. The research led to a pattern I call a diving board. I hunt for it on the weekly scale, but I've noticed variations of this pattern on the daily charts, too.

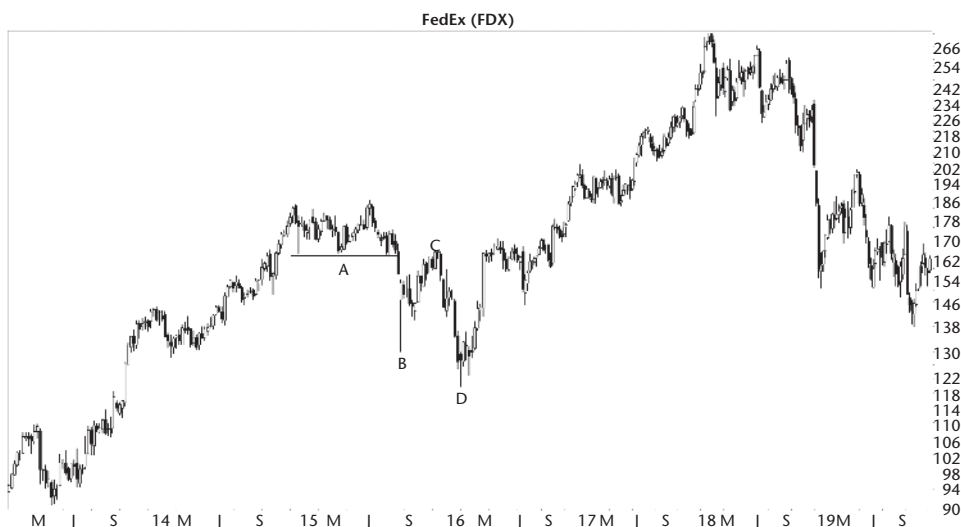


Figure 1.3 This diving board fails to act as expected.

As you look at the three charts, there are differences and there are similarities between them. What's important to performance? Is it the length of the pattern, how far price drops after the flat base, the industry the stock is a member of, or the time of year (seasonality or even bull/bear market)? By looking at a number of charts (and with the help of this book), you can answer those questions and become a more successful trader.

Daily Chart Setup

Figure 1.4 shows the same pattern in the advertising industry (which is suspicious because it's the same industry as Figure 1.1) but a different period (2018). The large breakaway gap up in early November (A) was because of third quarter results, which the market liked (hence the bullish gap). After that, price moved horizontally at B and made a strong push lower to C, followed by a headline-fetching rise up to G.

Along the way, earnings came out and helped momentum push the stock up (D and E). Near the top, earnings at F sent the stock lower, but only for a day. Perhaps the weak quarter was a warning of a coming trend change. At H, the market disliked earnings and seemed to confirm an end to the upward move, at least for a time.

I visited the company's website and found a headline for I (near the diving board), titled, "UBS Global Media and Communications Conference" webcast. I didn't listen to the broadcast, but the stock turned sharply lower a few days later, making a straight-line run down to C. I don't know if the webcast was the cause of the decline or what happened to send the stock skittering to C.

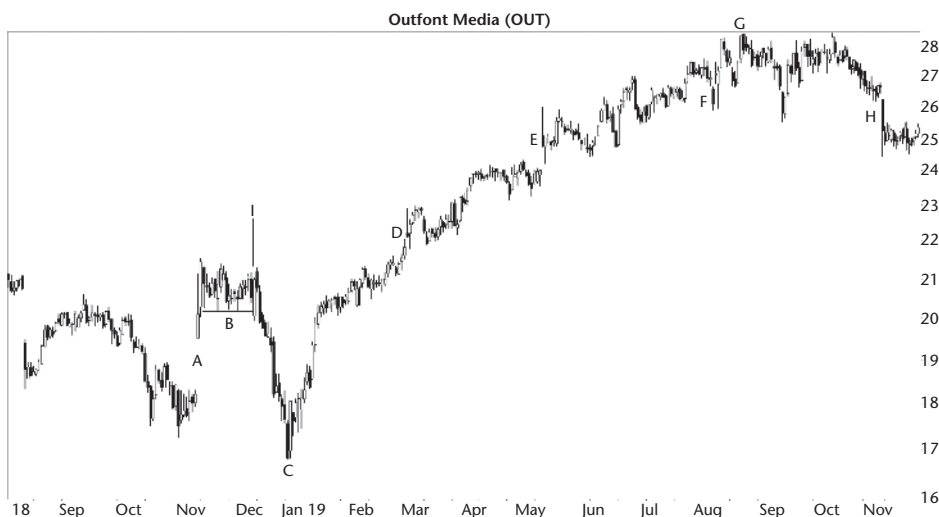


Figure 1.4 This diving board is on the daily chart.

If you owned this stock at the time, it would have been wonderful if you knew the cause of the drop (from I to C).

This chart, on the daily scale, is similar to Figures 1.1 and 1.2. You can use these historical charts to formulate how to trade the pattern. If you can time your entry near C, then you can ride price back up to the base of the diving board (B).

You can wait for price to close above the highest peak at B and ride price upward to G. Below the bottom of the diving board (B) provides a good stop location, too.

The ride upward to G may not be as smooth as shown on this chart or in Figure 1.2 as price climbs from C to D. It might be as treacherous as the climb to D in Figure 1.1. When I look at this chart, though, I see dollar signs in the form of profit. All you have to do is find this pattern and have the courage to trade it.

Another Setup

Figure 1.5 shows another setup but one you should avoid (at least from the bullish side). The setup begins with price making a strong push higher, often in a straight-line run (but be flexible as in this example). I show that upward move at A and then B. The uptrend lasts several months and takes price from about 9 to 13 (which means, a good rise).

Price moves horizontally at C as if trying to catch its breath (ignore the downward February spike at C). The horizontal move should be proportional to the AB move. If AB shows a breathtaking rise, then expect C to be a long



Figure 1.5 This U-shaped pattern delivers a failure.

horizontal move while the bulls and bears regroup. In this example, AB is about 4 months long and C is 6 months long.

After the topping pattern (C), price forms a chart pattern just below the base of the peak. I show that pattern at DE (a double bottom). The double bottom confirms at F when the doji (hard to see) closes above the top of the peak between valley's D and E. Price climbs only to G before reversing.

After G, the stock drops all the way to H. Traders expecting the double bottom to deliver profits to their wallet find holes in their pockets and the money gone.

I see this setup a lot. Price moves up, goes horizontal, and then a chart pattern appears (which can be any bullish pattern, like head-and-shoulders bottom, double bottom, or triple bottom). The pattern confirms as valid and price rises some before reversing and heading lower. The pattern busts its upward breakout, handing bulls a loss.

Just recognizing the double bottom (DE) as a tradable pattern isn't enough. If you research the setup by looking at other charts, you'll see how this setup can lead to a failure of a chart pattern.

This (the double bottom, or head-and-shoulders, or any bullish pattern at the end of the horizontal top) is a setup you'll want to avoid.

Pothole Setup

Figure 1.6 shows a rare setup on the weekly chart, but it's a variation of the pattern shown in the prior figure.



Figure 1.6 A pothole setup happens after a drop and flat base.

The company runs into trouble that lasts for the long term (months). That trouble takes price down from A to bottom at B. At B, the bears want to see the stock continue to drop, but bottom fishers like me see a good value. Buying demand keeps the stock from dropping much farther. A stalemate emerges with neither the bulls nor the bears winning, so the stock just lines sideways (the B to C move).

If the B to C move represents a highway, then CD is a pothole. It's a bear trap, though. Price drops to C and makes another bottom at D, forming a double bottom in this example. The CD move can represent any bullish pattern, like a head-and-shoulders bottom or triple bottom. Anyway, price climbs out of the hole and climbs and climbs and climbs (E).

If you're lucky, the stock will rise like it did here, but don't depend on that happening. I also find this example suspicious because it happens in 2013–2014, the same period as Figure 1.3. Still, it provides the template for the pothole setup.

The key to this pattern is the stock forming a bottom (flat base) followed by a pothole. Make sure the flat base appears after a downtrend. You don't want to go long if price trends up into the pattern (like Figure 1.5). See if you can find a reason why the stock wants to climb (during E in Figure 1.6). The reason could be a good quarter with a positive future outlook issued by the company. Maybe the cost of ingredients is going down or the company can raise prices on the goods they sell because the market for widgets is firming up.

If you look back at the figures in this chapter, they all have a flat base, a period of time where the stock goes horizontal. After that horizontal move, a pattern appears. In the first four figures, price drops (after the horizontal

move). In the last two figures, a double bottom reversal sends price higher, at least for a time.

If you research these setups (that is, find examples in the stocks you trade), that will give you the confidence to trade a similar setup when it appears in a stock you'd like to own.

Here's another idea to help ease the research burden.

Patternz

I wrote pattern finding software for Windows that I call Patternz and made it available for free to download and use (visit my website: www.ThePatternSite.com). One of the things it does is simulate trades. I load up a bunch of stocks, tell it to find double bottoms (as an example, but they happen often), and let the program find them. Then I look at the context: the double bottom in the surrounding price landscape. I'll guess whether to make the trade or stay in cash, and then let the stock play out. It's like day trading on the 1 millisecond scale (you control playback speed). In seconds, I'll know whether the trade made money or not.

What I'm doing is training my brain not only to view the chart pattern, but to get a feel for the conditions where the pattern will thrive or fail. It's an easy way to train your brain to recognize winning and losing setups.

Suppose you find a stock showing a chart pattern you wish to buy. Spend an hour searching for similar setups using the Patternz simulator and you'll be able to tell whether your trade will *likely* work or not.

It's easy to find chart patterns. The Patternz software will find them for me. But having the experience to know whether they will work is what separates a seasoned professional from amateurs.

Amateurs are the ones paying for the dreams of the professionals. Stop giving away your money. Take the time to do the research to discover when a chart pattern will work and when it won't. Then put that knowledge to use to fill your wallet or purse.

That's how you trade chart patterns and make money doing it.

Another Way

I mentioned this setup in the introduction to this chapter. Look for a bullish pattern and buy it when it confirms. Sell when a bearish pattern appears. For example, **Figure 1.7** shows a double bottom at AB. The two valleys bottom near the same price. The squiggles turn into an actual double bottom when price closes above the horizontal line. That happens at

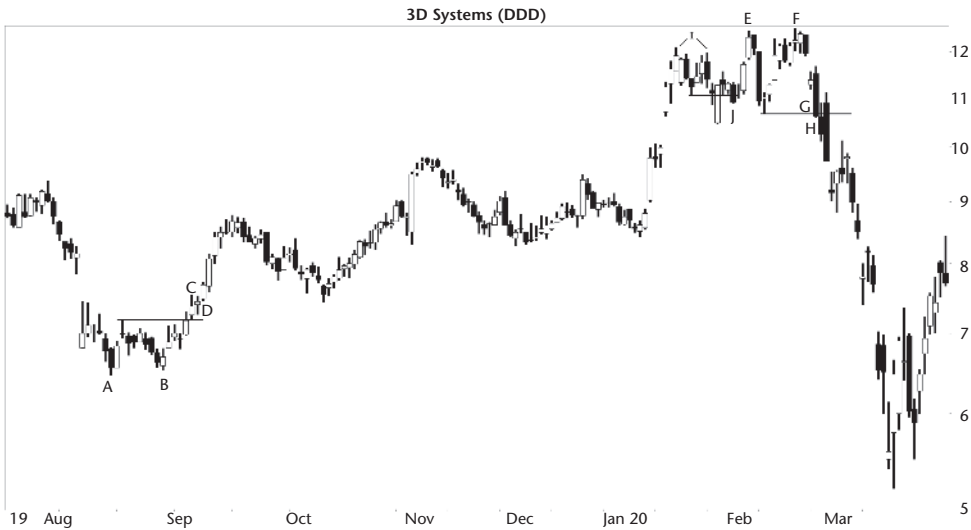


Figure 1.7 Here is a swing trade using a double bottom and a double top.

C (the breakout). The next day, D, you buy the stock at the opening price and receive a fill of 7.40.

From then on, you look for a bearish pattern, one that says the stock is going down. A double top appears at EF. The two peaks top out near the same price. It confirms as a valid double top when price closes below the horizontal line, G. The next day, you sell your shares at the open and receive a fill at 10.60. The difference is \$3.20 or 43% above the buy price.

In fact, if you had spotted an earlier double top (I), you could have sold a day after the downward breakout (J) and received a slightly better fill, at 11.00, for a net gain on the trade of 49%.

If you sold the day after J, you might be kicking yourself for selling too soon. Why? Because price continued to rise to E and higher to F. If you were astute, you may have recognized a 2B pattern at F and sold sooner, making even more money. Don't look for the 2B pattern in this book because I don't review it. Visit my website for details if you're interested in the 2B.

Of course, I cherry picked this trade, and often things aren't as easy as this example suggests. But the idea is simple. Buy bullish patterns and sell bearish ones. Yes, you'll have to find stocks that you believe show promise in an industry doing well and during a rising market (you will want the stock, industry, and market trending in the same direction for the best result).

You may want to score the chart pattern, too. I described the scoring mechanism in my second book, *Trading Classic Chart Patterns*. A review of the technique over a decade later shows it still works well. It will help you select patterns that perform better and avoid the duds.

Knots and Swing Trading Pullbacks

Let's dig in and discuss some swing trading setups. **Figure 1.8** shows what I call a knot. It's a useful way of detecting when a pullback will start and at what price. It's ideal for swing traders who want to make money when price breaks out downward from a chart pattern in its initial push lower.

Let's look at Steelcase on the left of the figure. A double top forms at AB and confirms at C when price closes below the horizontal line. How low will the stock drop in its initial descent?

Answer: to the knot at D. I define a knot as a place in a strong trend (E to A in this example) where price moves sideways for at least 3 days. When it's the *first knot closest* to the double bottom (the first location of support, really, below the pattern's breakout), expect the stock to bottom there and begin a pullback.

In this example, knot D is the first support area below C. Price reaches the area at F and begins to pull back to the price of C.

In my experience with knots, I know to place an order to close out the trade at the *top* of the knot, not the middle or bottom. Sometimes, price touches the top of the knot and reverses. At other times, the stock drops like we see here at F before reversing.

Setup 2

Let's take the case on the far right of the figure ("Setup 2"). In the rise from I to H, there is no knot of support. The uphill move is fast and long.

The way to trade this is to split the move in half and place an order to close out the trade there. In this example, midway up the run from I to H is J.

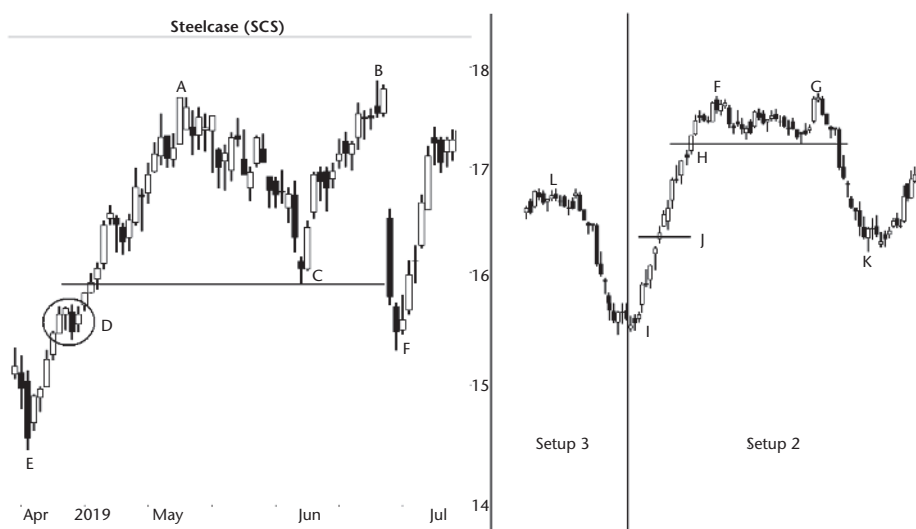


Figure 1.8 Shown are three ways to trade a pullback.

Place an order to cover a short at J. After the double top FG confirms when price closes below H, price drops to K before beginning a pullback.

You don't see this setup often because there is usually a knot along the uphill run from I to H, but it does happen. Take advantage of it and expect the stock to find support midway in the I to H run like it does here at J.

If the run *does* show a knot but it looks too far below the chart pattern, then split the run in half like I've explained. In technical terms, if support is too far away, then price will reverse closer to the chart pattern. What is closer? Most pullbacks bottom in the 7% to 8% range. If a knot is 10% or 15% away, then that's too far unless there's a fundamental reason to drive price down hard and fast (bad earnings, bad future outlook, that kind of thing).

If the move from I to H is exceptionally long, you might want to split the run into thirds and place a trading order a third of the way down to I from H. Search for other stocks showing the same pattern and see where they turn. The Patternz simulator can make the search easy.

Setup 3

Another setup is similar to Setup 2 except there's support between J and H, but not in the same upward trend. Let's rewind the tape and start at the beginning.

Imagine that the line separating Setup 3 from Setup 2 is missing. We see a strong move higher from I to H. We could take half that move and assume price is going to drop back to that area, just as we did in Setup 2. However, looking to the left of I, we see peak L. It's a mean-looking knot of support with price going horizontal for a week or two (but need not be that extensive; a simple well-defined top can do).

Instead of using Setup 2 to place the exit trade midway at J, it's more likely that the stock will drop to the price of L and reverse there. So L is our target. We place a stop a penny above G, place our order to short a penny below the price of H, and use the top of L as the exit.

Knots and Throwbacks

Figure 1.9 shows two more scenarios for swing trading the stock. The left panel shows a double bottom at AB, confirmed when price closes above C. As a swing trader, you don't want to wait to buy into this situation, so you place a buy stop a penny above C. That gets you into the trade right on time.

How far will price rise? Answer: to D. That's the first knot. The knot is the closest region to the breakout where price moves horizontally for at least 3 days. That horizontal movement is obvious because it rests in the circle to the left of D.

D is your short-term swing target. The stock will rise and hit that region and likely turn back to the breakout in a throwback (which it did in this example, after reaching E).

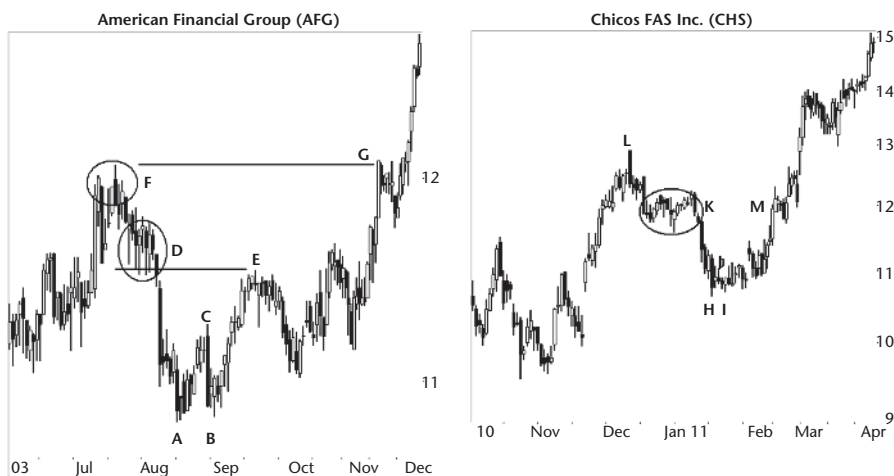


Figure 1.9 Here are two setups that work well for swing trading throwbacks.

You can set a limit order to sell at the top of the knot, but the bottom of the knot works better (less risky). In this case, it *did* work better when the rise to E triggered the order and sold the position. You don't make a lot of money trading the throwback (7% or 8%), so you might have to increase the position size to make it worthwhile. *Do* place a stop-loss order a penny below the lower of the two bottoms (below A in this case).

Setup 2

The prior setup captures the run up to the throwback. What if you want to capture more of an advance? This is a more risky setup, but it also works well. Look for the second higher knot. I show that at F. That's your target.

In this case, the knot is composed of peaks, a ragged top with price spiking upward. Price also moves sideways here for at least 3 days, with lots of overlap, so it's a good area of overhead resistance.

The stock recovers from the throwback and rises to G where it hits resistance setup by the second, higher knot, F. After that, price struggles to push through that resistance but eventually does in this example.

Setup 3

The right half of the figure shows a similar setup. A small double bottom is at HI, confirmed when price closes above J (it's hard to see where that is, though). In this setup, we have a measured move down pattern from L to K (first leg), K is the corrective phase, and KH is the second leg.

We know from studying measured moves that price returns to the corrective phase 77% of the time (see Table 46.5, where 23% remain below the corrective phase and 77% move higher). We know price is going to climb to K. K becomes our target. We use a buy stop a penny above the high at J, a limit order to sell at K, and place a stop a penny below the low at H.

Test these setups in the stocks and markets you trade. Make adjustments accordingly so that they work for your trading style.

Performance Contests

Imagine Dave likes to bowl and he plays three games per match. Over a month he competes five times and wins three out of five matches with one tie. If we tally his win/loss record not for the 15 individual games, but for the five matches, we find he wins 75% of the time (three of four contests with one tie). We might conclude that he's a good bowler or those competing against him are not. I built the following tables just like I described with Dave. They show how often an aspect of a chart pattern leads to better or worse performance.

Table 1.1: Reversals versus Continuations shows the results of the first contest: Which types of patterns perform better, those acting as reversals or continuations? Before I answer that, what is a reversal and a continuation?

A pattern acting as a reversal happens when price enters and exits a chart pattern from different directions (down going into the pattern and exiting out the top, or rising into a pattern and breaking out downward). Patterns acting as continuations see price enter and exit the chart pattern in the same direction (down going into the pattern and breaking out downward, or rising into a pattern and exiting upward).

For example, Figure 1.7 shows double bottom AB acting as a reversal because price drops into the pattern and leaves it going upward. The down-trend reverses. The rectangle at C in Figure 1.2 is a continuation pattern. Price rises into the start of the rectangle (from B) and exits out the top. That is, price *continues* in the direction of the prevailing price trend.

Table 1.1
Reversals (R) versus Continuations (C)

	Bull Market, Up Breakout	Bear Market, Up Breakout
Winner	Reversals (55%)	Reversals (73%)
Performance	43% R, 42% C	30% R, 26% C
	Bull Market, Down Breakout	Bear Market, Down Breakout
Winner	Continuations (87%)	Continuations (75%)
Performance	-14% R, -16% C	-22% R, -23% C

Winner. Table 1.1 tells us that reversals work best after upward breakouts and continuations work best after downward breakouts. For example, I found 55% of chart patterns acting as reversals outperformed continuation patterns in bull markets after upward breakouts. Almost all (87%) of the chart patterns after downward breakouts in bull markets showed patterns acting as continuations beating those which acted as reversals.

Performance. This line in the table shows the average gain or loss for the contests. For example, reversals in bull markets after upward breakouts gained 43%. Continuation patterns saw price rise 42%. Notice that the differences between the contests are often narrow. Continuations, for example, lead by one or two percentage points. The narrow lead is a warning that the indicator is weak as a predictor of future performance.

Table 1.2: Height. Do tall patterns outperform short ones? Tall or short is a measure of the height of the chart pattern divided by the breakout price.

Winner. This line shows how chart pattern performance varies with height. I contend that tall patterns outperform short ones, and we find that belief is true in all market conditions and breakout directions. For example, tall patterns win all of the contests (100%) after downward breakouts in bull markets.

Performance. The performance averages are wide, too, with tall patterns gaining an average of 46% and short ones gaining just 39% (bull market, up breakout). I believe height is a key indicator of future performance, so you'll want to trade tall patterns and avoid short ones.

Table 1.3: Width. Do wide patterns outperform short ones? I measure width from the start to the end of the pattern.

Winner. The numbers in the table tell how well width works as an indicator of chart pattern performance. Contests from patterns in bull markets perform better when they are wide. Bear market patterns show a tie.

Performance. Most performance differences are marginal (one or two percentage points). For example, after downward breakouts in bear markets, wide patterns see price drop 23% on the way to the ultimate low, but narrow ones see price drop an average of 22%. Thus, width is not a strong predictor of performance, but it can give you an edge in bull markets (where performance differences are wider).

Table 1.2
Height: Tall (T) versus Short (S)

	Bull Market, Up Breakout	Bear Market, Up Breakout
Winner	Tall (89%)	Tall (89%)
Performance	46% T, 39% S	30% T, 25% S
	Bull Market, Down Breakout	Bear Market, Down Breakout
Winner	Tall (100%)	Tall (87%)
Performance	-17% T, -13% S	-23% T, -21% S

Table 1.3
Width: Wide (W) versus Narrow (N)

	Bull Market, Up Breakout	Bear Market, Up Breakout
Winner	Wide (81%)	Tie (50%)
Performance	45% W, 40% N	28% W, 27% N
	Bull Market, Down Breakout	Bear Market, Down Breakout
Winner	Wide (85%)	Tie (50%)
Performance	-16% W, -14% N	-23% W, -22% N

Table 1.4
Breakout Day Gap (G) versus No Gap (N)

	Bull Market, Up Breakout	Bear Market, Up Breakout
Winner	Gap (68%)	Tie (50%)
Performance	45% G, 42% N	28% G, 28% N
	Bull Market, Down Breakout	Bear Market, Down Breakout
Winner	Gap (85%)	Gap (57%)
Performance	-16% G, -15% N	-23% G, -22% N

Table 1.4: Breakout day gap. Do gaps that occur on the day of breakout help performance?

Winner, Performance. After downward breakouts in bull markets, I found that 85% of the chart pattern types showed a gap helping performance. The chart patterns dropped an average of 16% versus 15% for those not showing a breakout gap.

Notice that the percentages on the performance line are close, suggesting gaps are not a strong performance indicator, either. Because I measure performance using the opening price the day *after* the breakout day gap, you can participate in the better performance that a gap may provide.

Table 1.5: Throwbacks and pullbacks. Throwbacks and pullbacks are features I love. When they appear, they invariably hurt performance. The table shows the blood. A throwback happens after an *upward* breakout from a chart pattern when price soars but then returns to the breakout price (or comes close to it) within a month. Pullbacks are the same except the breakout is downward.

Winner, Performance. For example, 97% of the time I found that throwbacks hurt performance after upward breakouts in bull markets. In contests of patterns with downward breakouts in bear markets, all of them (100%) showed that pullbacks hurt performance. The average decline of those contests was 26% for those patterns not showing a pullback (N) and 20% for those that did pull back (P). For a downward breakout, that's a wide difference.

Table 1.5
Throwbacks (T) and Pullbacks (P) versus None (N)

	Bull Market, Up Breakout	Bear Market, Up Breakout
Winner	Throwbacks (97%)	Throwbacks (89%)
Performance	40% T, 48% N	25% T, 33% N
Occurrence	64%	65%
	Bull Market, Down Breakout	Bear Market, Down Breakout
Winner	Pullbacks (91%)	Pullbacks (100%)
Performance	–14% P, –17% N	–20% P, –26% N
Occurrence	64%	63%

Occurrence. The Occurrence line in the table shows how often a throwback or pullback occurred, on average. Throwbacks and pullbacks happen almost two out of three times (63% to 65%).

Table 1.6: Rising or falling volume. The table shows how patterns behave if volume is rising or falling from the start of the pattern to the end, found using linear regression.

Winner. For upward breakouts, performance improves just over 60% of the time if volume is rising. Downward breakouts are mixed with bull markets in patterns showing falling volume doing best but bear markets show a tie.

Performance. The performance numbers are close, though, especially for downward breakouts. For example, patterns with rising volume (R) saw price climb 44% to the ultimate high (bull market, up breakout). Patterns with falling volume (F) showed gains averaging 42%. The volume trend is not a good predictor of future performance.

I think technical analysts put too much emphasis on volume. (Consider that for every share sold, one is bought. If institutions are selling massive amounts of shares, then other institutions are buying those shares.)

Table 1.7: Heavy versus light breakout day volume. I compared breakout day volume with the prior month.

Table 1.6
Rising (R) versus Falling (F) Volume

	Bull Market, Up Breakout	Bear Market, Up Breakout
Winner	Rising (62%)	Rising (61%)
Performance	44% R, 42% F	29% R, 27% F
	Bull Market, Down Breakout	Bear Market, Down Breakout
Winner	Falling (56%)	Tie (50%)
Performance	–15% R, –15% F	–22% R, –22% F

Table 1.7
Heavy (H) versus Light (L) Breakout Day Volume

	Bull Market, Up Breakout	Bear Market, Up Breakout
Winner	Heavy (79%)	Heavy (79%)
Performance	43% H, 41% L	29% H, 26% L
	Bull Market, Down Breakout	Bear Market, Down Breakout
Winner	Heavy (67%)	Light (55%)
Performance	-15% H, -15% L	-22% H, -22% L

Winner, Performance. The table shows that heavy breakout day volume suggests better performance most of the time. For example, I found that 79% of the time after upward breakouts in bear markets, high volume led to better performance by 29% (for heavy volume) versus gains averaging 26% for patterns with light breakout day volume.

You will notice that the percentage difference is not great, especially after downward breakouts (which show ties). Breakout volume is not as good a predictor of performance as many believe.

Table 1.8: Trend change. This table is different from the others. It shows how often price continues rising or falling more than 20% after the breakout. My thinking is that if a chart pattern shows large post-breakout moves, then it should be easier to make money trading them. Conversely, a pattern that has lots of small moves may be difficult to trade profitably.

Occurrence. Only in bull markets do the majority (55%) of chart pattern types see price rise more than 20%. The worst performance (28%) comes from chart pattern types with downward breakouts in bull markets. That poor performance makes intuitive sense because the market trend is upward but the breakout is downward. It's like swimming against the current, so you'd expect the swimmer to struggle.

Notice that downward breakouts in bear markets place second (49%). It's another indication that trading with the trend (upward breakouts in bull markets and downward breakouts in bear markets) leads to better performance.

Table 1.8
Trend Change

	Bull Market, Up Breakout	Bear Market, Up Breakout
Occurrence	55%	46%
	Bull Market, Down Breakout	Bear Market, Down Breakout
Occurrence	28%	49%

Table 1.9
Single Busted Patterns (S) versus Proxy (P)

	Bull Market, Up Breakout	Bear Market, Up Breakout
Winner	Single bust (97%)	Single bust (75%)
Performance	–22% S, –15% P	–24% S, –22% P
Single bust occurrence	53%	76%
	Bull Market, Down Breakout	Bear Market, Down Breakout
Winner	Single bust (94%)	Single bust (79%)
Performance	53% S, 41% P	40% S, 28% P
Single bust occurrence	70%	63%

Table 1.9: Single busted patterns versus proxy. The final table in this chapter shows how well busted patterns perform against non-busted ones.

Winner. Single busted patterns outperform their non-busted counterparts a good portion of the time. That’s especially true for chart patterns in bull markets. They win more than 90% of the contests. Bear markets also win contests, but at a more sedate pace.

Performance. I compared the performance of single busted patterns with their proxy (P), the non-busted pattern. In most cases, the performance difference is quite wide.

For example, in bear markets after downward breakouts, single busted patterns with downward breakouts saw price rise an average of 40% above the top of the chart pattern. The non-busted patterns saw price climb just 28%, on average.

Occurrence. This line tells how often a single busted pattern happens (versus double or more than two busts). The higher the number, the easier it’ll be to trade a busted pattern that wins big. That means you are more likely to trade a single busted pattern than a pattern that double or triple+ busts.

Bull markets with upward breakouts show fewer single busts (53%) than the others. I think that’s because when the pattern busts, price will be heading lower and that’s going against the bullish current. It invites a double bust.

The chapters that follow look at individual chart patterns. I use statistics to help discover how they behave, and I share my findings with you.