How To Draw Useful Trendlines

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One of the main purposes of drawing trendlines is to find or evaluate turning points in price action. The mental exercise of drawing trendlines on a chart is as valuable to your understanding as the end result.

A trendline is a line that is drawn connecting two or more *significant* highs or *significant* lows (called "touch points") to show the prevailing direction of price movement. Trendlines are visual representations of support and resistance and may be found in any time frame. In this context, the word "significant" means price has made a major peak or valley, and that price does not break the trendline between the first and last of the touch points.

The first thing you should know about drawing trendlines is that you are going to use a lot of ink and mark up a lot of sheets of paper. Even experienced analysts will draw several trendlines on a chart before they find the one or two that are just what they wanted. This happens because there are lots of choices and the process of marking the first thing you notice often reveals things you did not see before.

Do not expect to sit down with a chart and make one, decisive line across it. That only happens occasionally. Usually you wind up with four or five lines before you are satisfied that you really have the right one(s). We are going to start with a USO (United States Oil fund) chart and discuss both the theory and the practice of drawing useful trendlines.

We will concentrate on high trendlines. The rules for drawing low trendlines are essentially the same as for drawing high trendlines, you just have to invert the logic. High trendlines are often used for analyzing price declines. Low trendlines are often used for analyzing price advances.

One of the first rules you will hear about drawing high trendlines is that you should start from the highest point prior to the beginning of the decline. One of the basic rules of drawing trendlines is that a trendline must only touch price at its high points (or low points) and the trendline must not be crossed by price. Another common rule is that a trendline that touches price three times is more important than a trendline that only touches price twice.

On our first chart we have a trendline that starts at the highest point before the decline, and it has three touch points. However, after touch point number 3 in late September, price went into an even steeper decline which carried it away from this first trendline. This trendline will still be important at some time in the future, but it is not very interesting right now.

Depending on whose book you read, some analysts say you should use the second highest point instead of the highest. Point 2 is the second highest, but it is already part of the 1-2-3 trendline we already drew, so it is of no interest. (The 2-3 line is same as the line 1-2-3, so there's no point in redrawing it.)

We would normally draw our next trendline through the highs in late September (point 3 in our first chart) and late November, but we're going to jump ahead in order to illustrate another important rule. In Chart 2, we have drawn a trendline through the highs in late November and late December. Like our first trendline, this one has three touch points: late November, late December, and about the 10th of January.

Price breaks up through this trendline about the 13th of January; however, this does not constitute a good buy signal. If we draw a small zigzag line from the low in the middle of December up to the high 5 days later, and then down to the low in the first half of January, we see that the ending point, c, is lower than the starting point, a. This is a warning that USO is still headed downward and the price break just after point c should not be trusted. (This zigzag line follows the same rules as the ones described in Chapter 4 except here we are only drawing in a subsection of the full line and we are picking the turns ourselves.)

When you see a high trendline with a low slope followed by a higher-slope trendline, followed by a really steep trendline (like chart 3), what you are seeing is a downward acceleration pattern.

When a downward acceleration pattern hits bottom, it may take it a few months to stabilize, just like USO did. Everybody is scared and nobody wants to be the first to buy, so watch your step. This is especially true when the a-b-c zigzag has a negative bias. The primary purpose of the zigzag line is to help your brain ignore the daily price fluctuations (i.e., noise) and find the underlying pattern in small sections of the chart.

In chart 4 we will back up and look at the trendline that joins the high at the end of September with the high at the end of November. This trendline is very interesting because it also hits the high point of price in mid-February. A trendline that touches price three times is widely referred to as a "confirmed trendline" and it is considered much more important than a trendline that only touches price twice. This trendline is broken by price in early March, which brings up the question of whether this is a good place to buy or not.

On this chart, it is obvious that a better entry point will come later; however, when you are looking at this price break as it happens, the third trading day in March is the hard right edge of the chart. On that day we do not have the luxury of looking ahead to the low coming later that month; however, we <u>can</u> look at what extra information a zigzag line will provide us.

Chart 5 is slightly magnified to show the detail of price action in February. After the low in late January, we have a "consolidation" period. Consolidation essentially mean a period of time when price seesaws up and down but doesn't really get anywhere. The a-b-c section looks positive and the b-c-d section shows some weakness. But in the last section before price breaks up through the trendline, the c-d-e section, we see even more weakness. The closing price at point "e" is clearly lower than the close at "c".

Gerald Appel said, "It is better to miss a profit than to take a loss," meaning you should not take a position unless all the signs are in your favor. The fact that point "e" is lower than point "c" is a warning that the decline in USO may not be over. Always look for a zigzag pattern with the third point higher than the first point before buying a security.

> Note: When drawing the zigzag line, it is necessary to make judgments about how big the swings should be and which turns are significant for a given trendline. Just as when you are drawing trendlines, expect to make several tries before you are satisfied with the results. Like most things, you will get better with practice. I will try to include examples in the weekly reports so you will get a chance to see how it should be done. By the way, the zigzag lines on most of the charts shown here were drawn, erased, and redrawn by me at least once. You get to see the polished end result, but the process leading up to that final result is seldom as tidy as what appears here.

Chart 6 shows yet another trendline that rests on the high point in late September. This one only has two touch points with the second touch point happening in early March. By now, everyone is thinking that USO couldn't possibly go any lower, except that is the same thing everyone was thinking when it hit $16.50 in late January.

As we look at the zigzag line on chart 7, "c" is significantly lower than "a". This zigzag line is warning us that even though price has broken up though this 5-month trendline, the trend has not yet given us a positive buy signal.

Two weeks later, we get another peak that provides the opportunity to draw a new trendline on chart 8.

And we draw another zigzag line.

In the long run, patience pays off. Price has broken up through the trendline which is now 6-months long, and the zigzag line is telling us that this trendline break is credible because "c" is higher than "a". Now it is time to buy some shares of USO.

I often use a trailing stop as one of my exit tools, but trendlines can be useful for both short-term exits or fairly long-term exits. (We will look at a trailing stop later.) If we examine a close-up chart of price action to get a more detailed view, we can see the entry and exit points provided by the 'a' and 'c' points of the zigzag line that confirmed the turn when price broke up through the 6-month descending trendline on April 6th.

Chart 10 provides a magnified view of the events commencing in April and May. On April 6th price closed above the 6-month descending trendline from the previous chart. That was the signal day, telling us that it was safe to enter (buy USO shares) at the open on April 7th.

If you happened to be watching USO, you might see an opportunity to enter at the open on April 6th (at $18.44) but if you are doing end-of-day analysis, you do not really know that the signal has arrived until you see the close above the long trendline on the evening of the 6th. As such, you will be entering at the open on the 7th, near $18.23.

Once you are in a trade, it is worth it to check on your position once or twice a week for the first few weeks. As the trade develops, you will see the trendline through points "a" and "c" of the zigzag line advancing. On the 15th of May, the fact that price closed barely above the a-c trendline is a warning signal. It is telling you that it is time to start watching this trade every day. On the 18th, price wandered around below the trendline. An hour before the market closed, price was back near where it opened, and well below the a-c trendline.

This means that the chance of further declines outweighs the chance of further advances and it is time to pull the plug on this trade. By entering a sell order before the market close, you should have been able to exit somewhere around the $20.40 mark. This would allow you to capture close to a 12% profit in 6 weeks.

Using Trendlines When Exiting from Longer Trades

For an example of a longer-term position, we will use UUP, an ETF (exchange-traded fund) that tracks the U.S. Dollar versus other currencies.

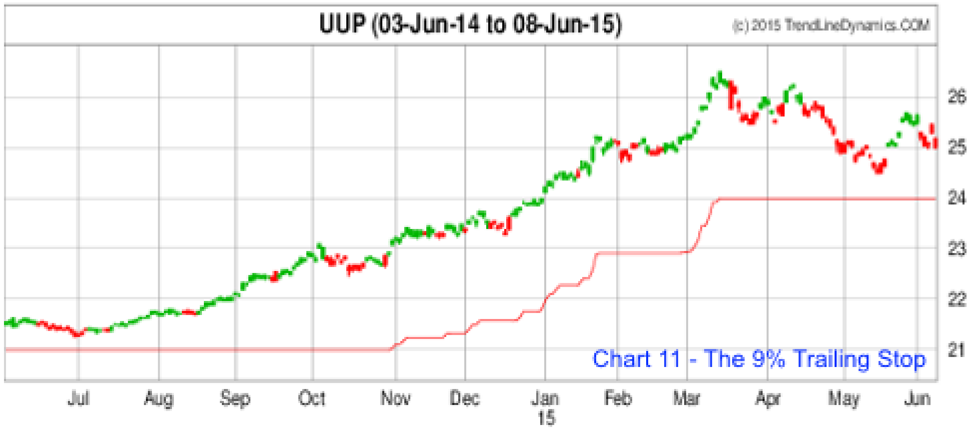

Chart 11 - The 9% Trailing Stop

I use a 9% trailing stop for my worst-case exit signals. The low trailing stop follows price at a distance. It can advance or go sideways, but a low trailing stop never goes down. This allows the trade to develop without being stopped out too soon, but with a 9% stop, you give back quite a bit of your potential profit before it gives you an exit signal.

Our first cut at trendline analysis of price action (chart 12) shows that UUP is accelerating upward. This can be a sign of a market that is running away. When that happens, the market may fall back rapidly when it runs out of people willing to buy at such a high price.

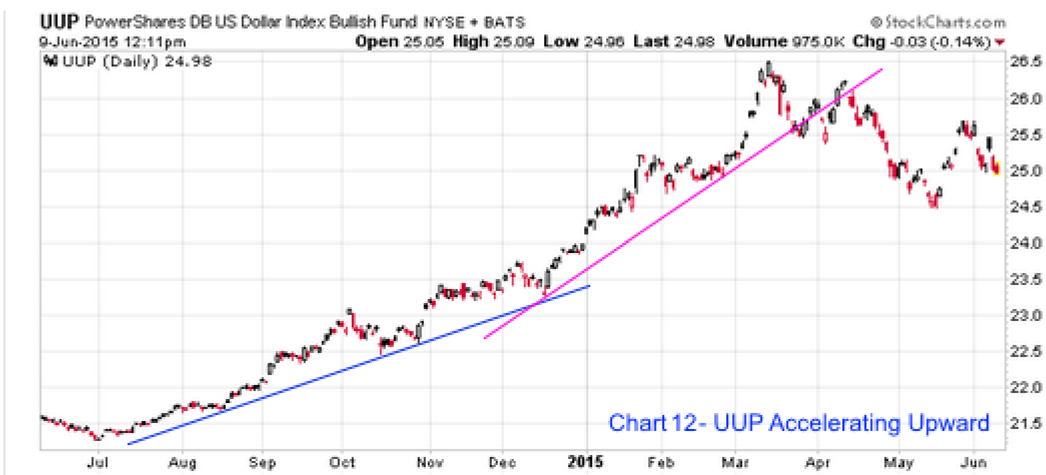

Chart 12- UUP Accelerating Upward

Under closer examination in chart 13, we see that exiting our position when price breaks down through the upper trendline may be premature. On the a-b-c zigzag line, "c" is higher than "a", telling us that the short-term bias is still up.

For the next trendline (chart 14) the new a-b-c zigzag line is tell a very different story. "c" is less than "a". If "c" had been greater than, or even close to "a", then it might be worth it to wait and see if price would move higher. But "c" is significantly lower than "a", telling us that the wise thing to do would be to exit the next time price broke down through the trendline.

The signal for that exit came two days after "c" and an exit at the open the next day would get us out close to $25.70 -- very close to the trendline itself -- and far better than $24.00 where the trailing stop was (on page 6).

In Closing

Drawing useful trendlines for chart analysis is not hard. It does take practice and a willingness to experiment. I have had times when I marked up a chart, printed another and marked that up, and then did it all over again. Sometimes the patterns get buried in the noise.

When a security or fund is in transition from one trend to another it can make it very difficult to find useful trendlines. If you are having trouble figuring out what is going with stock A, go find another stock. Look for securities, commodities, funds, or markets where it is obvious what is going on. Trendline analysis works for all markets.

Always start your analysis at the macro level. Start with a chart that is at least 10 to 15 times longer than what you are really interested in. Before looking at a 3-month chart, go look at a 3-year chart. The long chart gives you perspective for what you will see when you look at the short chart.

Do not waste time on enigmas and never force an analysis. Sometimes the correct answer is "I don't know." When that happens, move on. Never place money at risk when you do not understand what is going on in a market.

Finally, if your analysis looks fine but that little voice in the back of your head is telling you that something is wrong, pay attention to that little voice. Intuition is stuff we know even though we do not know how we know it. If you have a gut feeling that something is not right, then you probably missed something in your analysis. Go find something else to analyze.

The next chapter will delve more deeply into trendlines and introduce channels.