

The Chandelier exit technique

The Chandelier Exit hangs a trailing stop from either the highest high of the trade or the highest close of the trade. The distance from the high point to the trailing stop is probably best measured in units of Average True Range. However the distance from the high point could also be measured in dollars or in contract based points.

Here are three simple examples: (As usual we will use long side examples. Simply reverse the logic for short trades.)

1. Place a stop at the highest high since we entered the trade minus three Average True Ranges.
2. Place a stop at the highest high of the trade minus \$1500.00.
3. Place a stop at the highest high of the trade minus 150 points.

The value of this trailing stop is that it moves upward very promptly as higher highs are reached. The Chandelier name seems appropriate and should help us to remember the logic of this very effective exit. Just as a chandelier hangs down from the ceiling of a room, the Chandelier Exit hangs down from the high point or the ceiling of our trade. The reason we prefer to use units of Average True Range to measure the distance from the high to our stop is that the ATR is applicable across markets and is adaptive to changes in volatility. We can use the same formula to trade corn, yen, coffee, or stocks. If the trading ranges expand or contract our stop will automatically adjust and move to the appropriate level continuously staying in tune with changing market conditions. (Members who are not already familiar with the many valuable applications of Average True Range should be sure to review Bulletins #10, 11, 13, and 14.)

In Dr. Van K. Tharp's excellent book, *Trade Your Way to Financial Freedom*, he refers to a study he conducted to demonstrate that an effective exit strategy could produce profits even with random entries. We were not surprised to see that the exit methodology he used to produce the profitable test results across a diversified portfolio of futures markets was the Chandelier Exit. (Tharp used three ATRs trailing from the highest or lowest close and used a ten-day exponential moving average to calculate the ATR.)

Protecting Open Profits

When we discussed the Channel Exit in Bulletin #34 we suggested that at the beginning of a trade we should use a wide stop and then, as profits are accumulated, tighten the stop by reducing the number of bars in the Channel. The same profit-protection logic can be applied using the Chandelier Exit. At the beginning of a trade the distance to the stop in most futures markets should probably be in the neighborhood of 2.5 to 4 Average True Ranges. As the trade becomes increasingly profitable we can bring the stop closer by reducing the units of ATR from the high to our stop. Let's assume that we started with 3 ATRs at the beginning of the trade. After we have reached our first profit level we might tighten the stop to trail the high point at only 1.5 ATRs. After the second profit level is reached we might want to tighten the trailing stop to only one ATR. We have had good results with some highly profitable trades by trailing exits as close as a half an ATR. We have found that some markets have better trending characteristics than others and we prefer to adjust the trailing stops on a market by market basis so there is no universal formula that we would recommend. The important message we want to convey is that to capture the maximum profit potential of trend-following trades the trailing stops need to be tightened as significant profits are accumulated.

Keep in mind that although the highs used to hang the Chandelier move only upward the changes in volatility can shorten or lengthen the distance to the actual stop. If you want to see less fluctuation in the stop distance use a longer moving average to calculate ATR. If you want the stop placement to be more adaptive to changing market conditions, use a shorter moving average. We normally use about twenty bars to calculate the ATR unless there is a specific reason to adjust it. In our experience the use of very short averages (3 or 4 bars) for the ATR can often create problems when there are brief periods of small ranges that tend to bring the stops too close. These abnormally close stops may cause us to exit prematurely. If we want to have a short and highly adaptive ATR without risking placing stops that are too close, we can calculate a short average and a longer average (maybe four bars and twenty bars) and use the average that produces the widest stop. This technique allows our stops to move away quickly during periods of high volatility without the risk of being unnecessarily whipsawed during brief periods of low volatility.

Combining the Channel Exit and the Chandelier

We like to start our trades with the trailing Channel Exit and then add the Chandelier Exit after the price has moved away from our entry point so that the open trade is profitable. The Channel Exit is pegged at a low point and does not move up as new profits are reached. The Channel Exit will move up only when enough time has passed that the previous low is dropped from the data period of the channel. The Channel Exit moves up very gradually over time but it does not move up relative to any recent highs that are being made. This is why we need the Chandelier Exit in place to make sure that our exits are never too far away from the high point of the trade.

By combining the two exit techniques we can use the Channel Exit as an appropriate stop that very gradually rises at the beginning of the trade. However if the trade makes a run in our favor the prices will quickly move very far away

from our slowly trailing Channel Exit. Once we are profitable we need to have a better exit that protects more of our profit. At this point it would make sense to switch to the Chandelier Exit which will rise instantly whenever new highs are reached. This valuable feature of the Chandelier makes it one of our most logical exits from our profitable trades.

by Chuck LeBeau