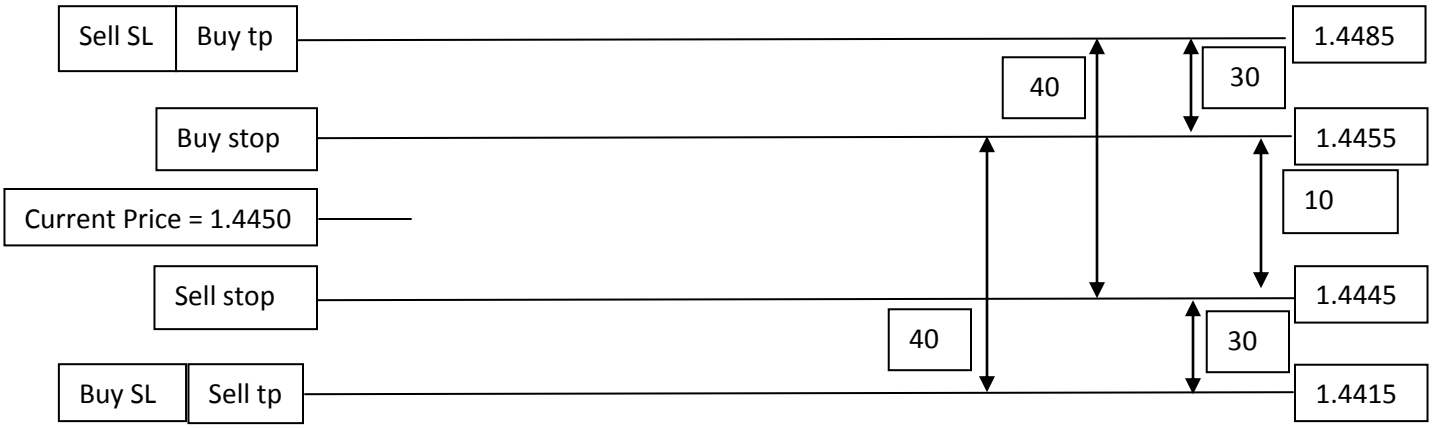
Blue Strategy

The premise behind this strategy involves using probabilities to improve our chances of making a profit. I have combined the ideas of hedging and martingale in order to improve the probability. I am going to step through some specific examples in order for you to see how this should work:

Let's say that the current price is 1.4450. We place a buy stop order at 1.4455 (5 pips above the current price) and a sell stop order at 1.4445 (5 pips below the current price). Our pending stop loss for the buy stop order is at 1.4415 (40 pips below our buy stop) and our pending take profit for the buy stop order is at 1.4485 (30 pips above our buy stop). Our pending stop loss for the sell stop order is 1.4485 (40 pips above our sell stop) and our pending take profit for the sell stop order is at 1.4415 (30 pips below our sell stop).



We need to ensure that our buy stop loss is the same as our sell take profit and that our sell stop loss is the same as our buy take profit. This is important for this strategy to work. In our example, our stop losses and our take profits match up like they should. The next important thing we need to do is determine the proper weighting for our position size. I propose that we use a filter but I will elaborate on that later. Let's use this example to as a way to understand how the hedging strategy works. Let the buy position size be set to .01 lots and the sell position size be set to .01 lots times the mFactor. The mFactor is just a multiplier that we use to determine the relationship between the buy position size and the sell position size. Before we go any further we need to understand the rate and the mFactor and how they are related. The rate is determined by taking the stop loss and dividing it by the take profit. In our example, we have a stop loss of 40 pips for the buy stop order and a stop loss of 40 pips for the sell stop order. It is important that the stop losses are equal for this strategy to work. Also in our example, we have a take profit of 30 pips for the buy stop order and a take profit of 30 pips for the sell stop order. Again it is important that these are equal for this strategy to work. In the beginning of this paragraph I noted that we need to ensure that our buy stop loss is the same as our sell take profit and that our sell stop loss is the

same as our buy take profit. Keep this in mind going forward. We can determine our rate as:

rate = stop loss / take profit

rate = 40 / 30 = 1.33

The mFactor is the relationship between the buy position size and the sell position size as I mentioned above. Before we go any further, it is imperative that our mFactor is greater than our rate in order for us to be profitable. To show this relationship lets use a rate of 1.33 which is the same as our example. Lets also use an mFactor of 1.50. Using this mFactor we calculate our lot sizes as:

buy position size = .01 lots

sell position size = .01 * mFactor = .01 * 1.50 = .015 lots

Keep this position sizing in the back of your mind because we will back to it in just a bit.

In order for me to tie together the rate and the mFactor I am going to walk you through the possible scenarios:

Scenario 1: Price rises from our current price (1.4450) to our buy stop (1.4455) and we enter a long trade. Price continues to rise without falling and hits our buy take profit (1.4485). At this point, we want to delete/cancel our sell stop order and repeat the process.

Profit = Winning Trade

Profit = 1b * TP

Profit = .01 lots * 30 pips = .30

Scenario 2: Price drops from our current price (1.4450) to our sell stop (1.4445) and we enter a short trade. Price continues to fall without rising and hits our sell take profit (1.4415). At this point, we want to delete/cancel our buy stop order and repeat the process.

Profit = Winning Trade

Profit = 1s * TP

Profit = .015 lots * 30 pips = .45

Scenario 3: Price rises from our current price (1.4450) to our buy stop (1.4455) and we enter a long trade. Price fails to continue rising and falls back down triggering our sell

stop (1.4445) and we enter a short trade. Now at this point we are hedged with a long and a short trade. Price continues to drop below our sell stop and hits our sell take profit (1.4415). Remember this is the same place as our buy stop loss (1.4415) so we will be stopped out of our long trade. At this point, we have no pending orders to delete so we can just repeat the process.

Profit = Winning Trade – Losing Trade

Profit = (1s * TP) – (1b * SL)

Profit = (.015 lots * 30 pips) – (.01 lots * 40 pips) = .05

Scenario 4: Price falls from our current price (1.4450) to our sell stop (1.4445) and we enter a short trade. Price fails to continue falling and rises back up triggering our buy stop (1.4555) and we enter a long trade. At this point, we are hedge with a short and a long trade. Price continues to rise above our buy stop and hits our buy take profit (1.4485). Remember this is the same place as our sell stop loss (1.4485) so we will be stopped out of our short trade. At this point, we have no pending orders to delete so we can just repeat the process.

Profit = Winning Trade – Losing Trade

Profit = (1b * TP) – (1s * SL)

Profit = (.01 lots * 30 pips) – (.015 lots * 40 pips) = -.30

Scenario 5: Price rises from our current price (1.4450) to our buy stop (1.4455) and we enter a long trade. Price fails to continue rising and falls back down triggering our sell stop (1.4445) and we enter a short trade. At this point, we are hedged with a long and a short trade. Price fails to drop to our sell take profit and rises back up and hits our buy take profit (1.4485). Remember this is the same place as our sell stop loss (1.4485) so we will be stopped out of our short trade. At this point, we have no pending orders to delete so we can just repeat the process.

Profit = Winning Trade – Losing Trade

Profit = (1b * TP) – (1s * SL)

Profit = (.01 lots * 30 pips) – (.015 lots * 40 pips) = -.30

Scenario 6: Price falls from our current price (1.4450) to our sell stop (1.4445) and we enter a short trade. Price fails to continue dropping and rises back up triggering our buy stop (1.4455) and we enter a long trade. At this point, we are hedged with a short and a long trade. Price fails to rise to our buy take profit and falls back down and hits our sell take profit (1.4415). Remember this is the same place as our buy stop loss (1.4415) so

we will be stopped out of our short trade. At this point, we have no pending orders to delete so we can just repeat the process.

Profit = Winning Trade – Losing Trade

Profit = (1s * TP) – (1b * SL)

Profit = (.015 lots * 30 pips) – (.01 lots * 40 pips) = .05

This is all the possible scenarios that can occur using this strategy. As you can see, 4/6 (66%) end in a profit and 2/6 (33%) end in a loss. Now how does all of this relate to the rate and mFactor? Well the in order to have a profit, the following condition must exist:

1s = sell position size = .015

1b = buy position size = .01

TP = 30 pips

SL = 40 pips

rate = SL / TP = 40/30 = 1.33

mFactor = 1s / 1b = .015 / .01 = 1.50

Proof:

(1s * TP) – (1b * SL) > 0

1s > (1b * SL) / TP

1s / 1b > SL / TP

mFactor > rate in order to be profitable

So what happens if the mFactor is less than the rate? Let's consider the same scenarios as above only we will change the rate to 1.5 and the mFactor to 1.33:

rate = SL / TP

SL = 40

TP = SL / rate = 40 / 1.5 = 26.67

mFactor = 1s / 1b

1b = .01

1s = mFactor * 1b = 1.33 * .01 = .0133

Scenario 1:

Profit = Winning Trade

Profit = 1b * TP

Profit = .01 * 26.67 = .2667

Scenario 2:

Profit = Winning Trade

Profit = 1s * TP

Profit = .0133 * 26.67 = .3547

Scenario 3:

Profit = Winning Trade – Losing Trade

Profit = (1s * TP) – (1b * SL)

Profit = (.0133 * 26.67) – (.01 * 40) = -.0453

Scenario 4:

Profit = Winning Trade – Losing Trade

Profit = (1b * TP) – (1s * SL)

Profit = (.01 * 26.67) – (.0133 * 40) = -.2653

Scenario 5:

Profit = Winning Trade – Losing Trade

Profit = (1b * TP) – (1s * SL)

Profit = (.01 * 26.67) – (.0133 * 40) = -.2653

Scenario 6:

Profit = Winning Trade – Losing Trade

Profit = (1s * TP) – (1b * SL)

Profit = (.0133 * 26.67) – (.01 * 40) = -.0453

As you can see when the mFactor is less than the rate, scenario's 3 and 6 become losers. Thus, only 2/6 (33%) are profitable. The other 4/6 (66%) end up in losses. Therefore we can conclude that the mFactor must always be greater than the rate in order for us to be profitable.

So at this point we know how the hedge portion of the strategy works along with the relationship between the rate and mFactor and why the mFactor must be greater than the rate. We also know all the possible scenarios that can occur with this strategy. Now I want to address the filter. As you can see above without a filter, there is a 66% chance that a trade will end in profit. If we can add a filter which gives us a bias for long or short then we should be able to improve the results. We need to test several different filters and compare the results. My first idea of a filter is simple; if the 20 ema is above the 50 ema then we have a long bias. If the 20 ema is below the 50 ema then we have a short bias. So what do we want to do if we have a long bias? Well if we have a long bias, then we are expecting our buy take profit to be hit without putting us into the hedge situation. What we can do is alter the weighting of our position size in order to increase our profits. So initially we had our initial buy size being .01 lots and our initial sell size being .02 lots. If we have a long bias then we should weight our position size so that our initial buy size is heavier than our initial sell size. Thus, we will buy .02 lots and sell .01 lots when we have a long bias. When we have a short bias, we will buy .01 lots and sell .02 lots. Even if our filter is only 60% correct, we should see a slight improvement in our results.

Ok now we can move on to the final portion of the strategy which involves a martingale type approach. A typical martingale approach doubles the position sizing on the trade following a losing trade. The approach I am using does not double the position sizing on the trade following a losing trade…what we do is we increase the position sizing by the mFactor. Consider the following:

If we have a short bias then our weighting is as follows:

Initial buy size = 1b	Initial sell size = 1s
1b = .01 lots	1s =.015 lots
2b = .0225 lots	2s = .03375 lots
3b = .050625 lots	3s = .0759375 lots
etc	etc

If we have a long bias then our weightings are just reversed from the short bias:

1s = .01 lots	1b = .015 lots
2s = .0225 lots	2b = .03375 lots
etc	etc

Here is how these are calculated:

If the bias is short then we start with 1b = .01 lots. To get 1s we multiply 1b by the mFactor of 1.5 which gives us .015 lots. To get 2b we multiply 1s by the mFactor of 1.5 which gives us .0225 lots. To get 2s we multiply 2b by the mFactor of 1.5 which gives us .03375 lots. Continue as much as needed.

If the bias is long then we start with 1s = .01 lots. To get 1b we multiply 1s by the mFactor of 1.5 which gives us .015 lots. And continue just like we did above.

So what advantage does this have over a typical martingale approach? To see the advantage, let's consider this:

Let's say you begin with .01 lots.

Martingale Approach:

After 10 consecutive losing trades, you would have to trade 10.28 lots

.01 * (2^10) = 10.28

My Approach using the mFactor

After 10 consecutive losing trades, you would have to trade .58 lots

.01 * (1.5^10) = .58

As you can see, my approach allows you to withstand more consecutive losers without having to use high leverage. Consider this:

Beginning lot * (mFactor ^ consecutive losses) = lot size needed on next trade

If we have 20 consecutive losses then:

.01 * (1.5^20) = 33.25 lots

What if we decrease the mFactor and keep consecutive losses at 10?

.01 * (1.4^10) = .29

What if we keep the mFactor at 1.4 and increase consecutive losses to 20?

.01 * (1.4^20) = 8.37 lots

With this, we have many ways we can manage our leverage and risk. I think that Monte Carlo Simulations can help us determine what our maximum consecutive losses would be and help us determine the best settings once we do some testing.