Tips for Traders | 10/11/2007

Risk Reward Ratio:

The Gear That Makes the Profit Engine Run

Who makes more money, day after day: a trader that takes a loss on two out of every three trades he takes or a trader that makes money on eight out of every ten trades he makes? The answer is obvious, right?

Or is it? Before you read any further, let me give a warning: I am about to talk about the mechanics of becoming a profitable trader. And when most traders start to think about what's going on behind the actual trading, their eyes glaze over and they quickly start to lose interest. If you aren't interested in knowing about simple things that can radically improve your chances of being a long term profitable trader, stop reading now. But if you really do want to know more about one of the most important tools in a successful trader's tool box, read on.

Most traders think about their winning trades and their thoughts end there. But in the harsh light of day, a trader's winning trades are far less than half the story. If a trader makes 100 trades and 80 of them are winners but the average winning trade is $100 per contract and the average losing trade is $800 per contract, he or she is in real trouble! Let's do the math: this trader will make $8,000 [80 X $100] on their winning trades. But on the small minority of their winning trades, they'll lose $16,000 [20 X $$800]. And of course, all traders pay commissions on winners and losers. So the truth is even worse: this particular trader would have made winning trades 80 percent of the time and net lost $8,500 for these 100 trades!

When I teach about risk reward ratios in seminars, some traders initially fight this concept and argue that the high per trade loss of the trader in the example above might have been due to a one time event, an unusual loss caused by an event like the stock market collapse following the 9/11 bombings in the United States. But the sad truth is that if I had the ability to open 1000 monthly trading statements from 1000 traders selected at random by the National Futures Association and show them to you, more than 90 percent of those statements would show losing months. Most people would guess that the losing statements contained mostly losing trades. But if we were able to dig deep into the statistics of the trades, we'd generally find that the most common cause for the losing months was the make up of winning trades as they compared to losing trades: losing traders have poor risk reward ratios and generally don't have a clue that they are on the road to ruin.

Let's look at an example of a trader that loses on two out every three trades, yet makes money month after month. How is that possible? This second trader makes 100 trades and only 33 of them are winners but the average winning trade is $500 per contract and the average losing trade is $200 per contract. So even though the second trader might have a more difficult emotional ride [because they are only winning 1/3 of the time they take a trade], at the end of the month they'd have money in their pocket! Let's do the math: this trader will lose $13,332 [66.66 X $200] on their losing trades. But on the small minority of their winning trades, they'll win $16,665 [33.33 X $500]. And again, they pay commissions on winners and losers. This particular trader would have made winning trades only 33.33 percent of the time, yet they would have net made $2,833 for these 100 trades!

Here's a table comparing a set of a 100 trades from three traders with three very different risk reward ratios:

	Trader A Wins 80 PCT		Trader B Wins 33 PCT		Trader C Wins 65 PCT	
	Winners	Losers	Winners	Losers	Winners	Losers
Number of Trades	80	20	33.33	66.66	65	35
$ Win or Loss Per Contract	$ 100	$ (800)	$ 500	$ (200)	$ 300	$ (150)
Risk Reward Ratio		0.13		2.50		2.00
Commission per Contract	$ (5)	$ (5)	$ (5)	$ (5)	$ (5)	$ (5)
Total Commissions	$ (400)	$ (100)	$ (167)	$ (333)	$ (325)	$ (175)
Total Gross Profit or Loss	$ 8,000	$ (16,000)	$ 16,665	$ (13,332)	$ 19,500	$ (5,250)
Gross P&L Less Commsions	$ 7,600	$ (16,100)	$ 16,498	$ (13,665)	$ 19,175	$ (5,425)
Total Net Profit or Loss		$ (8,500)		$ 2,833		$ 13,750

The first thing to note is that as a trader, you can have a losing percentage less than 50 percent and make money trading, as long as your risk reward ratio is large enough to overcome the trading style you have embraced: more losers than winners. That simply means your winning trades have to be larger than your losers by a wide enough margin to account for your winning percentage. Many system traders have a win/loss ratio that is less than 50 percent and yet if they have a solid system and follow their system day after day, they end up net winners at the end of the month. It's not always easy to take that next trade when you know you lose 2 out of every 3 times you take a trade, but if the right risk reward ratio has been 'built' into the system or methodology, a disciplined trader will take the next trade and the next trade and the next and at the end of the month, the statement will show that following the plan pays off by delivering a net winning month.

I haven't yet mentioned the most important part of risk reward ratios: they need to be calculated, planned and embraced before any trading begins. As a trader, if you don't have a trading plan, you are trying to steer a ship without a compass in the middle of the dark stormy ocean. And the National Futures Association statistics would say that you are generally about to run your ship into the rocks! Even if you have a solid trade entry methodology, you need to know the maximum amount of money per contract you are going to risk on that trade. And you need to have a realistic profit target for that trade planned out. From these two values, you can calculate your risk reward ratio on that trade-before you take the trade, of course. And going forward, you can examine the historic results of your trade entry methodology to get a feel for the winning percentage of trades you are likely to generate. Then by combining a realistic winning percentage with a realistic risk reward ratio, you'll immediately be able to project your expected trading results forward. And like using a compass and map to steer a ship, you'll immediately see if you are headed for the rocks or headed safely towards the harbor.

Remember: before you trade, you need to find a methodology that fits your personality-one that you are comfortable with and have researched, paper traded and decided is the methodology you will use to manage your capital. Then you need to have a trade plan. And one of the key components in this trade plan has to be what risk reward ratio you realistically expect to see when you analyze your trades at the end of each month.

The third trader in the table gives you a glimpse of what my own personal trading plan statistics look like on each 100 trades. My long term minimum acceptable risk reward ratio is 2:1. That means that for every dollar I risk, I expect to make at least two dollars. When I look at a potential trade, I don't even consider taking trades that have a realistic risk reward ratio of less than 2:1. In actual trading, my long term risk reward ratio hovers around three and a half dollars made for every dollar risked-but I use a 2:1 risk reward ratio in my trading plan because I always want to use a conservative measure. My win to loss percentage over my 30 plus years of trading is right around 65 percent winning trades to 35 percent losing trades. I am much more emotionally comfortable trading a style that has more winners than losers. You can see that a trading plan built upon these parameters will be extremely profitable. But to get to these results on a regular basis, you have to start out with a sound trading plan and methodology. Trading is so much more than looking at a chart and deciding 'now' is a good time to buy or sell. Don't put yourself in that position. Do your homework and learn about the tools used behind the scenes that can help make you a long term profitable trader.

If you would like an excel spreadsheet that calculates risk reward ratios for you, just drop me an email!

I wish you all good trading.

Best,

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