Introduction to Position Sizing™: The Secrets of the Masters Trading Game
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Background:

People are always looking for the "real" secrets of trading success, but their mental biases always have them looking in the wrong places and at the wrong things. Consequently, they search for magical trading systems with 75% accuracy or better or for great entry systems that they think will help them pick the right stock. Picking the right stock has nothing to do with success and neither does the accuracy of your stock picking.

You might be saying, "How can you say that?" Well, practically all Market Wizards agree that the key ingredients to your success are (1) the golden rule of trading - "cut your losses short and let your profits run;" (2) position sizing™ or that part of your trading system that tells you how much; and (3) the discipline to do both. When you think about the golden rule of trading, it basically describes exits - how you abort losses and ride winners. When you think about position sizing™, it basically controls how much you risk on any given trade.

I've designed Position Sizing™: The Secrets of the Masters Trading Game to help you learn the secrets to trading success before you play the markets. This game totally de-emphasizes entry or "stock picking" and instead requires that you focus on the most important aspects of trading - position sizing™ and letting your profits run. Our game has ten levels that get progressively more difficult to master. However, once you've mastered these principles, you'll know you've mastered some of the key skills to trading success.

To complete this game, you must master four key principles. These principles include (1) understanding the importance of R-multiples; (2) understanding the difference between expectancy and probability; (3) learning how to let profits run without letting them escape; and (4) using position sizing™ to make sure you have a low-risk trade. The Position Sizing™: The Secrets of the Masters Trading Game is designed to drive these principles home by giving you the experience of making (or losing) money in a game environment where losing is safer.

R-Multiples: First, you must understand the principle of R-multiples. R stands for risk, the risk you take on any trade when you enter the market. It reflects that point at which you plan to get out in order to preserve your capital. For example, if you buy a stock at $50 and you plan to get out if it drops to $47 or below, then your R value in this trade is $3.00 (i.e., $50 minus $47 = $3.00).

You want your losses to be small (i.e., an R-multiple of one or less) and your profits to be large R-multiples (2 or more). Losses can be bigger than 1R, when the market gaps against you and goes through your "get me out" point. Then can also be bigger than 1R when you make a psychological mistake and fail to get out when your stop point is reached. Excessive costs (commissions and slippage) can also result in big losing R-multiples.

This game is not necessarily like the movement of various stocks in the market. Instead, it is like running a trading system that has certain characteristics.

When you let your profits run, then you want your profits to be much bigger than 1R. For example, if R is $3 (as it was in our example above), then a $15 profit is a 5R profit. Now suppose you have a trading system in which you are right 25% of the time. When you win, you make 5R (i.e., in our example $15). When you lose, you lose 1R or $3. In our example with your system that is right one time (i.e., a $15 gain) for every three losses of $3 each (i.e., a total of $9 in losses), you still make a profit of $6. Imagine that! You are right 25% of the time and you still make money. That's why the principle of cutting your losses short (i.e., so you will have small R-multiple losses) and letting your profits run (i.e., so you will have big R-multiple gains) is so important. You still make money, even when you only make money on 25% of your trades.

The first level of Position Sizing™: The Secrets of the Masters Trading Game teaches you position sizing™ and the importance of large R-multiples. What you win or lose will be expressed as R-multiples and these values are described in the level instructions for each level and are also viewable in the statistics window while playing the simulation. Thus, a loss of 1 times what you risk is a 1R loss. A loss of 5 times what you risk is a 5R loss. Similarly, a gain of 1 times what you risk is a 1R gain. A gain of 10 times what you risk is a 10R gain.

In level one, for example, sixty percent of your trades (on the average) will be winners. Most of them (55% of all trades on the average) will be 1R gains. Thus, on 55% of your trades, you'll win whatever you risk. If you risk $1,000, then you will win $1,000 on a 1R gain. In level one, 5% of all trades will be 10R gains. In other words, if you risk $1,000 when one of these trades come along, you'll make ten times what you risked or $10,000. It's simple and easy. However, 35% of your trades in level one will be 1R losers and 5% of your trades will be 5R losers. Hopefully, you'll get a chance to learn the psychological agony of having a 5-R trade go against you in this level.

Notice how level one has probability on your side (60% winners) and the big R-multiple winners as well. That is, you have the potential of a 10-R winner in your favor. That won't be the case in the future levels. As a result, it brings up our next topic - expectancy.

Expectancy Versus Probability: Expectancy is a mathematical formula that tells you how much you will win on the average per dollar risked. It takes into account both the

probability of winning (or losing) and the size of the R-multiples. Casino gambling games are all negative expectancy games - you cannot make money in the long run unless you can do something to change the odds. In trading, you must play a different game from gambling. You must have a positive expectancy game on your side in order to make money in the long run.

Most people make a mistake by looking for games (or trading systems) that make them right. However, such games can have a negative expectancy (meaning that you'll lose money overall) if some of the losers have large R-multiples. More importantly, some of the best trading ideas have large R-multiples in your favor, but only make money 25-40% of the time.

Let's look at an example. Suppose you buy a stock and plan to get out when it drops against you by a dollar. For example, if you buy a $50 stock, you'll get out when it drops to $49. However, when you are right you expect that stock to move 30%. In the case of our $50 stock, a 30% move is an additional $15. Now think about this situation. When you are wrong, you lose one dollar per share!   When you are right, you make $15 per share. What if you were only right 30% of the time - you make money in three of ten trades. Thus, in ten trades you'd make $15 per share an average of three times. Your total gain would be $45 per share. In the same ten trades, you'd lose $1 per share on the average seven times. Your total loss would be $7 per share. Thus, over the ten trades you'd end up making $38 per share - even though you were only right 30% of the time. Large R-multiples in your favor are much more significant than "being right" in the equation for making money in the market. Remember that!

The reason you will have made so much money is because of your exits. Your exits gave you a trading method that had a very high positive expectancy. So let's explore this concept of expectancy a little more thoroughly.

Basically, when you calculate expectancy you will multiply each R-multiple (both negative and positive) by its probability of occurrence. You then sum the results (i.e., subtracting the values of the negative R-multiples) to get the total expectancy. All of the probabilities, of course, must add up to 100%. If not, it means that you have missed some. In the case of our stock example, you multiply 0.3 times 15, which is 4.5, and 0.7 times minus 1, which is minus 0.7. When you add 4.5 and minus 0.7, you have a total expectancy of 3.8. This means that you will average in gains, over many trades, 3.8 times your risk on each trade. You can also calculate expectancy by simply adding up the R-multiples (with winning being positive numbers and losing being negative numbers) and then dividing that sum by the total number of trades.

While the calculation of expectancy might seem complicated to some of you, we have good news. The game will calculate the expectancy for you. You can find the expectancy of each level in the statistics window. You'll also know what the probability is of each trade. Since the trades are random, you could easily get 10 losers in a row and that won't follow the expectancy. However, at the end of the level, you'll probably be pretty close to the expectancy of that level. It's just like real trading in that you won't

know whether the next trade will be a winner or not. However, to help you the game will also give you the expectancy of the trades to date as they are randomly picked. Thus, you will know how far the trades are off from the likely expectancy that was built into the game.

There is a critical aspect to expectancy that you must understand. Expectancy and probability are not necessarily the same. As I said earlier, you must have expectancy on your side, but you don't need to have probability on your side. Let's look at the simple stock market example given earlier. You win 30% of the time, but when you win it's a 5-R gain. You lose 70% of the time, but when you lose it's a 1-R. You only make money 30% of the time. Thus, the odds are against you. However, the game has a positive expectancy - giving you an average of 3.8 times your risk each trade.

Probability and expectancy will be separate in every level after level two. This is a more advanced trading concept for you to master. Beginning with level five, you'll even have the option of going with the probability (i.e., winning most of the time) or going with the expectancy. Hopefully, you'll learn how dangerous it is to bet against the expectancy, even though you get to win (or be right) more often.

Letting Your Profits Run: In the first six levels, getting a big R-multiple will be easy. If you hit one, you get the big win. If you hit a 10R multiple, you will win 10 times what you risk.

In the last four levels, you'll have to earn your big R-multiples by letting your profits run - just like in real trading. Losing trades will happen quickly, but winning trades will take time to develop. When a winning trade starts, it will probably just be a 1R win. You now have to wait another day (i.e., in the case of the game, trade) to determine if it will continue and how much of your gain you want to risk. When a winning streak starts, the chances of it continuing are good. However, you'll need to decide if you want to risk it all or just a portion of your profits.

For example, here's the start of a winning streak:

    Joe's Foods, Inc.   Risk $1,000   Won $1,000   Amount At Stake $2,000
Do you want to risk the entire $2,000 or not? Let's say you do and you again have a 1:1 winner. Here is your situation:

    Joe's Foods, Inc.   Risk $2,000   Won $2,000   Amount At Stake $4,000

You now have a 3R gain (i.e., your initial risk plus another 3R). Do you risk it all or just a portion of it? If you risk it all, you could allow a substantial gain to turn into a loss. Risking a portion of it is the equivalent to moving up your stop loss point in real trading. You decide to risk it all one more time. Fortunately, you win and your new situation is as follows:

Joe's Foods, Inc.   Risk $4,000 Won $4,000 Amount At Stake $8,000

You now have a 7R gain (i.e., your initial risk plus another 7R). If you risk it all, you'll have a huge profit if you win. On the other had, you could get a 3R or 4R loser. If that happens, your loss would be huge. As a result, you decide to cut your risk back to $2,000. You now wait for the next day's activities to occur. Again, you win:

Joe's Foods, Inc.   Risk $2,000 Won $2,000 Winnings $10,000

You can now risk any portion of that $10,000 or all of it. You already have a 9R profit on this trade, based on your original $1,000 risk. Do you now understand how letting your profits run can produce big R-multiple gains?   The seventh level you play will require that you master the secret of letting your profits run in order to make much money.

Using Position Sizing™ (i.e., how much you risk) so that you have a low risk idea: Imagine that you are playing the first level, which you will be doing shortly. You have $10,000 in equity. You know that sixty percent of your trades, on the average, will be winners. You also know that there is a 10R gain someplace in your future. You decide to risk $2,000 or 20% of your equity. The first trade occurs and it ends up being the 5R loser. You've lost five times your bet of $2,000 or $10,000. That was your entire stake and you are now bankrupt. Thus, you risked too much, despite having both expectancy and probability in your favor. You went bankrupt.

In any positive expectancy game, there is a percentage of your equity that will give you an optimum return. That optimum percentage will give you the maximum rate of return over time. It will also give terrible drawdowns. Lower percentages of risk will give you less return and smaller drawdowns. And if you risk too much, you risk bankruptcy.

Thus, my definition of a low risk idea is:

"an idea with a positive expectancy that is traded at a risk level that will allow you to survive in the short term, so that you can achieve the positive expectancy over the long term."

At each level, you will have to study the situation thoroughly to decide how much you want to risk on each trade. One of the main lessons you must master in order to profit will be the art of position sizing™. You can think about various strategies, such as playing the markets money or fixed ratio trading, and try them out without risking real money. In addition, you can purchase our reports on money management and position sizing™ and learn about ideas that you may never have considered. Call 919-852-3994 for more details.

The objective of the overall game is to safely complete all ten levels without going bankrupt, while making as much as you can.

Now go to the "File" menu and choose "New Simulation…" In the window that appears, make sure "Standard Game" is selected and then press the "OK" button. This will begin the simulation and display the instructions for the first level. The object of this level is to make at least 50% within 75 trials, allowing you to move to the next level. In each level, you'll automatically advance if you increase your equity by five times.

Much success and may you learn a great deal from this game!

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