

Why It's So Difficult for Most People to Make Money in the Markets

by Van K. Tharp, Ph.D.

Imagine playing a game for money in which marbles are drawn out of a bag and then replaced. 60% of the marbles are white. If one of the white marbles is drawn out, you win whatever you risked. The other 40% are blue. If one of the blue marbles is drawn, then you lose whatever you risked. This game has an expectancy of 20¢. That is, over a large number of trials, you'll make 20 cents for every dollar you risk. That means it's much better than any game you'll ever play in Las Vegas. But what percentage of the people who play it make money?

I have introduced this game numerous times in talks that I've given at seminars and conferences. Typically, we don't play for real money, but the winner (i.e., the person who ends up with the most "money" after 50 trials) is given a prize. The results at a typical talk are that one third of the audience ends up broke, another third of the audience loses money, and only a third of the audience makes money. And these results are not unique.

Ralph Vince, author of three books on money management, allowed 50 Ph.D.s who knew nothing about money management or statistics to play a game similar to the one described for 100 trials. They were not given any incentive for winning (which can induce stupid behavior). They were merely instructed to make as much money as they could playing the game. Guess how many of them made money? Only two of them, or four percent, made money!

Typically, except for going broke, there are as many different ending equities as there are people in the audience. Yet they all start out with the same amount of money and they all get the same trades (i.e., marbles). But in the end, there are so many different results. Why? Poor position sizing™ and an undisciplined psychology. If people have trouble making money with a 60% marble system, what are their chances of making money in the markets? Very slim!

There are three critical factors to winning: (1) a positive expectancy system, (2) position sizing, and (3) individual psychology. All three factors tend to be neglected by the average trader. To illustrate why that occurs

I'll discuss the psychological biases that people have with developing and using a positive expectancy system and position sizing, rather than treat psychology as a separate topic.

Traders Don't Understand What a Positive-Expectancy System Is

Most of us grow up being exposed to an educational system that brainwashes us with the idea that you have to get 94–100% correct to be excellent. And, if you can't get at least 70% correct, you're a failure. Mistakes are severely punished in the school system by ridicule and poor grades. Yet it is only through mistakes that we learn.

Contrast that with the real world in which a .300 hitter in baseball gets paid millions. In fact, in the everyday world few people are close to perfect and most of us who do well are probably right less than half the time. Indeed, people have made millions on trading systems with reliabilities around 30–40%.

In *The New Market Wizards* by Jack Schwager, William Eckhardt says that the factor that most undermines the behavior of the average trader is the overwhelming need to be right about the current trade. This one factor undoes most of us when we attempt to challenge the markets.

Because of that factor, people are constantly looking for high-probability trading systems that make money 70% of the time or more. To find such systems, they are constantly looking for entry systems that allow them to be right. If someone teaches such high-probability entry systems at seminars, he or she attracts thousands of eager followers. But you'll hear very little on the subject of exits and position sizing in such a talk, because people think the secret lies in the entries.

Unfortunately, if you really examine these high-probability systems, you'll notice the following: (1) the presentations go over well because they are illustrated with numerous best-case examples, (2) exits are hardly mentioned except to state that you must have a trailing stop, and (3) if you put such systems to the test, the expectancy is not very good because the average losses are bigger than the average gains.

We Are Conservative with Profits and Risky with Losses

The systems that do perform well tend to be systems with a reliability of around 40% and which have average gains that are much bigger than the average losses. Understanding and properly applying protective

stops and profit-taking exits is important to developing such systems. However, these exits are very difficult for the average person who tends to be risky when he or she is behind and conservative when he or she is ahead.

Let's look at an example. Which would you prefer: (a) a sure loss of \$900, or (b) a 95% chance of a \$1,000 loss plus a five percent chance of no loss at all? Select either (a) or (b).

Now let's try one more. Which would you prefer: (a) a sure gain of \$900, or (b) a 95% chance of a \$1,000 gain plus a five percent chance of no gain at all? Once again, select either (a) or (b).

Most people would take the gamble in the first problem. They would take the 95% chance of a \$1,000 loss plus the 5% chance of no loss at all. Is that what you picked? Let's take a look at how that works out. If you multiply \$1,000 times 0.95, you get an expectancy of \$950. That means you've elected a worse expectancy, a loss of \$950, just for the remote possibility of getting back to even. Yet what is the first part of the golden rule of trading? "Cut your losses short." What did you pick in the second problem? Most people pick the sure gain of \$900. Yet if you look at the gamble, item (b), it gives you an expectancy of \$950 (\$1,000 times 0.95). But that goes against the way most people think. They'd rather take the sure profit than be risky when they are ahead. Yet what is the rest of the golden rule of trading? "Let your profits run."

Great trading systems with a high expectancy are formed with the proper use of exits. But when the proper use of exits goes against the grain of how we tend to think, it is very difficult to develop a good system.

People Totally Neglect Position Sizing

Position sizing is that part of your trading approach that tells you "how much." It's not sexy. It doesn't seem to give you control over the market, as your entry method does. It simply tells you how much to risk on a given trade. You've already learned from the marble game that many people can lose money in a 60% system, just from very poor position sizing. And the great variation in the performance of people in that game is entirely due to position sizing—how much they risk. And it's also the greatest contributor to how much you'll make in the market. So why is the appropriate use of position sizing such a problem?

Problem #1: The Gambler's Fallacy

How can you lose money in a 60% system with a one-to-one payoff? In a 60% system you are likely to have seven or eight losses in a row during 1,000 trials. But you could easily have five losses in a row in such a system during a 50-trial run.

Let's say that we are about to start such a streak and that you've adopted a strategy of betting 10% of your equity. For the sake of simplicity, let's say that your stake when the losing streak starts is \$1,000. You begin by betting 10%, or \$100, and you hit the first loss. You now have \$900 left. You decide to bet \$90 and you have another loss. You now have \$810 left. After the third loss, you decide to bet \$81 and you have your third consecutive loss. Now you have \$719 left. At this point, your thought process might be the following: "I've had three losses in a row and I'm really due for a win now. After all, this is a 60% system. I think I'll risk \$300 on this one." Now you get loss number four and you only have \$419 left. You feel desperate. You are down almost 60% in just four trials. You think, "I have to have a winner now," and you decide to risk another \$300. Loss number five comes up and you are down to \$119. You now have to make nearly 900% just to make up for the losses on the last five trials, and your chances of doing so are very slim.

Some of you might be thinking that you would have waited until the five losses in a row and then bet \$300. If that's your thought process, then you have the same problem. It's called the gambler's fallacy. Your actual chances of losing on any given draw are 40%. They have nothing to do with what has happened in the past. When you embrace the gambler's fallacy and bet \$300, you'll have the sixth straight loss.

Problem #2: Position Sizing Is Complex

The science of position sizing is every bit as complex as the art of entry into the market. Furthermore, since few people are interested in (or clearly understand) position sizing, the developers of system-related software have neglected it or ignored it entirely. As a result, if you want to practice sound position sizing in today's world of computers, you must do it yourself on a spreadsheet.

From my research and other sources, I know how a number of "market wizard" traders function. They have good systems with a strong positive expectancy. But those systems are not much different from the kind of systems that the average person can get. The difference between making a fortune in the markets, as most of them have done, and average performance is simply one of position sizing. Great traders apply great posi-

tion sizing to good systems and have the discipline to carry it out. Just read *Market Wizards*, also by Jack Schwager. Every person interviewed talks about the importance of position sizing.

Years ago, I spoke at a Market Wizards conference in San Francisco. One of the speakers, Ed Seykota, emphasized position sizing in his talk. He suggested to people that they calculate payoff vectors for their system and develop position sizing appropriate to those payoff vectors. By payoff vectors, he meant what percentage of your trades are 5:1 winners, etc. When someone asked him, "How do you develop position sizing appropriate to those vectors?" his response was to point to the side of his head and say, "Think."

Most traders find that the simplest solution to position sizing is simply to trade one contract per so much equity. While this is one solution, for traders with small amounts of capital (i.e., most traders) it amounts to no position sizing because it means that they effectively have to double their equity before they can increase their risk.

Problem #3: Most Traders Do Not Have Enough Capital

In that same conference, Ed Seykota made the statement that anyone risking more than three percent of his or her equity on a given trade was probably a "gunslinger." Now, your risk on a given trade is the amount of exposure you have on that trade—the difference between your entry price and your stop price. For example, if you open a gold position at \$400 with a stop at \$390, then your \$10 stop represents a risk of \$1,000. If you have an account of \$25,000, then your risk for one contract is four percent. You'd be called a gunslinger.

Most traders enter the markets with accounts of \$10,000 or less. They trade just about everything and all of their trades are very risky because their account size is too small. Sure, you can trade some agricultural markets with a \$10,000 account. In fact, you can trade a lot of other markets if your stops are typically tight and your system is designed for tight stops. But most people who enter the markets simply don't have the capital to do what they are trying to do.

Consequently, they typically don't think about the most important factor in trading, the issue of how much, because they are already trading too much. If they do survive in the market, as their account begins to grow they start thinking about the simplest form of position sizing. "I now have \$20,000 in my account. Perhaps I should trade *two* contracts."

What's the Solution?

I've presented various problems to illustrate why it's so difficult for the average trader to make money in the markets. The major issues involved were (1) developing a high-expectancy system and (2) position sizing. One would not normally consider these psychological issues but rather issues of approach. Yet both of these issues stem from major psychological biases that shape our thinking.

The first step in overcoming these problems is recognizing that they exist. For example, once you recognize that a key issue in successful trading is having a high-expectancy system, rather than a highly reliable one, then you've come a long way in your search for the "Holy Grail." You can start looking for exits that give you a high expectancy rather than entry techniques that increase the reliability of your system. IITM has all sorts of products to help you in your search.

Secondly, when you have a high-expectancy system that gives you many trades, you'll begin to realize that the key to achieving that expectancy is position sizing. If you know what you want to achieve as a trader (e.g., a high reward-to-risk ratio, small drawdowns, or a very high annual rate of return, etc.), you can use position sizing to design an approach that will achieve those objectives.

My "Special Report on Money Management" details three different equity models and nine different position sizing models giving a total of 27 different models. The report also touches on creative position sizing, showing just how much is possible in this area. The path to the Holy Grail is applying position sizing to a high-expectancy system and controlling yourself. When you realize that deep inside, then you've taken a giant leap forward in your personal evolution as a trader.

Last, but not least, you need the discipline to carry out your approach. Discipline is a crucial factor in trading success that is often overlooked.

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