

Self-Screening for Aspiring Traders

A.E. Brockwell

June 8, 2010

If you are reading this, it is because you are considering taking up trading as a professional or semi-professional activity. That is, you are considering the possibility of making money for yourself by participating in the markets. Having spent time in a hedge fund as well as day-trading for myself, I have enough experience to provide a few tips, and in this document I'll begin by listing a number of things that could cause you to fail as a trader. The vast majority of people would not make good traders, and that includes a significant number of people who are already practicing traders in the industry. You could well ask what makes me worthy of giving this advice. ¹ The short answer is that there is no reason you should listen to me. In fact one of the important pieces of advice I can give is that in deciding how to invest money or make trades, you should listen to no one but yourself, and before you even do that you need to make sure that you can be honest with yourself (most people are not).

Having said that, let's begin.

1 Honesty with Yourself

The first thing you need to know is whether you are honest with yourself. As a trader you will make mistakes, and you will make losing trades. These two things are entirely different from each other. Losing money on a trade does not necessarily mean that you were

¹Many people judge by past trading history. In the absence of other information, this is not a terrible way to assess skills, although it leaves a lot to be desired. My own net log-return with a hedge fund was close to zero. I could make excuses for this but a good trader does not make excuses, and I don't want to begin this document by setting a bad example. My net return in day-trading has been around 40% over a year, but I should disclose that the amount of money invested was small. In total I have placed thousands of trades. So do these numbers count for anything? Well I think they do, but this is certainly a debatable claim. In any case, the numbers in themselves are nowhere near as important as the knowledge I gained during the course of this trading experience.

mistaken in placing the trade. To trade successfully you will need to come to grips with this difference, and if you are not honest with yourself about outcomes, about the process that led to outcomes, or about your own emotional state, then you will be unable to learn how to do this.

(Note that honesty with other people is arguably less important for a trader than honesty with oneself. However, for me the two have to go hand-in-hand. I think you would be pretty internally conflicted if you were honest with yourself and dishonest with others.)

To get a sense of how honest you are with yourself, consider (at least) the following questions.

1. *Are you realistic about your strengths and weaknesses?*

Think about this carefully. Draw up a list of strengths and weaknesses that you think you exhibit relative to the general population. If you can think of no weaknesses then you are totally dishonest with yourself and should not begin trading.

Next you should re-evaluate your strengths relative not to the general population, but relative to a much higher bar - imagine for instance the top 5% of your high-school class. This is more representative of the kind of people you will be competing against if you trade in the markets.

2. *Are you good at everything you do?*

If the answer is yes, then you are delusional and should not begin trading. A decent trader should be able to look back critically on his/her own achievements, identify good and bad aspects, work out which parts were due to luck (or lack thereof) and take action to improve future performance.

3. *If you commit to something, might you change your mind about it later on?*

If the answer is no, then you do not have the ability to adapt that will be required to trade successfully. If you make a mistake or misunderstand something, you need to be able to acknowledge this and learn from it.

2 Why Do You Want to Trade?

Perhaps you are attracted to trading because you like the thrill of gambling, or because you see it as an easy and exciting way to make money. I would recommend that anyone with either of these attitudes avoids trading as a career.

It is important to set straight some misconceptions about the life of a trader.

A commonly held belief is that a trader learns when to buy something, when to sell something, and then simply hangs around a trading floor with an exciting job making easy money whenever these buy/sell opportunities arise. While it is true that a trader needs to learn when to buy and when to sell, the job will never be easy. There are at least a couple of reasons for this.

- It takes a lot of study. That is, traders must observe the market, think about why things happen, and constantly adapt to an ever-evolving set of circumstances. Novice traders often blame their losses on a “crazy” market, but the reality is that the market is *always* crazy. There is always something unusual going on that can have a dramatic effect on the value of positions that people are holding. For example, as I write this document right now, Europe is in the midst of a debt-scare crisis, triggered by fear over Greece’s ability to pay its bonds. BP (British Petroleum) is pumping many many thousands of barrels of oil every day into the Gulf of Mexico, and the Australian dollar has just plummeted in value (perhaps because of the European crisis). I could use any of these things as excuses for my trading losses in recent days, but there is no point in doing so unless my goal is to justify myself to others. A good trader is primarily interested in what things may affect the probability distribution of trade outcomes, not in what other people think. To keep track of these, the trader must keep an open mind at all times and be ready to learn and adapt. New approaches to trading will be required constantly as the markets evolve along with the rest of the world. For example, my response to these latest “crazy” events is simply to analyze my own trading systems and consider whether or not the intuition behind them could have been affected in a negative way. If so, I discard or adapt them. It is commonly said that to trade successfully, one must be a “life-long student of the markets”.
- It is not exciting. Or rather, if it is exciting, then you have a problem. The stereotypical trader is an excited energetic guy yelling on a trading floor. These types of people are portrayed in movies, but frankly I don’t know how these people could ever be successful traders. It’s possible that I’m missing something, but these guys generally have little if any emotional discipline, and lack of emotional discipline almost guarantees that a person will lose money when trading. Emotions, particularly fear and excitement, interact directly with a trader’s decision-making ability in a disastrous way. I’m not going to try to explain the myriad ways in which this happens, as there are plenty of books that do. But one wonderful irony of trading is that as you get better at it, making money by doing it gives you less and less enjoyment.

I suspect that most successful traders may be attracted initially by the promise of large salaries, but eventually are driven primarily by the intellectual and emotional challenges rather than the goal of making money. But this is only speculation.

If you see it as a difficult challenge to make money trading, you are prepared to fail, you are willing to become a life-long student of the markets, and you are willing to take complete and utter responsibility for outcomes by yourself, without blaming anyone or anything else for losses, then you may be in a position to succeed. Of course, you don't really need all of these characteristics to get started, but you will need to have them in the long-run in order to succeed.

3 Thinking in Terms of Probabilities

Previously I mentioned that there is a difference between losing money on a trade and placing a bad trade. If you are to trade successfully you will make many good trades that lose money. The key to understanding this lies in the fact that every trade is a bet, and in order to understand the quality of the bet you must be able to think in terms of probabilities. Incidentally, the same skill is required of good poker players. Arguably this is why you can find so many good poker players in the hedge fund industry (among other examples, take David Einhorn, who founded Greenlight Capital and also placed 18th in the 2006 World Series of poker).

To illustrate this, consider the following trades.

The first has payoff probabilities as follows. ("Value" is the profit that the trade yields.)

Trade A:	Value	Probability
	\$1.00	0.53
	-\$1.00	0.47

The second has payoff probabilities

Trade B:	Value	Probability
	\$1.00	0.49
	-\$1.00	0.51

The third has payoff probabilities

Trade C:	Value	Probability
	\$1.00	0.99
	-\$200.00	0.01

Which of these are good trades? It should hopefully be clear to you that Trade A is the only good trade. If not then you need to take a course in probability and statistics.

In technical terms, the key is that Trade A is the only one has payoff has a positive “expected value”. Trades B and C are bad in the long-term. They have negative expected payoffs By the law of averages, as you trade more and more, your average gain per trade will approach the expected value, and you will end up losing a lot of money.

However, not that even though Trade A is a good trade, if you repeat it many times, you will see strings of losses. This is where many people struggle. Even though the trade may be good, they stop trading after incurring several losses in a row because they think something must be going wrong (that is, that somehow the probability distribution of the outcomes has changed so that the expected profit is negative). While it is indeed possible that something is going wrong, it is also a natural by-product of the intrinsic randomness of the trade that you will see strings of losses in a row.

Now comes the interesting part.

As a trader, it is easy to find opportunities that are effectively the same as Trade B. This is approximately what happens if you just pick a stock without putting much thought into it, buy some, hold onto your position for a day or two, then sell. The reason that this trade has a negative expected payoff is that transaction costs will overwhelm the average gain over a short time period.

As a trader with a little more knowledge (a little knowledge can be a dangerous thing), it is easy to construct a trade that has a payoff like Trade C. You can do this by selling options.

Trade C is particularly interesting. It is perhaps the most dangerous trap for a novice trader/investor to fall into. If you carry out Trade C ten times in a row, then with high probability (about 0.904), every single result will be positive. Imagine doing this with real money. You would perhaps be excited about your achievement after those first ten trades. Indeed you might be so excited that you convinced friends to give you more money to invest in this trading exercise. You might increase the scale of the trade. And everything would be good until you took your first loss. The size of the first loss (which will happen eventually) will ensure that your portfolio is devastated.

The key to trading is to place many trades that have positive expected payoffs, like Trade A. The difficulty lies in two things:

1. working out how to make a trade with a positive expected payoff, and
2. differentiating in practice between trades of type A,B and C (as well as other possible payoff distributions).

These two topics merit at least a book each, so I won't begin discussion of them here.

But it's important to point out that you should be very careful of anyone offering to sell you

a solution to the first of these two items. Such “tested acclaimed” trading systems can be found all over the internet. Indeed you occasionally see them advertised on television. You need to ask yourself before spending anything on such a system, why the seller is selling it instead of using it for himself(/herself). The usual answer is that the seller tried and failed to come up with a good trading system, and is now trying to salvage money by selling what he/she created.

4 Summary

As outlined in the previous three sections, if you

- are not honest with yourself,
- are looking for easy money, or
- cannot think in terms of probabilities,

then I strongly recommend that you avoid trading.

This document is deliberately constructed to be a screening document. That is, it is intended to save you from yourself if you have some of the more common features of traders who do not succeed. This document is *not* intended to help you if you have already decided that you are going to trade professionally. For that, perhaps I’ll write another document some day ...