## What Do You Expect?

# How You Can be Right Less than 50\% of the time And Profit From It Now 



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## What Do You Expect?

About eight years ago, I was listening to some music as I prepared for my trading day. I put my CD player on "shuffle" and with the music in the background, went back to my research on optimal entry strategies.

I was looking for a way to determine entries that would result in $75 \%$ to $85 \%$ winning trades. But right in the middle of testing a particular technique, I heard Kenny Rogers singing "You got to know when to hold 'em, know when to fold 'em, know when to walk away, know when to run..."

The lyrics captured my attention and my thoughts shot forward, ricocheting into that old trading axiom, "Cut your losses short and let your profits run." In that moment I experienced an almost instant paradigm shift, one that I'll share with you in a minute.

## The Need to Be Right

The sad fact is that $95 \%$ of traders-the $95 \%$ who will no longer be trading six months from nowhave a need to be right on every trade.

As a consequence, they spend an inordinate amount of time anguishing over high-probability entries.
"High probability" entries give the illusion of control over the entire trade.
The truth is, entry may well be the only part of a trade they control because they can dictate the conditions the market must meet to trigger an entry. However, once they've entered the market, control goes out the window. The market will go where it wants to go, and doesn't care what's on their list of conditions for a favorable exit.

They are at the market's mercy and as a result, they commit one of two cardinal errors:

1. if the market moves in their favor, they exit early with a small gain, leaving a good deal of the profits on the table or
2. if the market moves against them, they stay in the trade hoping the market will turn, thus incurring a larger loss. In other words, they have no idea when to hold 'em and when to fold 'em.

This need to be right compels many traders to cut their profits short and let their losses run. In fact, it is so difficult for them to accept losing trades that they won't exit a position at a relatively small loss, even when they know they are wrong. And what's worse, after a string of losses, they blame their poor results on the system they are using. This is like throwing a rock through a window, and then blaming the rock for the damage.

## The Worst Kept Secret to Successful Trading

What I'm about to share with you is something all traders have heard at one time or another, and probably more than once. Unfortunately, very few actually get it.

Here it is: You must develop the discipline to accept total responsibility for all of your trading decisions. No more blaming the rock; no more blaming the system you are using; no more blaming the market or your broker or who- or whatever else represents a likely target.

As you commit to this one principle and fully embrace it, you will empower yourself to become a successful trader. You will not only recognize the role you play in your gains and losses, but you'll also recognize and correct your trading mistakes.

## Paradigm Shift

Back to the paradigm shift. As "know when to hold 'em, know when to fold 'em..." ran through my brain, I realized that knowing exactly when to get out of the market was far more important than deciding where to enter.

## In other words, I needed a way to know ahead of time:

1. what my initial stop loss would be,
2. what the subsequent stop loss values should be
3. when to take profit, and
4. when to let my profits run.

I immediately changed the focus of my research, which eventually led me to the concept of "expectancy" as outlined in Dr. Van K. Tharp's Trade Your Way To Financial Freedom (McGraw-Hill, 1999).

## What is Expectancy?

Tharp defines a system's expectancy as "...how much you can expect to make on the average (over a number of trades) per dollar risked."

But it's more than that. Expectancy provides an objective way to evaluate any trading system. With it, you can compare performance "apples to apples." To determine a system's expectancy, you have to take several variables into account:

1) the system's reliability, usually expressed as the percentage of profitable trades;
2) the relative size of profits compared to losses
3) the cost of making the trade (in the forex, it's the dollar value of the pip spread)
4) how often you trade

Tharp developed a formula into which you can plug the data for these four variables. The result is an expectancy number-either positive or negative-that Tharp calls the R-factor.

Throughout this report, R-factor and expectancy will be used interchangeably.
A POSITIVE R-FACTOR lets you know how much money you can expect the system to produce over time for each dollar risked.

## A NEGATIVE R-FACTOR tells you how much loss you can expect the system to generate for every dollar risked.

The bottom line: the higher the positive expectancy, the potentially better the system is.
According to Tharp, however, these four variables are affected by two others:

1. the amount of trading capital you have and
2. the number of lots you trade at one time (position sizing).

All six of these variables are interrelated; they are all important aspects of expectancy, and all of them will influence your success as a trader.

What Does Expectancy Have to Do with Forex Profit Pro?
To illustrate just how powerful the concept of expectancy is, l'm going to show you how each of Tharp's six key elements mentioned above relates directly to trading with Forex Profit Pro (FXPP).

In the process, we'll actually do an evaluation of FXPP.
NOTE: The discussion that follows is based on hypothetical trading results. Therefore, please read the following disclaimer:

THE HYPOTHETICAL PERFORMANCE RESULTS DEPICTED IN THE ILLUSTRATIONS CONTAINED IN THIS REPORT HAVE MANY INHERENT LIMITATIONS, SOME OF WHICH ARE DESCRIBED BELOW. NO REPRESENTATION IS BEING MADE THAT ANY ACCOUNT WILL OR IS LIKELY TO ACHIEVE PROFITS OR LOSSES SIMILAR TO THOSE SHOWN. IN FACT, THERE ARE FREQUENTLY SHARP DIFFERENCES BETWEEN HYPOTHETICAL PERFORMANCE RESULTS AND THE ACTUAL RESULTS SUBSEQUENTLY ACHIEVED BY ANY PARTICULAR TRADING PROGRAM. ONE OF THE LIMITATIONS OF HYPOTHETICAL PERFORMANCE RESULTS IS THAT THEY ARE GENERALLY PREPARED WITH THE BENEFIT OF HINDSIGHT. IN ADDITION, HYPOTHETICAL TRADING DOES NOT INVOLVE FINANCIAL RISK, AND NO HYPOTHETICAL TRADING RECORD CAN COMPLETELY ACCOUNT FOR THE IMPACT OF FINANCIAL RISK IN ACTUAL TRADING. FOR EXAMPLE, THE ABILITY TO WITHSTAND LOSSES OR ADHERE TO A PARTICULAR TRADING PROGRAM IN SPITE OF TRADING LOSSES ARE MATERIAL POINTS WHICH CAN ALSO ADVERSELY AFFECT ACTUAL TRADING RESULTS. THERE ARE NUMEROUS OTHER FACTORS RELATED TO THE MARKETS IN GENERAL OR TO THE IMPLEMENTATION OF ANY SPECIFIC TRADING PROGRAM WHICH CANNOT BE FULLY ACCOUNTED FOR IN THE PREPARATION OF HYPOTHETICAL PERFORMANCE RESULTS AND ALL OF WHICH CAN ADVERSELY AFFECT ACTUAL TRADING RESULTS.

Key Element 1: FXPP's Reliability
In a nutshell, a system's reliability is the number of times in one hundred that it generates a winning trade.

Or, as Tharp would say, it represents the percentage of time you get to be right.
Now, I hate to beat a dead horse, but many of the world's most successful traders are "right" less than $50 \%$ of the time. This means that the combined money they make when they are "right" far exceeds the money they lose when they are "wrong." If it were otherwise, they wouldn't be trading. Nobody would.

Furthermore, they know exactly what they can expect to make, on average, from the system they are using. They accept loss as part of the business, and they know that by following a disciplined approach to trading, they will make money over the long run.

Illustration 1 below shows FXPP's reliability over 89 simulated trades with GBP/USD between October 1, 2006 and March 31, 2007. You can see that the system was "right" 64\% of the time.

Illustration 1: FXPP System Reliability (GBP/USD between 10/1/06 and 3/31/07)

|  |  |
| :---: | :---: |
| Total Trades | 89 |
| Total Wins | 57 |
| Reliability | 0.640 |
|  |  |

If reliability were the only criterion for judging a system's value, $64 \%$ might not make the list of high system performance. For example, suppose you saw the reliability table depicted in Illustration 2, where you get to be right $90 \%$ of the time? Wouldn't you be tempted to go out and buy it?

## Illustration 2: Fictitious System Reliability

|  |  |
| :---: | :---: |
| Total Trades | 89 |
| Total Wins | 80 |
| Reliability | $\mathbf{0 . 9 0 0}$ |
|  |  |

Countless traders have made and paid for that mistake many times over.
That's where the next key element comes into play.

Key Element 2: Relative Size of Gains Compared to Losses Produced by FXPP
Illustration 3 integrates reliability with the system's simulated gains and losses. As you can see, the total dollars won far outstrip the total dollars lost by about four to one.

In other words, FXPP helps you know when to hold 'em and know when to fold 'em. That is outstanding performance for a system that is right only $64 \%$ of the time when trading GBP/USD. Imagine how it would feel to earn $\$ 313$ on average, every time you trade.

Illustration 3: Comparison of Relative Size of FXPP's Gains and Losses

|  |  |  |  |
| :---: | :---: | ---: | ---: |
| Total Trades | $\mathbf{8 9}$ | \$ Won/Lost | \$ Average |
| Total Wins | $\mathbf{5 7}$ | $\$ 36,890$ | $\$ 647$ |
| Total Losses | 32 | $-\$ 9,060$ | $-\$ 283$ |
|  | Total | $\$ 27,830$ | $\$ 313$ |

Let's go to Illustration 4 and look at a comparison of the Fictitious System's gains and losses.
Remember, nine times out of ten, this system makes money. However, the one time in ten that the system loses, it loses BIG. This illustrates why a high win rate can be deceptive. Basically, every time it trades, the system loses an average of $\$ 2.00$.

Illustration 4: Comparison of Relative Size of Fictitious System's Gains and Losses

|  |  |  |  |
| :---: | :---: | ---: | ---: |
| Total Trades | $\mathbf{8 9}$ | \$ Won/Lost | \$ Average |
| Total Wins | $\mathbf{8 0}$ | $\$ 8,160$ | $\$ 102$ |
| Total Losses | $\mathbf{9}$ | $-\$ 8,343$ | $-\$ 927$ |
|  | Total | $-\$ 183$ | $-\$ 2$ |

l'd rather be right 64\% of the time and average $\$ 313$ per trade than be right $90 \%$ of the time and lose an average of $\$ 2.00$ per trade, wouldn't you?

## Calculating Expectancy-The R-Factor

Going back to Illustration 3, we find that FXPP grossed \$27,830 over 89 trades during the 6-month period between 10/1/06 and $3 / 31 / 07$. This amounts to an average profit of $\$ 313$ per trade.

The minimum loss, which represents the minimum dollars risked during that period, averages about $\$ 101$. We'll round it down to $\$ 100$ for convenience.

Illustration 5 presents a probability matrix that places gains and losses into dollar ranges that are multiples of $\$ 100$, the minimum amount risked. But before we look at the matrix, let's look at its parts.

In the matrix, the Range column groups the trades according to dollars won or lost. The Number column tells us how many trades fell into a given range.

| Range | Number |
| :---: | :---: |
| $\$ 100-\$ 299$ | 20 |
| $\$ 300-\$ 599$ | 13 |
| $\$ 600-\$ 899$ | 11 |
| $\$ 900-\$ 1,199$ | 6 |
| $\$ 1,200$ | 1 |
| $\$ 1,800$ | 4 |
| $\$ 2,100$ | 1 |
| $\$ 2,700$ | 1 |
| Total | 57 |

The Payoff column lets us know how many times the minimum risk the range represents. For example, any gain or loss between $\$ 100$ and $\$ 299$ is considered to be 1 times the minimum risk, or a 1 to one payoff. Likewise, any gain or loss falling between $\$ 300$ and $\$ 599$ is considered to be 3 times the minimum risk, or a 3 to 1 payoff, and so on down the column.

| Range | Number | Payoff |  |
| :---: | :---: | :---: | :---: |
| $\$ 100-\$ 299$ | 20 | 1 to 1 |  |
| $\$ 300-\$ 599$ | 13 | 3 to 1 |  |
| $\$ 600-\$ 899$ | 11 | 6 to 1 |  |
| $\$ 900-\$ 1,199$ | 6 | 9 to 1 |  |
| $\$ 1,200$ | 1 | 12 to 1 |  |
| $\$ 1,800$ | 4 | 18 to 1 |  |
| $\$ 2,100$ | 1 | 21 to 1 |  |
| $\$ 2,700$ | 1 | 27 to 1 |  |
| Total | 57 |  |  |

The Probability column summarizes the percentage of trades in a given range. So, the percentage (or probability) of a winning trade being in the $\$ 100$ to $\$ 299$ range is 20 trades out of 89 , or 20/89= 22.5\%.

| Range | Number | Payoff | Probability |
| :---: | :---: | :---: | :---: |
| $\$ 100-\$ 299$ | 20 | 1 to 1 | $20 / 89=0.225$ |
| $\$ 300-\$ 599$ | 13 | 3 to 1 | $13 / 89=0.146$ |
| $\$ 600-\$ 899$ | 11 | 6 to 1 | $11 / 89=0.124$ |
| $\$ 900-\$ 1,199$ | 6 | 9 to 1 | $6 / 89=0.067$ |
| $\$ 1,200$ | 1 | 12 to 1 | $1 / 89=0.011$ |
| $\$ 1,800$ | 4 | 18 to 1 | $4 / 89=0.045$ |
| $\$ 2,100$ | 1 | 21 to 1 | $1 / 89=0.011$ |
| $\$ 2,700$ | 1 | 27 to 1 | $1 / 89=0.011$ |
| Total | 57 |  | $57 / 89=0.640$ |

The expected dollars gained or lost per dollar risked is represented by the Expectancy column.

You get the expectancy of a range by multiplying the payoff times the probability. In this case, with a payoff of 1 to 1 and a probability of .225 , you get $1^{*} 0.225=0.225$. Similarly, with a payoff of 3 to 1 , you get 3 * 0.146 , or 0.438 .

By multiplying all of the winning probabilities by their respective payoffs and then adding them together, you get a total positive expectancy of 3.481.

| Range | Number | Payoff | Probability | Expectancy |
| :---: | :---: | :---: | :---: | :---: |
| $\$ 100-\$ 299$ | 20 | 1 to 1 | $20 / 89=0.225$ | 0.225 |
| $\$ 300-\$ 599$ | 13 | 3 to 1 | $13 / 89=0.146$ | 0.438 |
| $\$ 600-\$ 899$ | 11 | 6 to 1 | $11 / 89=0.124$ | 0.744 |
| $\$ 900-\$ 1,199$ | 6 | 9 to 1 | $6 / 89=0.067$ | 0.603 |
| $\$ 1,200$ | 1 | 12 to 1 | $1 / 89=0.011$ | 0.133 |
| $\$ 1,800$ | 4 | 18 to 1 | $4 / 89=0.045$ | 0.810 |
| $\$ 2,100$ | 1 | 21 to 1 | $1 / 89=0.011$ | 0.231 |
| $\$ 2,700$ | 1 | 27 to 1 | $1 / 89=0.011$ | 0.297 |
| Total | 57 | um Research | $57 / 89=0.640$ | 3.481 |

Doing the same thing with the losses gives us a total negative expectancy of -.819 . By adding the two expectancies ( $3.481+(-0.819)$ ), we get an overall positive expectancy of 2.662 .

In other words, for each dollar risked, we can expect to gain $\$ 2.662$.

## Illustration 5: FXPP's GBP/USD Trades as a Probability Matrix

| GAINS |  |  | 89 Trades GBP/USD |  |  |  | LOSSES |  | \$101 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Wins | 57 | Reliability | 0.64 |  |  | Total Losses | 32 | Min Loss |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Range | Number | Payoff | Probability | Expectancy |  | Range | Number | Payoff | Probability | Expectancy |
| \$100-\$299 | 20 | 1 to 1 | 20/89 $=0.225$ | 0.225 |  | \$100-\$299 | 16 | 1 to 1 | 16/89 = 0.180 | -0.180 |
| \$300-\$599 | 13 | 3 to 1 | 13/89 $=0.146$ | 0.438 |  | \$300-\$599 | 14 | 3 to 1 | 14/89 = 0.158 | -0.474 |
| \$600-\$899 | 11 | 6 to 1 | 11/89 = 0.124 | 0.744 |  | \$600-\$899 | 1 | 6 to 1 | 1/89 = 0.011 | -0.066 |
| \$900-\$1,199 | 6 | 9 to 1 | $6 / 89=0.067$ | 0.603 |  | \$900-\$1,199 | 1 | 9 to 1 | 1/89 = 0.011 | -0.099 |
| \$1,200 | 1 | 12 to 1 | 1/89 $=0.011$ | 0.133 |  | \$1,200 | 0 | 12 to 1 | 0 |  |
| \$1,800 | 4 | 18 to 1 | $4 / 89=0.045$ | 0.810 |  | \$1,800 | 0 | 18 to 1 | 0 |  |
| \$2,100 | 1 | 21 to 1 | $1 / 89=0.011$ | 0.231 |  | \$2,100 | 0 | 21 to 1 | 0 |  |
| \$2,700 | 1 | 27 to 1 | 1/89 = 0.011 | 0.297 |  | \$2,700 | 0 | 27 to 1 | 0 |  |
| Total | 57 |  | $57 / 89=0.640$ | 3.481 | 2.662 | Total | 32 |  | $32 / 89=.360$ | -0.819 |

Positive expectancy is what we're looking for, and a system that produces a positive expectancy of 2.66 is definitely worth using. According to Tharp, any system with a reliability factor over .50 and an expectancy of $\$ 0.50$ is a good one.

Now, let's take a look at how the next variable in the equation impacts our trading.

## Key Element 3: The Cost of Making a Trade

Whatever they say about not charging a commission for trading with them, Forex dealers are not in business to give any of us a free ride. Did you ever notice that when you get into a trade, you start off in the negative by the number of pips in the spread?

If the trade goes in your direction and you make a profit, the spread appears to be absorbed.
Nevertheless, you still had to overcome the spread.
On the other hand, if the trade moves against you, you're out your loss plus the spread.
Thus, if you are trading a 100 K lot of GBP/USD and the spread is 5 pips, you are down $\$ 50$ when you enter the market. There are those who would argue that you only take a hit when you lose. They take a more aggressive approach, counting the cost of trading only with losing trades. Either way,
Illustrations 6a (cost of trading for all trades) and $\mathbf{6 b}$ (cost of trading for losing trades only) depict the impact of this variable on overall performance.

## Illustration 6: How Cost of Trading Affects FXPP System Performance

6a. Cost of Trading for All Trades

| 6a |  |  |  |
| :--- | :---: | ---: | ---: |
| Total Trades | 89 | \$ Won/Lost | \$ Average |
| Total Wins | 57 | $\$ 36,890$ | $\$ 647$ |
| Total Losses | 32 | $-\$ 9,060$ | $-\$ 283$ |
| Gross Profit | $\$ 27,830$ | $\$ 313$ |  |
| Cost of trading | $-\$ 4,450$ | $-\$ 50$ |  |
| Net Profit | $\$ 23,380$ | $\$ 263$ |  |

6b. Cost of Trading Losing Trades Only

| 6b |  |  |  |
| :--- | :---: | ---: | ---: |
| Total Trades | 89 | \$ Won/Lost | \$ Average |
| Total Wins | 57 | $\$ 36,890$ | $\$ 647$ |
| Total Losses | 32 | $-\$ 9,060$ | $-\$ 283$ |
| Gross Profit | $\$ 27,830$ | $\$ 313$ |  |
| Cost of trading | $-\$ 1,600$ | $-\$ 18$ |  |
| Net Profit | $\$ 26,230$ | $\$ 295$ |  |

Illustrations 7a (cost of trading for all trades) and 7b (cost of trading for losing trades only) show how the cost of trading affects the "High-Reliability" system. When you add this variable to the mix, you could find yourself anywhere from $\$ 633$ to $\$ 4,633$ in the hole after 89 trades. That is quite an impact, especially for a system that is "right" $90 \%$ of the time.

## Illustration 7. How Cost of Trading Affects "High-Reliability" Fictitious System Performance

## 7a. Cost of Trading for All Trades

| $7 \mathrm{7a}$ |  |  |  |
| :--- | :---: | ---: | ---: |
| Total Trades | 89 | \$ Won/Lost | \$ Average |
| Total Wins | 80 | $\$ 8,160$ | $\$ 102$ |
| Total Losses | 9 | $-\$ 8,343$ | $-\$ 927$ |
| Gross Profit |  | $-\$ 183$ | $-\$ 2$ |
| Cost of trading | $-\$ 4,450$ | $-\$ 50$ |  |
| Net Profit | $-\$ 4,633$ | $-\$ 52$ |  |

7b. Cost of Trading Losing Trades Only

| 7b |  |  |  |
| :---: | :---: | :---: | ---: |
| Total Trades | 89 | \$ Won/Lost | \$ Average |
| Total Wins | 80 | $\$ 8,160$ | $\$ 102$ |
| Total Losses | 9 | $-\$ 8,343$ | $-\$ 927$ |
| Gross Profit | $-\$ 183$ | $-\$ 2$ |  |
| Cost of trading | $-\$ 450$ | $-\$ 5$ |  |
| Net Profit | $-\$ 633$ | $-\$ 7$ |  |

Key Element 4: Trading Opportunities (How Often Your System Allows You to Trade)
To illustrate the affect of this variable on your trading, we'll compare FXPP's performance with that of another (fictitious but highly probable) system we'll call "Trendex."

The trading period for FXPP was six months, from 10/1/06 to 3/31/07.
The trading period for Trendex was one year, from 4/1/06 to 3/31/07.
In both scenarios, we'll assume that every valid trade is taken. Let's begin by comparing reliability, relative size of profits compared to losses, and the cost of trading for both systems as outlined in Illustration 8.

Illustration 8: Comparison FXPP and Trendex Performance

| FXPP |  |  |  | Trendex |  | \$ Won/Lost | \$ Average |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Trades | 89 | \$ Won/Lost | \$ Average | Total Trades | 69 |  |  |
| Total Wins | 57 | \$36,890 | \$647 | Total Wins | 47 | \$33,320 | \$709 |
| Total Losses | 32 | -\$9,060 | -\$283 | Total Losses | 22 | -\$6,280 | -\$285 |
| Reliability | 0.640 |  |  | Reliability | 0.681 |  |  |
| Gross Profit |  | \$27,830 | \$313 |  | ss Profit | \$27,040 | \$392 |
| Cost of trading |  | -\$4,450 | -\$50 | Cost | frading | -\$3,450 | -\$50 |
| Net Profit |  | \$23,380 | \$263 |  | et Profit | \$23,590 | \$342 |

Notice that at this stage of the evaluation, Trendex appears to perform better than FXPP. Trendex has a reliability factor of 0.681 against FXPP's 0.640 . What's more, Trendex has a better ratio of dollars lost to dollars gained. Trendex also seems to have a higher net average trade-- $\$ 342$ as compared to FXPP's $\$ 263$.

Illustration 9 shows us a comparison of the expectancy for both systems.

## Illustration 9: Comparison FXPP and Trendex Expectancy

| FXPP Expectancy: 89 GBP/USD Trades between 10/1/06 and 3/31/07 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GAINS |  |  | LOSSES |  |  |  |  |  |
| Total | 57 | $57 / 89=0.640$ | 3.481 | 2.662 | Total | 32 | $32 / 89=.360$ | -0.819 |
| Trendex Expectancy: 69 GBP/USD Trades between 4/1/06 and 3/31/07 |  |  |  |  |  |  |  |  |
| GAINS |  |  | LOSSES |  |  |  |  |  |
| Total | 47 | $47 / 69=0.681$ | 3.933 | 3.174 | Total | 22 | $22 / 69=.319$ | -0.759 |

Trendex has an R-factor of $\$ 3.174$ for each dollar risked, while FXPP's R-factor, at $\$ 2.662$, is about $\$ 0.51$ less. So once again it appears that even in terms of expectancy, Trendex is the better system.

However, at this point, we're not yet comparing apples to apples. This is because while Trendex produced 69 trades in a whole year, FXPP generated 89 trades in six months. In one year, FXPP could well produce twice as many trades.

To really evaluate the two systems, we need to place them both on the same time scale. To do so, we'll compare the expectancy times the number of trading opportunities both would have in a oneyear period, as shown in Illustration 10.

Illustration 10: Comparison FXPP and Trendex in Terms of Trading Opportunities

| FXPP <br> Expectancy <br> Opportunities |  |  |  | Total | Trendex <br> Opportunities |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\$ 2.662$ | 178 | $\$ 473.84$ |  | $\$ 3.174$ | 69 | $\$ 219.01$ |  |  |  |

## When we look at both systems in terms of expectancy times opportunities, then FXPP turns out to be the better system. In fact, MUCH better. In terms of profitability, FXPP is twice as profitable as Trendex.

What I hope you're seeing is that choosing a system on the basis of win percentage alone, or even combining reliability with the relative size of profits and losses, is not enough.

Furthermore, comparing systems on the basis of expectancy alone does not work. You need to integrate the first four key elements into your evaluation. To recap, those key elements are:

1) reliability
2) the relative size of profits compared to losses
3) the cost of trading
4) number of trading opportunities

The comparison of FXPP to Trendex wasn't complete until we had accounted for these four variables.

## Does Size Matter?

Yes, size DOES matter. So although our evaluation of FXPP and Trendex is complete, it does not quite give us the whole picture. Even with a system as good as FXPP, the remaining two key elements will greatly influence your ability to profit with it, and by extension, with ANY system.

They answer the question, "Does size matter?"
These two key elements are:

1) the SIZE of your trading account, and
2) how you decide your position SIZE.

These two elements are interrelated and inseparable, and without a certain initial account size, and without a position sizing strategy, the results FXPP obtained would not have been possible.

To see whether size really matters, let's examine how the size of your account and your position sizing strategies influence your ability to trade effectively. These two variables represent the heart of your money and risk management practices.

Let's face it, it is all too easy nowadays to open a highly-leveraged, under-funded forex trading account. While leverage gives you the advantage of controlling a relatively large amount of currency, it can also lead you to "bet the farm," resulting in the loss of all the funds in your account.

Let's take the $\$ 500$ mini account depicted in Illustration 11 as an example. Ninety-nine out of 100 traders with an initial account size that small will not survive a month in the markets.

To illustrate, let's say that you want to trade two min lots of GBP/USD at the current rate of 2.0006.
If your leverage rate is $100: 1$, this means that for $1 \%$ of the value of deal, you control 20,000 Great Britain Pounds.

To get the dollar value of that deal, you multiply the deal size $(20,000)$ by the price $(2.0006)$ and then divide by the leverage (100), e.g. $[(20,000 * 2.0006) / 100]=\$ 400.12$.

After executing this trade, you would have a balance of $\$ 99.88$ of uncommitted equity in your account.

## Illustration 11

| Starting <br> Capital | Position <br> Size | \$/Lot | Total <br> Deal | Blowout <br> Level |
| :---: | :---: | :---: | :---: | :---: |
| $\$ 500.00$ | 2 | $\$ 200.06$ | $\$ 400.12$ | $\$ 99.88$ |

Most trading platforms don't separate the margin (the amount committed as a deposit for the trade) from the total equity in your account. This practice can lead to a false sense of security. The fact is, you MUST maintain enough capital in your account to keep yourself at $100 \%$ margin AT ALL TIMES to avoid "blowout."

Your blowout level is the total amount of uncommitted equity.
So this means that even though your trading platform says you have a before-trade balance of $\$ 500$, you actually only have $\$ 99.88$ of disposable funds left in your account, because $\$ 400.12$ has been reserved as a deposit against your trade.

If a market move against your position causes a drawdown of more than your uncommitted equity, your account will be at less than 100\% margin. In most cases, your broker will automatically liquidate your position

Illustration 12 assumes the following scenario: you entered this trade on a Thursday evening, and as you went to bed, you were up 30 pips with a $\$ 120$ stop loss ( 60 pips times 2 lots), and all is well.

However, early Friday morning an economic report was released and at one point, the market moved $\$ 100$ (50 pips times 2 lots) against your entry point. This means that you have no more money in reserve, and that you are under $100 \%$ margin by 12 cents.

In other words, your blowout level was exceeded and your position was immediately liquidated at that point, even though your stop loss was not hit, and even if the market went on to gain 70 pips in your favor. However, since your blowout level was hit, if you are lucky, you are now left with $\$ 400$ in your account ( $\$ 500$ minus the $\$ 100$ blowout).

## Illustration 12

| Starting <br> Capital | Position <br> Size | $\$ /$ Lot | Total <br> Deal | Blowout <br> Level | Stop <br> Loss | $\$$ Move <br> Against Pos | GAIN/ <br> LOSS | Ending <br> Capital |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\$ 500.00$ | 2 | $\$ 200.06$ | $\$ 400.12$ | $\$ 99.88$ | $\$ 120.00$ | $-\$ 100.00$ | $-\$ 100.00$ | $\$ 400.00$ |

What's more, if you sustain four such losses in a row, which is entirely possible, you could well be out of business. This is especially true if you desperately tweak your stop loss to compensate for their being hit. Illustration 13 depicts this scenario.

## Illustration 13

| Starting <br> Capital | Position <br> Size | $\$ /$ Lot | Total <br> Deal | Blowout <br> Level | Stop <br> Loss | \$ Move <br> Against Pos | GAIN/ <br> LOSS | Ending <br> Capital |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\$ 500.00$ | 2 | $\$ 200.06$ | $\$ 400.12$ | $\$ 99.88$ | $\$ 120.00$ | $-\$ 100.00$ | $-\$ 100.00$ | $\$ 400.00$ |
| $\$ 400.00$ | 1 | $\$ 200.06$ | $\$ 200.06$ | $\$ 199.94$ | $\$ 60.00$ | $-\$ 50.00$ | $-\$ 60.00$ | $\$ 340.00$ |
| $\$ 340.00$ | 1 | $\$ 200.06$ | $\$ 200.06$ | $\$ 139.94$ | $\$ 60.00$ | $-\$ 75.00$ | $-\$ 60.00$ | $\$ 280.00$ |
| $\$ 280.00$ | 1 | $\$ 200.06$ | $\$ 200.06$ | $\$ 79.94$ | $\$ 80.00$ | $\mathbf{- \$ 1 0 0 . 0 0}$ | $-\$ 80.00$ | $\$ 200.00$ |

In contrast, reducing your position size to one lot in the first trade would have allowed you to remain in the trade without hitting your blowout level.

In that case, you would be committing $\$ 200.06$ to margin, leaving you with $\$ 299.94$ in uncommitted capital. Thus, even if the market moved 50 pips against you as shown in Illustration 14, your blowout limit would not be hit, your 60-pip stop loss would not be hit, you capture 60 of the 70-pip move, and your account ends up in much better condition.

## Illustration 14

| Starting <br> Capital | Position <br> Size | $\$ /$ Lot | Total <br> Deal | Blowout <br> Level | Stop <br> Loss | $\$$ Move <br> Against Pos | GAIN/ <br> LOSS | Ending <br> Capital |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\$ 500.00$ | 1 | $\$ 200.06$ | $\$ 200.06$ | $\$ 299.94$ | $\$ 60.00$ | $-\$ 50.00$ | $\$ 60.00$ | $\$ 560.00$ |
| $\$ 560.00$ | 1 | $\$ 200.06$ | $\$ 200.06$ | $\$ 359.94$ | $\$ 60.00$ | $-\$ 70.00$ | $-\$ 60.00$ | $\$ 500.00$ |
| $\$ 500.00$ | 1 | $\$ 200.06$ | $\$ 200.06$ | $\$ 299.94$ | $\$ 60.00$ | $-\$ 75.00$ | $-\$ 60.00$ | $\$ 440.00$ |
| $\$ 440.00$ | 1 | $\$ 200.06$ | $\$ 200.06$ | $\$ 239.94$ | $\$ 80.00$ | $-\$ 100.00$ | $-\$ 80.00$ | $\$ 360.00$ |

The examples above are admittedly a bit artificial. However, their purpose is to give you a glimpse as to the powerful influence that SIZE holds over your trading success.

In a nutshell, the interaction between account size and position size works like this: the initial account size will regulate the position size, and both together will affect how rapidly your account grows.

To show you how this works, we're now going to take a look at some real-world examples of the interaction between account size and position sizing. The data are from the 4/1/07--4/27/07 walkforward testing of FXPP using mechanical entries and hook exits.

The account is a mini account and the currency traded is GBP/USD.
When we first published our course manual, we suggested trading one mini lot for each $\$ 250$ of trading capital. This may work for very experienced traders, but our experience has been that most traders tend to over-leverage themselves.

We have modified our position sizing algorithm to a more conservative scale. It now calls for trading one mini lot of 10,000 units of the base currency for the first $\$ 1,000$ in the account, and one additional mini lot for each $\$ 500$ of additional equity.

Illustration 15 shows an account with starting capital of $\$ 1,000$.

Illustration 15: GBP/USD Mini Account with Starting Capital of \$1,000 (4/1/07—4/27/07)

| Starting Capital | $\begin{gathered} \hline \text { Position } \\ \text { Size } \\ \hline \end{gathered}$ | Market <br> Price | \$/Lot | Total <br> Deal | Blowout Level | $\begin{gathered} \text { \$ Move } \\ \text { Against Pos } \end{gathered}$ | $\begin{aligned} & \text { GAIN/ } \\ & \text { LOSS } \end{aligned}$ | Ending <br> Capital |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$1,000.00 | 1 | 1.9689 | \$196.89 | \$196.89 | \$803.11 | -\$28.00 | -\$14.00 | \$986.00 |
| \$986.00 | 1 | 1.9695 | \$196.95 | \$196.95 | \$789.05 | \$0.00 | \$84.00 | \$1,070.00 |
| \$1,070.00 | 1 | 1.9803 | \$198.03 | \$198.03 | \$871.97 | -\$33.00 | -\$25.00 | \$1,045.00 |
| \$1,045.00 | 1 | 1.9722 | \$197.22 | \$197.22 | \$847.78 | -\$17.00 | \$15.00 | \$1,060.00 |
| \$1,060.00 | 1 | 1.9633 | \$196.33 | \$196.33 | \$863.67 | \$0.00 | \$19.00 | \$1,079.00 |
| \$1,079.00 | 1 | 1.9607 | \$196.07 | \$196.07 | \$882.93 | -\$3.00 | \$111.00 | \$1,190.00 |
| \$1,190.00 | 1 | 1.9741 | \$197.41 | \$197.41 | \$992.59 | -\$5.00 | \$30.00 | \$1,220.00 |
| \$1,220.00 | 1 | 1.9798 | \$197.98 | \$197.98 | \$1,022.02 | -\$8.00 | \$105.00 | \$1,325.00 |
| \$1,325.00 | 1 | 1.9944 | \$199.44 | \$199.44 | \$1,125.56 | -\$30.00 | \$67.00 | \$1,392.00 |
| \$1,392.00 | 1 | 2.0014 | \$200.14 | \$200.14 | \$1,191.86 | \$0.00 | -\$10.00 | \$1,382.00 |
| \$1,382.00 | 1 | 1.9984 | \$199.84 | \$199.84 | \$1,182.16 | -\$54.00 | -\$18.00 | \$1,364.00 |
| \$1,364.00 | 1 | 1.9971 | \$199.71 | \$199.71 | \$1,164.29 | -\$42.00 | -\$17.00 | \$1,347.00 |
| \$1,347.00 | 1 | 2.0038 | \$200.38 | \$200.38 | \$1,146.62 | -\$60.00 | -\$3.00 | \$1,344.00 |
| \$1,344.00 | 1 | 1.9966 | \$199.66 | \$199.66 | \$1,144.34 | -\$36.00 | \$24.00 | \$1,368.00 |

After 14 trades, the account value has risen from the initial $\$ 1,000$ to $\$ 1,368$, for a gain of $\$ 368$.
At this rate, it will take a few more wins to allow trading more than one lot.
Illustration 16 shows the expectancy table for these trades. So with reliability above 50\%, gains 5 times losses, and a base expectancy of $\$ 2.14$, this is not a bad beginning.

Illustration 16: Expectancy Table based on $\$ 1,000$ Initial Capital, One Lot Per Trade

| FXPP Expectancy: 14 GBP/USD Trades between 4/1/07 and 4/27/06 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | GAINS | \$455.00 |  |  |  | Loss | -\$87.00 |  |
| Total | 8 | 8/14 = . 571 | 2.570 | 2.140 | Total | 6 | $6 / 14=.429$ | 0.430 |

Illustration 17 presents the same trades, but with a mini account that starts with $\$ 1,500$ in equity.
Notice how changing the size of the account affects the other variables: position size and account growth.

To illustrate, since the first trade is a loss, our position sizing algorithm brings the lots traded from two down to one. This is because the algorithm calls for trading one lot for the first $\$ 1,000$ and an additional lot for each additional $\$ 500$ beyond the $\$ 1,000$ mark.

As the trades progress, the position size follows the algorithm, changing in reaction to changes in capital.

Illustration 17: GBP/USD Mini Account with Starting Capital of \$1,500 (4/1/07—4/27/07)

| Starting <br> Capital | Position <br> Size | Market <br> Price | $\$ /$ Lot |
| :---: | :---: | :---: | ---: | ---: | ---: | ---: | ---: | ---: |

After 14 trades, the account value has risen from the initial $\$ 1,500$ to $\$ 2,195$, for a gain of $\$ 695$.

Illustration 18 shows the expectancy table for these trades.
Reliability is above $50 \%$ and gains are 4 times losses.
Because the average minimum loss is below $\$ 20$, at $\$ 12.40$, we have a relative expectancy of $\$ 4.36$.
Relative expectancy includes the affect of position sizing on the overall trading results. Average minimum losses above $\$ 20$ will change the expectancy calculation, and reduce expectancy somewhat.


As a final example of how account size and position sizing interact with mini accounts, we'll revisit the same trades, but start with $\$ 2,500$ in our account.

Illustration 19 shows how well the position sizing algorithm adapts to changes in the account size.
The account began with $\$ 2,500$ and ended at $\$ 4,064$, for a gain of $\$ 1,564$.
Illustration 19: GBP/USD Mini Account with Starting Capital of \$1,500 (4/1/07—4/27/07)

| Starting <br> Capital | Position <br> Size | Market <br> Price | $\$ /$ Lot | Total <br> Deal | Blowout <br> Level | \$ Move <br> Against Pos | GAIN/ <br> LOSS | Ending <br> Capital |
| :---: | :---: | :---: | ---: | :---: | ---: | ---: | ---: | ---: |
| $\$ 2,500.00$ | 4 | 1.9689 | $\$ 196.89$ | $\$ 787.56$ | $\$ 1,712.44$ | $-\$ 28.00$ | $-\$ 56.00$ | $\$ 2,444.00$ |
| $\$ 2,444.00$ | 3 | 1.9695 | $\$ 196.95$ | $\$ 590.85$ | $\$ 1,853.15$ | $\$ 0.00$ | $\$ 252.00$ | $\$ 2,696.00$ |
| $\$ 2,696.00$ | 4 | 1.9803 | $\$ 198.03$ | $\$ 792.12$ | $\$ 1,903.88$ | $-\$ 33.00$ | $-\$ 100.00$ | $\$ 2,596.00$ |
| $\$ 2,596.00$ | 4 | 1.9722 | $\$ 197.22$ | $\$ 788.88$ | $\$ 1,807.12$ | $-\$ 17.00$ | $\$ 60.00$ | $\$ 2,656.00$ |
| $\$ 2,656.00$ | 4 | 1.9633 | $\$ 196.33$ | $\$ 785.32$ | $\$ 1,870.68$ | $\$ 0.00$ | $\$ 76.00$ | $\$ 2,732.00$ |
| $\$ 2,732.00$ | 4 | 1.9607 | $\$ 196.07$ | $\$ 784.28$ | $\$ 1,947.72$ | $-\$ 3.00$ | $\$ 444.00$ | $\$ 3,176.00$ |
| $\$ 3,176.00$ | 5 | 1.9741 | $\$ 197.41$ | $\$ 987.05$ | $\$ 2,188.95$ | $-\$ 5.00$ | $\$ 150.00$ | $\$ 3,326.00$ |
| $\$ 3,326.00$ | 5 | 1.9798 | $\$ 197.98$ | $\$ 989.90$ | $\$ 2,336.10$ | $-\$ 8.00$ | $\$ 525.00$ | $\$ 3,851.00$ |
| $\$ 3,851.00$ | 6 | 1.9944 | $\$ 199.44$ | $\$ 1,196.64$ | $\$ 2,654.36$ | $-\$ 30.00$ | $\$ 402.00$ | $\$ 4,253.00$ |
| $\$ 4,253.00$ | 7 | 2.0014 | $\$ 200.14$ | $\$ 1,400.98$ | $\$ 2,852.02$ | $\$ 0.00$ | $-\$ 70.00$ | $\$ 4,183.00$ |
| $\$ 4,183.00$ | 7 | 1.9984 | $\$ 199.84$ | $\$ 1,398.88$ | $\$ 2,784.12$ | $-\$ 54.00$ | $-\$ 126.00$ | $\$ 4,057.00$ |
| $\$ 4,057.00$ | 7 | 1.9971 | $\$ 199.71$ | $\$ 1,397.97$ | $\$ 2,659.03$ | $-\$ 42.00$ | $-\$ 119.00$ | $\$ 3,938.00$ |
| $\$ 3,938.00$ | 6 | 2.0038 | $\$ 200.38$ | $\$ 1,202.28$ | $\$ 2,735.72$ | $-\$ 60.00$ | $-\$ 18.00$ | $\$ 3,920.00$ |
| $\$ 3,920.00$ | 6 | 1.9966 | $\$ 199.66$ | $\$ 1,197.96$ | $\$ 2,722.04$ | $-\$ 36.00$ | $\$ 144.00$ | $\$ 4,064.00$ |

After 14 trades, the account value has risen from the initial $\$ 2,500$ to $\$ 4,064$, for a gain of $\$ 1,564$.

Illustration 20 shows the expectancy table for these trades. Reliability is above $50 \%$ and gains are 4 times losses. Because the average minimum loss is $\$ 18.00$, we have a relative expectancy $\$ 11.07$.

Illustration 20: Expectancy Table Based on $\$ 2,500$ Initial Capital, Multiple Lots Per Trade

| FXPP Expectancy: 14 GBP/USD Trades between 4/1/07 and 4/27/06 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | GAIN | \$2,053.00 |  |  |  | SS | -\$489.00 |  |
| Total | 8 | 8/14 = . 571 | 13.930 | 11.070 | Total | 6 | 6/14 = . 429 | 2.860 |

To illustrate how position sizing and account size interact when trading standard lots, we'll be looking at the same 14 GBP/USD trades we saw in the mini account examples. All of the conditions are identical except for the position sizing algorithm.

For standard accounts the algorithm calls for trading one standard lot for the first $\$ 5,000$ in the account, and then one lot for each additional $\$ 2,500$ in the account.

Thus, an account with $\$ 5,000$ would trade one lot, and an account with $\$ 7,500$ would trade two lots, and account with $\$ 10,000$ would trade three lots, and so on.

So let's begin with Illustration 21, which depicts the results of trading standard account with \$5,000 in starting capital.

Illustration 21: GBP/USD Standard Account with Starting Capital of \$5,000 (4/1/07-4/27/07)

| Starting <br> Capital | Position <br> Size | Market <br> Price | $\$ /$ Lot | Total <br> Deal | Blowout <br> Level | $\$$ Move <br> Against Pos | GAIN/ <br> LOSS | Ending <br> Capital |
| :---: | :---: | :---: | :---: | :---: | :---: | ---: | ---: | ---: |
| $\$ 5,000.00$ | 1 | 1.9689 | $\$ 196.89$ | $\$ 196.89$ | $\$ 4,803.11$ | $-\$ 28.00$ | $-\$ 140.00$ | $\$ 4,860.00$ |
| $\$ 4,860.00$ | 1 | 1.9695 | $\$ 196.95$ | $\$ 196.95$ | $\$ 4,663.05$ | $\$ 0.00$ | $\$ 840.00$ | $\$ 5,700.00$ |
| $\$ 5,700.00$ | 1 | 1.9803 | $\$ 198.03$ | $\$ 198.03$ | $\$ 5,501.97$ | $-\$ 33.00$ | $-\$ 250.00$ | $\$ 5,450.00$ |
| $\$ 5,450.00$ | 1 | 1.9722 | $\$ 197.22$ | $\$ 197.22$ | $\$ 5,252.78$ | $-\$ 17.00$ | $\$ 150.00$ | $\$ 5,600.00$ |
| $\$ 5,600.00$ | 1 | 1.9633 | $\$ 196.33$ | $\$ 196.33$ | $\$ 5,403.67$ | $\$ 0.00$ | $\$ 190.00$ | $\$ 5,790.00$ |
| $\$ 5,790.00$ | 1 | 1.9607 | $\$ 196.07$ | $\$ 196.07$ | $\$ 5,593.93$ | $-\$ 3.00$ | $\$ 1,110.00$ | $\$ 6,900.00$ |
| $\$ 6,900.00$ | 1 | 1.9741 | $\$ 197.41$ | $\$ 197.41$ | $\$ 6,702.59$ | $-\$ 5.00$ | $\$ 300.00$ | $\$ 7,200.00$ |
| $\$ 7,200.00$ | 1 | 1.9798 | $\$ 197.98$ | $\$ 197.98$ | $\$ 7,002.02$ | $-\$ 8.00$ | $\$ 1,050.00$ | $\$ 8,250.00$ |
| $\$ 8,250.00$ | 2 | 1.9944 | $\$ 199.44$ | $\$ 398.88$ | $\$ 7,851.12$ | $-\$ 30.00$ | $\$ 1,340.00$ | $\$ 9,590.00$ |
| $\$ 9,590.00$ | 2 | 2.0014 | $\$ 200.14$ | $\$ 400.28$ | $\$ 9,189.72$ | $\$ 0.00$ | $-\$ 200.00$ | $\$ 9,390.00$ |
| $\$ 9,390.00$ | 2 | 1.9984 | $\$ 199.84$ | $\$ 399.68$ | $\$ 8,990.32$ | $-\$ 54.00$ | $-\$ 360.00$ | $\$ 9,030.00$ |
| $\$ 9,030.00$ | 2 | 1.9971 | $\$ 199.71$ | $\$ 399.42$ | $\$ 8,630.58$ | $-\$ 42.00$ | $-\$ 340.00$ | $\$ 8,690.00$ |
| $\$ 8,690.00$ | 2 | 2.0038 | $\$ 200.38$ | $\$ 400.76$ | $\$ 8,289.24$ | $-\$ 60.00$ | $-\$ 60.00$ | $\$ 8,630.00$ |
| $\$ 8,630.00$ | 2 | 1.9966 | $\$ 199.66$ | $\$ 399.32$ | $\$ 8,230.68$ | $-\$ 36.00$ | $\$ 480.00$ | $\$ 9,110.00$ |

After 14 trades, the account value has risen from the initial $\$ 5,000$ to $\$ 9,110$, for a gain of $\$ 4,110$.

Illustration 22 shows the expectancy table for these trades.
Reliability is above $50 \%$ and gains are 4 times losses.
Because the average minimum loss is below $\$ 200$, at $\$ 100$, we have a relative expectancy $\$ 2.43$.
Relative expectancy includes the affect of position sizing on the overall trading results. Average minimum losses above $\$ 200$ will change the expectancy calculation, and reduce expectancy somewhat.

Illustration 22: Expectancy Table Based on $\$ 5,000$ Initial Capital, Multiple Lots Per Trade

| FXPP Expectancy: 14 GBP/USD Trades between 4/1/07 and 4/27/06 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | GAINS | \$5,460.00 |  |  |  | SS | -\$1,350.00 |  |
| Total | 8 | 8/14 = . 571 | 3.140 | 2.430 | Total | 6 | 6/14 = . 429 | 0.710 |

Illustration 23 presents the same trades, but with a standard account that starts with $\$ 7,500$ in equity.

Notice how changing the size of the account affects the other variables: position size and account growth.

To illustrate, since the first trade is a loss, our position sizing algorithm brings the lots traded from two down to one. This is because the algorithm calls for trading one lot for the first \$5,000 and an additional lot for each additional $\$ 2,500$ beyond the $\$ 5,000$ mark.

As the trades progress, the position size follows the algorithm, changing the number of lots in reaction to changes in capital.

Illustration 23: GBP/USD Standard Account with Starting Capital of \$7,500 (4/1/07-4/27/07)

| Starting <br> Capital | Position <br> Size | Market <br> Price | $\$ /$ Lot | Total <br> Deal | Blowout <br> Level | \$ Move <br> Against Pos | GAIN/ <br> LOSS | Ending <br> Capital |
| :---: | :---: | :---: | ---: | :---: | ---: | ---: | ---: | ---: |
| $\$ 7,500.00$ | 2 | 1.9689 | $\$ 196.89$ | $\$ 393.78$ | $\$ 7,106.22$ | $-\$ 28.00$ | $-\$ 280.00$ | $\$ 7,220.00$ |
| $\$ 7,220.00$ | 1 | 1.9695 | $\$ 196.95$ | $\$ 196.95$ | $\$ 7,023.05$ | $\$ 0.00$ | $\$ 840.00$ | $\$ 8,060.00$ |
| $\$ 8,060.00$ | 2 | 1.9803 | $\$ 198.03$ | $\$ 396.06$ | $\$ 7,663.94$ | $-\$ 33.00$ | $-\$ 500.00$ | $\$ 7,560.00$ |
| $\$ 7,560.00$ | 2 | 1.9722 | $\$ 197.22$ | $\$ 394.44$ | $\$ 7,165.56$ | $-\$ 17.00$ | $\$ 300.00$ | $\$ 7,860.00$ |
| $\$ 7,860.00$ | 2 | 1.9633 | $\$ 196.33$ | $\$ 392.66$ | $\$ 7,467.34$ | $\$ 0.00$ | $\$ 380.00$ | $\$ 8,240.00$ |
| $\$ 8,240.00$ | 2 | 1.9607 | $\$ 196.07$ | $\$ 392.14$ | $\$ 7,847.86$ | $-\$ 3.00$ | $\$ 2,220.00$ | $\$ 10,460.00$ |
| $\$ 10,460.00$ | 3 | 1.9741 | $\$ 197.41$ | $\$ 592.23$ | $\$ 9,867.77$ | $-\$ 5.00$ | $\$ 900.00$ | $\$ 11,360.00$ |
| $\$ 11,360.00$ | 3 | 1.9798 | $\$ 197.98$ | $\$ 593.94$ | $\$ 10,766.06$ | $-\$ 8.00$ | $\$ 3,150.00$ | $\$ 14,510.00$ |
| $\$ 14,510.00$ | 4 | 1.9944 | $\$ 199.44$ | $\$ 797.76$ | $\$ 13,712.24$ | $-\$ 30.00$ | $\$ 2,680.00$ | $\$ 17,190.00$ |
| $\$ 17,190.00$ | 5 | 2.0014 | $\$ 200.14$ | $\$ 1,000.70$ | $\$ 16,189.30$ | $\$ 0.00$ | $-\$ 500.00$ | $\$ 16,690.00$ |
| $\$ 16,690.00$ | 5 | 1.9984 | $\$ 199.84$ | $\$ 999.20$ | $\$ 15,690.80$ | $-\$ 54.00$ | $-\$ 900.00$ | $\$ 15,790.00$ |
| $\$ 15,790.00$ | 5 | 1.9971 | $\$ 199.71$ | $\$ 998.55$ | $\$ 14,791.45$ | $-\$ 42.00$ | $-\$ 850.00$ | $\$ 14,940.00$ |
| $\$ 14,940.00$ | 4 | 2.0038 | $\$ 200.38$ | $\$ 801.52$ | $\$ 14,138.48$ | $-\$ 60.00$ | $-\$ 120.00$ | $\$ 14,820.00$ |
| $\$ 14,820.00$ | 4 | 1.9966 | $\$ 199.66$ | $\$ 798.64$ | $\$ 14,021.36$ | $-\$ 36.00$ | $\$ 960.00$ | $\$ 15,780.00$ |

After 14 trades, the account value has risen from the initial $\$ 7,500$ to $\$ 15,780$, for a gain of $\$ 8,280$.
Illustration 24 shows the expectancy table for these trades.
Reliability is above $50 \%$ and gains are 3.63 times losses.
Because the average minimum loss of $\$ 120$ is less than $\$ 200$, we have a relative expectancy $\$ 5.86$.

## Illustration 24: Expectancy Table Based on \$7,500 Initial Capital, Multiple Lots Per Trade

| FXPP Expectancy: 14 GBP/USD Trades between 4/1/07 and 4/27/06 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | GAINS | \$11,430.00 |  |  |  | SS | -\$3,150.00 |  |
| Total | 8 | 8/14 = . 571 | 7.500 | 5.860 | Total | 6 | 6/14 = . 429 | 1.640 |

As a final example of how account size and position sizing interact with standard accounts, we'll revisit the same trades, but start with $\$ 10,000$ in our account.

Illustration 25 shows how well the position sizing algorithm adapts to changes in the account size.
The account began with $\$ 10,000$ and ended at $\$ 23,590$, for a gain of $\$ 13,590$.

Illustration 25: GBP/USD Standard Account with Starting Capital of \$10,000 (4/1/07-4/27/07)

| Starting <br> Capital | Position <br> Size | Market <br> Price | $\$ /$ Lot | Total <br> Deal | Blowout <br> Level | \$ Move <br> Against Pos | GAIN/ <br> LOSS | Ending <br> Capital |
| :---: | :---: | :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $\$ 10,000.00$ | 3 | 1.9689 | $\$ 196.89$ | $\$ 590.67$ | $\$ 9,409.33$ | $-\$ 28.00$ | $-\$ 420.00$ | $\$ 9,580.00$ |
| $\$ 9,580.00$ | 2 | 1.9695 | $\$ 196.95$ | $\$ 393.90$ | $\$ 9,186.10$ | $\$ 0.00$ | $\$ 1,680.00$ | $\$ 11,260.00$ |
| $\$ 11,260.00$ | 3 | 1.9803 | $\$ 198.03$ | $\$ 594.09$ | $\$ 10,665.91$ | $-\$ 33.00$ | $-\$ 750.00$ | $\$ 10,510.00$ |
| $\$ 10,510.00$ | 3 | 1.9722 | $\$ 197.22$ | $\$ 591.66$ | $\$ 9,918.34$ | $-\$ 17.00$ | $\$ 450.00$ | $\$ 10,960.00$ |
| $\$ 10,960.00$ | 3 | 1.9633 | $\$ 196.33$ | $\$ 588.99$ | $\$ 10,371.01$ | $\$ 0.00$ | $\$ 570.00$ | $\$ 11,530.00$ |
| $\$ 11,530.00$ | 3 | 1.9607 | $\$ 196.07$ | $\$ 588.21$ | $\$ 10,941.79$ | $-\$ 3.00$ | $\$ 3,330.00$ | $\$ 14,860.00$ |
| $\$ 14,860.00$ | 4 | 1.9741 | $\$ 197.41$ | $\$ 789.64$ | $\$ 14,070.36$ | $-\$ 5.00$ | $\$ 1,200.00$ | $\$ 16,060.00$ |
| $\$ 16,060.00$ | 5 | 1.9798 | $\$ 197.98$ | $\$ 989.90$ | $\$ 15,070.10$ | $-\$ 8.00$ | $\$ 5,250.00$ | $\$ 21,310.00$ |
| $\$ 21,310.00$ | 7 | 1.9944 | $\$ 199.44$ | $\$ 1,396.08$ | $\$ 19,913.9$ | $-\$ 30.00$ | $\$ 4,690.00$ | $\$ 26,000.00$ |
| $\$ 26,000.00$ | 9 | 2.0014 | $\$ 200.14$ | $\$ 1,801.26$ | $\$ 24,198.74$ | $\$ 0.00$ | $-\$ 900.00$ | $\$ 25,100.00$ |
| $\$ 25,100.00$ | 9 | 1.9984 | $\$ 199.84$ | $\$ 1,798.56$ | $\$ 23,301.44$ | $-\$ 54.00$ | $-\$ 1,620.00$ | $\$ 23,480.00$ |
| $\$ 23,480.00$ | 8 | 1.9971 | $\$ 199.71$ | $\$ 1,597.68$ | $\$ 21,882.32$ | $-\$ 42.00$ | $-\$ 1,360.00$ | $\$ 22,120.00$ |
| $\$ 22,120.00$ | 7 | 2.0038 | $\$ 200.38$ | $\$ 1,402.66$ | $\$ 20,717.34$ | $-\$ 60.00$ | $-\$ 210.00$ | $\$ 21,910.00$ |
| $\$ 21,910.00$ | 7 | 1.9966 | $\$ 199.66$ | $\$ 1,397.62$ | $\$ 20,512.38$ | $-\$ 36.00$ | $\$ 1,680.00$ | $\$ 23,590.00$ |

After 14 trades, the account value has risen from the initial $\$ 10,000$ to $\$ 23,590$, for a gain of $\$ 13,590$.

Illustration 26 shows the expectancy table for these trades.
Reliability is above $50 \%$ and gains are 3.58 times losses.
Because the average minimum loss of $\$ 210$ is greater than $\$ 200$, the expectancy scale has changed, adjusting the relative expectancy to a new scale. We now have a relative expectancy $\$ 4.285$.

Illustration 26: Expectancy Table Based on $\$ 10,000$ Initial Capital, Multiple Lots Per Trade

| FXPP Expectancy: 14 GBP/USD Trades between 4/1/07 and 4/27/06 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | GAIN | \$18,850.00 |  |  |  | ss | -\$5,260.00 |  |
| Total | 8 | $8 / 14=.571$ | 5.714 | 4.285 | Total | 6 | $6 / 14=.429$ | 1.429 |

## Summary: What Can We Learn From All of This?

## Get rid of the need to be right.

The first thing we need to do is to find a way to reduce the effects of our need to be right. It's the chief reason why $95 \%$ of the traders currently coming to the Forex will last less than six months. Their need to be right rules their decision making, regardless of the system they are using.

For them, trading is a game they must win, not a business they must grow. In the process, they take the short-term view, often sacrificing long-term profits for short-term gains. As a result, they are always looking for the next big "score."

This compulsive desire to be right often compels them to sabotage their own trading by either staying in longer than they should, convinced that a losing trade will turn into that big win, or exiting too early and leaving most of their profits on the table.

In other words, they have no idea when to "hold 'em and when to fold 'em." As they watch their losses accumulate, they blame their system for their poor performance, never taking responsibility for their own trading decisions.

In contrast, many of the world's most successful traders are "right" less than 50\% of the time.
When they enter their trading room, they leave their egos at the door. For them, trading is a business, and they accept loss as part of the cost of doing business.

Successful traders take full responsibility for their trading decisions. They not only recognize the role they play in their own gains and losses, but they also recognize and correct their trading mistakes.

They know that by following a disciplined approach to trading, they will make money over the long run.

## Expectancy

Tharp's expectancy model gives us a way to measure how well the system we are using helps us "hold 'em or fold 'em."

In fact, when we apply all six of the model's key elements to our trading, it is much easier to temper our need to be right, and thus reap the rewards of long-term trading success.

## These six key elements are:

1) system reliability-the percentage of profitable trades
2) the relative size of profits compared to losses
3) the cost of making the trade (in the forex, it's the dollar value of the pip spread)
4) the opportunity factor-how often you trade
5) the SIZE of your account
6) your position sizing model

## Forex Profit Pro and Expectancy

During the course of this report, we evaluated Forex Profit Pro's latest GBP/USD trades using Tharp's idea of expectancy as the measuring stick.

We found that FXPP had a reliability factor of .64 , meaning that the system produced profitable trades $64 \%$ of the time when trading GBP/USD.

We also learned that the relative size of profits compared to losses (the Profit factor) varied from 3.5:1 to about 5:1.

Moreover, we determined that after accounting for the cost of trading, the system remains highly profitable. In addition, we saw the role trading opportunities play, and how they influence a system's profitability.

As a final step, we examined the effect of size on system performance. Here, we introduced the money management factors of account size and position sizing. We discovered how the two work together to preserve and grow capital.

The findings of our evaluation are summarized below.

Recap of Position Sizing and Account Size: Mini Accounts


You can see the effect that account size and position sizing have on gains and losses.
The $\$ 1,000$ account experienced a $34 \%$ gain, the $\$ 1,500$ account made a $46 \%$ gain, and the \$2,500 account produced a 63\% gain.

Let's take a look at the same trades in a standard account.

Recap of Position Sizing and Account Size: Standard Accounts


In these examples, you can clearly see how account size and position sizing affect gains and losses in a standard account.

The $\$ 5,000$ account experienced an $82 \%$ gain, the $\$ 7,500$ account made a $110 \%$ gain, and the $\$ 10,000$ account produced a $136 \%$ gain.

## What's the next step?

Quantum Research Management Group has taken complex ideas and transformed them into Forex Profit Pro (FXPP), a simple trading system that lets you know exactly:

1) where to enter
2) what your initial stop loss would be
3) what the subsequent stop loss values should be
4) when to take profit and
5) when to let your profits run.

With FXPP's clear signals, you'll know exactly when to hold 'em and when to fold 'em.
FXPP is

- POWERFUL enough to deliver Break-through Profits in an hour or two a day
- EASY enough for a complete NEWBIE to master with PRECISE entry, exit and stop loss signals and
- FLEXIBLE enough to adapt to your unique trading style


## Trading with FXPP for Maximum Profit Online Webinar

We deliver a daily online and phone-in webinar to give you an introduction to trading the Forex with FXPP and to answer any/all questions you may have - live and in-person.

There's no sales pitch. It's just purely informational and educational.
To schedule a webinar, simply visit the link below.

## www.forexprofitpro.com/webinar.html

## Online Instructional Videos

You can also view our instructional demo Forex trading videos that show you how you can make more money in the Forex, quickly and simply. Click the link below to go there now.

## www.forexprofitpro.com/videos

As a Forex Profit Pro client, you can trade with the broker of your choice. In addition, you receive

- Forex Profit Pro Trading Software with precise entry, exit and stop loss signals
- Real-time Streaming Forex Data
- Forex Profit Pro Trading Guide, which presents FXPP methodology in an easy to understand, step-by-step format.
- Free training videos.
- No-nonsense, easy-to-follow webinars.
- Time Frames/Cycle Chart, which maps out the optimal trading times for selected currency pairs.
- Economic Report Map, which lists the high-impact reports and their average pip moves by currency pair.
- Automatic software updates in response to new research.
- Personalized-one-on-one assistance and unparalleled client support.
- Access to us via email, phone, and live chat via our website.

We look forward to meeting you, answering all your questions and helping you discover how FXPP can dramatically increase your Forex trading profits.

