

## READERS' QUESTIONS: BREAKEVEN ANALYSIS

By Tom D'Angelo

### SUBJECT SUMMARY

#### THE BUSINESS OF TRADING

Trading is a business. The trader deals in buy and sell contracts and has an inventory of shares that are the same as the 'stock' in a retail shop. His customers do not walk in the door. They are found throughout the country and are connected by a broker and an exchange which facilitates the sale of 'shares'. Every business has its profitable and less profitable sections. Trading is no different and our profits come from particular techniques and processes. Successful traders create a professional trading environment to manage their trading activities similar to a successful business.

Good software assists in this process. These articles explain how ManusRisco money management software is used to improve the business control and management of trading.

Failure to adopt a professional, disciplined businesslike approach towards speculation and investment will significantly decrease your chances of achieving long term profitability in today's volatile trading arena. These articles are designed to teach you how to create a professional trading environment so you can manage your trading activities similar to a successful business and make confident, disciplined trading decisions.

Over the next few weeks we will cover these topics:

- Introduction - How successful businesses are organised
- The Profit Centre business model applied to trading
- A professional, disciplined money management methodology
- Positive and negative expectation games
- Drawdown
- Return on Investment
- PTR / UTR
- **Breakeven Analysis**
- The edge: Who has it and how to get it.

In previous articles, we learned how to create a Profit Centre structure designed to organise our trading results similar to a successful business. We also took a look at the Drawdown, Return on Investment and PTR / UTR reports which can be created from the trading results we entered into our Profit Centres.

In this article we will take a look at Breakeven. Every trader has a breakeven point which consists of the relationship between the percentage profitable trades and the Ratio of Average Profitable Trade to Average Unprofitable Trade. The higher the percentage profitable trades, the lower the Ratio required to breakeven, and vice versa.

The breakeven point for % Profitable Trades is calculated using the following simple formula:

$$P = \frac{1}{R + 1} \quad \text{Where } P = \% \text{ of Profitable Trades and } R = \text{Ratio of Average Profitable Trade divided by Average Unprofitable Trade.}$$

If  $R = 1.00$ , then the % of Profitable Trades required for breakeven is 50% which is calculated as follows:

$$P = \frac{1}{1 + 1} = 1 / 2 = 50 \%$$

The breakeven point for the Ratio of Average Profitable Trade to Average Unprofitable Trade is calculated by the following simple formula:

$$R = \frac{1 - P}{P} \quad \text{Where } P = \% \text{ Profitable Trades and } R = \text{Ratio of Average Profitable Trade divided by Average Unprofitable Trade.}$$

If you are achieving 40% profitable trades, then you must attain a Ratio of at least 1.50 to break even, which is calculated as follows:

$$R = \frac{1 - .40}{.40} = 1.50$$

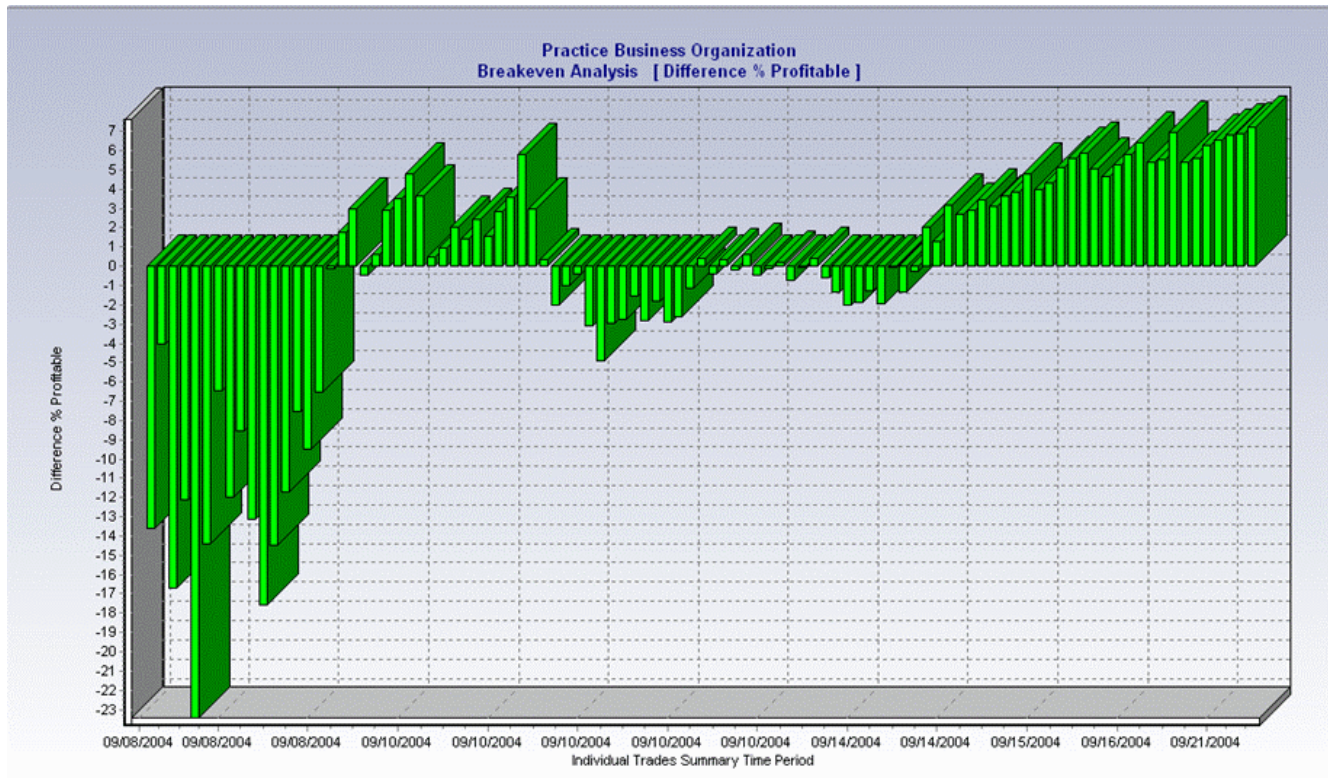
The informed trader always knows where his breakeven point is, as well as the relationship between the % profitable trades and the Ratio.

For example, if the trader has 40% profitable trades, the Ratio for breakeven is 1.50. If his actual Ratio is above 1.50, then the trader is in a profitable situation. If the Ratio is below 1.50, then the trader knows that at 40% profitable trades, he must increase his Ratio by increasing his average profitable trade relative to his average unprofitable trade.

If he cannot increase the Ratio and he cannot hit more than 40% profitable trades, he will go broke.

Likewise, the breakeven % of profitable trades for a Ratio of .90 equals 52.6%. If the trader is hitting more than 52.6% profitable trades, he will be profitable. If he is hitting less than 52.6% at a Ratio of .90, he will eventually go broke.

The image below displays a graph of the Difference between the breakeven % profitable trades and the actual % profitable trades. You would like to see this Difference above zero and increasing, as displayed on the graph. The Difference was initially below zero, but now is heading in the right direction.



A report which calculates all the above statistics can be seen below.

## Practice

Individual Trades Breakeven Analysis  
ALL Trade Dates

Trade Date	Cum # Prof	Cum # Unprof	Cum Avg Profitable	Cum Avg Unprofitable	Actual % Profit	Breakeven % Profit	Difference % Profit	Actual Ratio	Breakeven Ratio	Difference Ratio
09/08/2004	0	1		(\$ 318)	0 %					
09/08/2004	1	1	\$ 182	(\$ 318)	50 %	64 %	(14 %)	0.57	1.00	-0.43
09/08/2004	2	1	\$ 132	(\$ 318)	67 %	71 %	(4 %)	0.42	0.50	-0.08
09/08/2004	2	2	\$ 132	(\$ 264)	50 %	67 %	(17 %)	0.50	1.00	-0.50
09/08/2004	3	2	\$ 102	(\$ 264)	60 %	72 %	(12 %)	0.39	0.67	-0.28
09/08/2004	3	3	\$ 102	(\$ 282)	50 %	73 %	(23 %)	0.36	1.00	-0.64
09/08/2004	4	3	\$ 112	(\$ 282)	57 %	72 %	(14 %)	0.40	0.75	-0.35
09/08/2004	5	3	\$ 127	(\$ 282)	63 %	69 %	(6 %)	0.45	0.60	-0.15
09/08/2004	5	4	\$ 127	(\$ 264)	56 %	68 %	(12 %)	0.48	0.80	-0.32
09/08/2004	6	4	\$ 121	(\$ 264)	60 %	69 %	(9 %)	0.46	0.67	-0.21
09/08/2004	6	5	\$ 121	(\$ 253)	55 %	68 %	(13 %)	0.48	0.83	-0.36
09/08/2004	6	6	\$ 121	(\$ 252)	50 %	68 %	(18 %)	0.48	1.00	-0.52
09/08/2004	7	6	\$ 117	(\$ 252)	54 %	68 %	(14 %)	0.46	0.86	-0.39
09/08/2004	8	6	\$ 114	(\$ 252)	57 %	69 %	(12 %)	0.45	0.75	-0.30
09/08/2004	9	6	\$ 121	(\$ 252)	60 %	68 %	(8 %)	0.48	0.67	-0.19
09/08/2004	9	7	\$ 121	(\$ 232)	56 %	66 %	(9 %)	0.52	0.78	-0.26
09/09/2004	10	7	\$ 123	(\$ 232)	59 %	65 %	(7 %)	0.53	0.70	-0.17
09/09/2004	11	7	\$ 147	(\$ 232)	61 %	61 %	0 %	0.63	0.64	0.00
09/09/2004	12	7	\$ 146	(\$ 232)	63 %	61 %	2 %	0.63	0.58	0.05
09/09/2004	13	7	\$ 142	(\$ 232)	65 %	62 %	3 %	0.61	0.54	0.07
09/09/2004	13	8	\$ 142	(\$ 235)	62 %	62 %	0 %	0.60	0.62	-0.01
09/10/2004	14	8	\$ 138	(\$ 235)	64 %	63 %	1 %	0.59	0.57	0.02
09/10/2004	15	8	\$ 142	(\$ 235)	65 %	62 %	3 %	0.60	0.53	0.07
09/10/2004	16	8	\$ 137	(\$ 235)	67 %	63 %	3 %	0.58	0.50	0.08
09/10/2004	17	8	\$ 137	(\$ 235)	68 %	63 %	5 %	0.58	0.47	0.11

The breakeven point for the % Profitable Trades and the Ratio will be constantly changing, especially for active traders. Therefore, the trader should know the breakeven relationships after each trade in order to examine his trading strategy and know whether he has to either improve his % Profitable Trades or his Ratio.

Many traders obviously try to increase the % Profitable Trades and the Ratio, but this is very difficult to achieve. If you increase the % Profitable Trades, the Ratio will probably go down, and vice versa. This is similar to a horseplayer who is trying to increase his % of winning bets and also increase the payoff odds on his winners. Unfortunately, if his % winners goes up, it is because he is betting on more favourites, which means he gets paid less on winners and his Ratio will go down. The same logic applies to trading.

The professional trader knows which way the two statistics which comprise his breakeven point are trending, so that he can adjust his trading strategy to accommodate current trading performance and maintain his trading edge.

Which brings us very conveniently to the edge - who has it and how to get it, but that subject will be in our next and last article.

Tom D'Angelo is the CEO of ManusRisco Inc. The money management methodology described in these articles is used by ManusRisco money management software which can be found at [www.manusrisco.com](http://www.manusrisco.com) This software adds an important business dimension to the business of share trading.