

The Principles of Risk Management:



Irrespective of your level of trading experience, this e-book should be of great value to you. It is aimed at providing traders of all levels of ability with the necessary information include effective risk management as part of your trade strategy.

In the following chapters, we cover ways in which you can protect your capital whilst trading, how margin can be used in trade positions, what a margin close-out can mean to your trade strategy and finally we'll discuss how traders apportion risk per trade.

Leveraged trading in foreign currency contracts or other off-exchange products on margin carries a high level of risk and may not be suitable for everyone. We advise you to carefully consider whether trading is appropriate for you in light of your personal circumstances. You may lose more than you invest. We recommend that you seek independent financial advice and ensure you fully understand the risks involved before trading. Trading through an online platform carries additional risks.

Chapter 1: Stop-Loss and Trailing Stop Orders

Stop-losses are a vital tool to help protect against the possibility of losses becoming too large. This is useful at all times but especially when there is a sudden market movement at a time when a trader is not at his or her trading screen. Every trade should have a price point where the reason for the trade has become invalid and that the trade should be closed out. It is usually at this price that a stop-loss should be set.

Note that setting the stop-loss itself is just one part of a risk management equation; correct position sizing is also vital to set the dollar amount one is prepared to lose if a stop-loss gets hit. Position sizing is covered in chapter 3 of this e-book.

What are stop-loss and trailing stop orders?

A stop-loss order (also called a stop order or stop market order) is a fixed, static order where the trader instructs their broker to automatically close a trade if price moves against them to a certain level. When a new trade position is triggered live in the markets, best practice dictates that a stop-loss value should also be associated with the open trade.

A trailing stop order is a variation of a stop-loss and moves with price by an amount set by the trader which is known as the 'trailing' amount. When a trade is triggered, the trailing order will be placed in the market and follows price as long as price moves in the direction of the trade. If price retraces, then the trailing stop-loss price will remain static until triggered.

Trading strategy and stop-loss orders

The choice of which stop order to use will be based on personal choice and the trading strategy being employed.

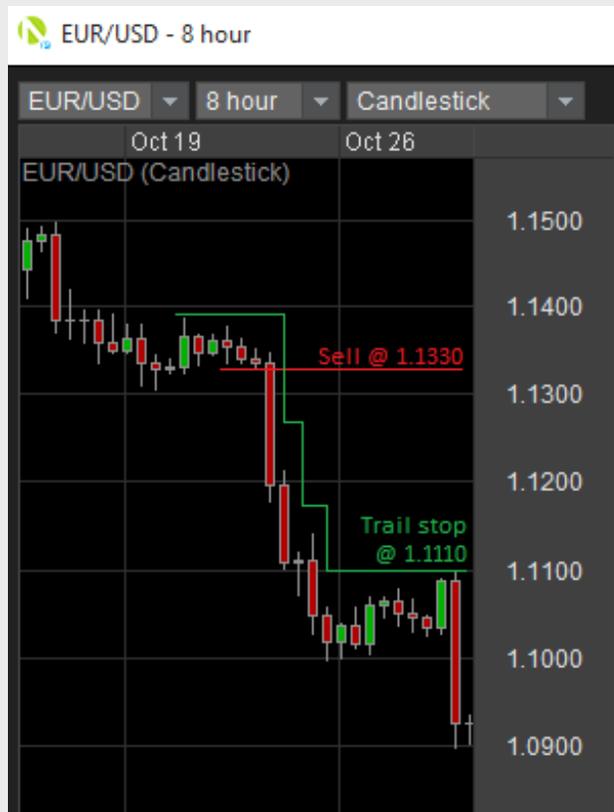
For example, one strategy could be to place a fixed stop-loss order in the most geographically sensible price level once a support or resistance level is identified. These orders can help protect against loss if the markets move in opposition to your trade strategy.

In another example, trailing stop orders can be used when the trader believes that market movement is likely to continue for some distance, to lock in trailing profit or to get to a break-even position (with the stop-loss at the entry price) as soon as practically possible. This is usually based on a trader's own experience or evidence that the trailing stop either reduces drawdown or increases profits.

The stop-loss order



The trailing stop order



Key aspects of stop-loss orders:



The maximum loss for every trade is planned and set in advance

Reduced stress due to pre-accepted loss



Trades strategy can execute without continual monitoring

Especially handy when the trader is on vacation, asleep, or away from an Internet connection



In an event where the market moves extremely quickly, a stop-loss order might not be executed at the set price

Key aspects of trailing stop-loss orders:

1. Reduces the risk of losing capital if the market goes in favor of the trade initially
2. Can also help with profit protection if favorable market moves continue
3. As with stop-loss orders, does not have to be monitored continuously
4. Reduced stress as maximum loss is known in advance
5. Limits the potential loss without limiting the potential profit
6. In an event where the market moves extremely quickly, a stop-loss order might not be executed at the set price

Note: Not currently available on all versions of the fxTrade Platform

It is possible to combine both stop-loss options in a single trade which will ultimately allow one to maximize the benefits of each.

When placing a new trade order, there are two options: trade at market by executing at the current live spot price or, set an entry order should price

reach a specific level then the trade should be executed at that price. Regardless of which new order is used, both allow the trader the ability of including a stop-loss and/or a trailing stop-loss order. A take-profit order is used to lock in profits from a profitable trade. This is also possible from the new trade order ticket.

On the fxTrade platform, both market orders and entry orders allow a trader to place any combination of take-profit, stop-loss and trailing stop orders, by ticking the appropriate box and setting the chosen price levels.

As soon as the stop-loss or take-profit orders are ticked, a default value is set.

The information text in each order window includes various information such as the trade value, the margin used, the price per pip, and the potential profit and loss values.

In MT4, stop-loss orders can be included in the original order if it is a limit/stop order or added after entering the trade if it is a market execution order. You must always identify and calculate your position size before committing your capital to a trade.

Trailing-stops can be added once an order is placed in MT4, by simply right-clicking on the selected order, and choosing the preferred trailing stop distance.

It is important to note that when using OANDA MT4, stop losses are hosted on the trader's computer. This means that if the computer is turned off or the MT4 platform is shut down, that trailing stops will not be effective. To ensure that trailing stops are always active, one may want to consider placing them using the fxTrade platform instead.

Price	S / L	T / P
1.09351	0.00000	0.00000

Remember, stop-loss orders and trailing stop-loss orders are there to protect existing capital whilst take-profit orders are there to add capital by taking profits at pre-determined levels.

Detailed information on all the order types available from OANDA can be found here:

<http://www.oanda.com/forex-trading/learn/intro-to-currency-trading/first-trade/orders>



Chapter 2: Understanding Leverage, Margin, and Margin Closeouts

Many financial instruments such as foreign exchange and CFDs, are conventionally traded by employing leverage. Financial leverage allows for the control of a larger amount of assets by using a relatively smaller amount of capital.

The amount of leverage employed in trading is represented as a ratio and often varies from 10:1 all the way to 100:1 and higher, although individual countries may have different legal restrictions on the maximum allowable leverage. For example, the maximum leverage in the US is capped at 50:1 by the CFTC. This ratio represents the amount of deposit a trader is required to put down against each trade. Thus, a trader using 50:1 leverage is required to put down 2% of the order value whereas another trader using a 10:1 leverage is required to put down 10% of the order value. These amounts that a trader needs to provide when initiating a trade, are called margin and are shown as percentages in the table:

Leverage ratios compared to percentage margin requirements:

Leverage Ratio	Minimum Required Margin
100:1*	1%
50:1	2%
40:1	2.5%
30:1	3.3%
20:1	5%
10:1	10%

*Not available in all countries. Please check with an OANDA representative about leverage in your country of residence.

It is important to remember that leveraged trading can be a double edged sword. Leverage can potentially magnify profits but by the same token can also amplify losses.

For example, if one were trading spot currency without leverage and bought \$10,000 AUD when the AUD/USD rate was 0.7000 then the trader would have to put up USD\$7,000 for the transaction. If the trader then sold when the rate went up to 0.7250, they would get USD\$7,250 (ignoring spread fee for simplicity) and the transaction would yield a profit of USD\$250 or a 3.6% return on the initial investment of USD\$7,000.

On the other hand, if this transaction was leveraged at 50:1, the margin required would be USD\$140 (2% of the USD\$7,000 transaction value). The trade would result in the same

USD\$250 profit as in the unleveraged case, resulting in a larger percentage return of 178.6% on the USD\$140 investment. Conversely however, if the rate fell to 0.6750 then the loss would be USD\$250 in both leveraged and unleveraged transactions, but in percentage terms the loss would be 3.6% if unleveraged while it would be 178.6% or 1.8 times the initial outlay if leveraged. Traders therefore need to be extremely cautious when employing leverage, because as is evident from this example, losses can exceed the initial investment, if adequate safeguards and precautions are not taken.

Margin Available Calculator	
Account Currency	USD
Currency Pair	EUR/USD
Current Price (EUR/USD)	1.1100
Margin Ratio	20:1
Number of Units	10000
Calculate	
Margin Used (USD)	555



While OANDA provides for leveraged trading allowing traders to have trade positions larger than capital invested, traders are additionally given the option to personally set their leverage at a level that they are comfortable with based on their individual circumstances and strategies.

Margin calls / closeouts:

Insufficient margin remaining in a trading account can lead to a margin closeout being triggered. This arises when the Net Asset Value or NAV becomes negative. NAV is essentially all assets minus all liabilities which is continually calculated on open positions by OANDA. Should the combined unrealized values of all open trades become too large with respect to the margin available, then a margin closeout would be triggered. The OANDA system notifies traders who are approaching a margin closeout to take appropriate action i.e. to close open trades or to increase the funds in the account; this is known as a margin call.

A margin closeout follows the margin call and is a protection mechanism for both the trader and for OANDA to limit losses to at least half the balance in the account (as the best case scenario). During times of high market volatility, markets can gap or

move very quickly, in which case losses could exceed all deposited funds. The margin call can, and should ultimately be avoided altogether.

How to avoid a margin closeout:

Margin closeouts and margin calls can be avoided by using appropriate risk management strategies. The correct use of stop-losses as described in the previous chapter and appropriate position sizing that we will cover in the following chapter are perhaps the two most important tools in this regard. Apart from these, one would be well advised to use leverage cautiously. Having a sound and well thought out trading plan which incorporates risk management and self-management in addition to effective trading strategies usually goes a long way in avoiding these.

The online OANDA Forex margin calculator can be found here:

<https://www.oanda.com/forex-trading/analysis/margin-calculator>

For more information on calculating margin calls and close-outs:

<http://fxtrade.oanda.com/help/how-to-calculate-margin-call>

OANDA fxTrade	
Account Summary (AUD)	
Balance	106,385.23
Unrealized P&L	-918.24
Unrealized P&L (%)	-0.86
Net Asset Value	105,466.99
Realized P&L	4,331.50
Margin Used	99,107.30
Margin Available	6,359.68
Margin Closeout Value	105,657.30
Margin Closeout Percent (%)	46.90
Position Value	1,982,146.14

Monitor your account constantly!

Keep an eye on your account's 'Margin Closeout Percent,' as the closer this value tends towards 100, the closer you are to a margin closeout.

For more information on margin closeouts and policy rules for each region, read more here:

US Division: <http://fxtrade.oanda.com/help/policies/margin-rules>

European Division: <http://fxtrade.oanda.co.uk/help/policies/margin-rules>

Asia Pacific Division: <http://www.oanda.sg/help/policies/margin-rules>

Canadian Division: <http://fxtrade.oanda.ca/help/policies/margin-rules>

Australian Division: <http://au.oanda.com/help/policies/margin-rules>





Chapter 3: Position Sizing – Calculating Your Personal Trading Risk

How professional traders calculate their trading risk using position sizing

A key process in managing risk and arguably the next most important risk management tool after stop-losses is position sizing. This is the process by which a trader arrives at the dollar amount to risk on any given trade. Proper position sizing can go a long way towards conserving trading capital thereby providing a trader with more longevity in the markets.

Several position sizing methods are popular, one of which is the 1-3 rule. The use of the 1-3 rule is quite widespread in the trading community. The 1-3 rule calls for no more than 1% of a trading account being risked in any given trade with no more than 3% of the trading account being risked at any given time.

The choice of which risk-reward ratio in one's trading plan varies from trader to trader, and is governed by their personal circumstances and risk appetite.

In deciding the amount that a trader wishes to risk in a trade as well as the total market exposure one is willing to undertake, traders would be well advised to consider the psychological impacts of these amounts on their trading.

Why is an appropriate position size so important?

Position sizes are important for two reasons. The first is that correct position sizing as mentioned earlier, has a direct impact on capital preservation and thus market longevity. The second is that correct position sizes can positively impact the psychological effects of trading, potentially making it more enjoyable and less stressful.

Ideally, the amount risked should be within the limits that allow a trader to trade with acceptance of loss, thereby making for objective trading decisions. At the same time these amounts should be more than the trader's threshold of financial triviality, or in other words, should be large enough to warrant the trader's interest. Finding and defining this balance is critical to one's trading success and an important input into any trading plan.

In practical terms, the amount at risk is determined by the difference between the entry price and the stop-loss price. If this difference between entry and stop is large, then the position size will naturally be smaller. Conversely, if the difference between entry and stop is small then the position size will often be larger.

Position sizing example in fxTrade:

Position sizing in the fxTrade platform is straight forward to do. In an order ticket, enter the price you wish to execute the trade at and the desired stop-loss. The number of units may be adjusted so that the dollar value of the stop-loss in the order-ticket is less than or equal to the risk per trade amount as determined by one's position sizing rules. In the case of a market order, enter the desired stop-loss and increase or decrease the number of units until you reach the desired risk amount.

Example: Assume that your trading account has \$5,000 and 1% is the maximum loss per trade that your position sizing rules allow. On a GBP/USD trade, the position size calculation would be as follows:

- ✓ Amount Risked $\$5,000 \times 1\% = \50
- ✓ Determine your desired the entry price and enter this into the order ticket.
- ✓ Enter your desired stop-loss in the order ticket
- ✓ Look at the dollar figure next to stop-loss and increase the number of units until this dollar figure is equal to the risk amount of \$50.

After calculating your position size on a trade, you may like to check it using the OANDA Forex Trading Profit/Loss Calculator. This will tell you your potential profit and loss on a trade using values that you enter for units and closing price.

<http://fxtrade.oanda.com/analysis/profit-calculator>

The image displays two side-by-side screenshots of the 'Entry Order - GBP/USD' window in the fxTrade platform. Both windows show a 'BUY' order for GBP/USD at a price of 1.42500, expiring in 1 week, with a stop loss set at 50 pips. The left window shows a trade value of 0.00 GBP and margin used of 0.00 GBP. The right window shows a trade value of 14,250.00 GBP and margin used of 712.50 GBP. A green arrow points from the left window to the right window, labeled 'Increasing the No. of Units'. Another green arrow points from the left window to the right window, labeled 'Increases the Stop-loss Amount'.

*The following calculations are applicable only if the quote currency and your account currency are the same.

Example of the Position sizing example in MT4:

The procedure is slightly different and more involved in the MT4 platform where the position size needs to be manually calculated using the formulae below. In MT4, the term “Volume” is

used instead of the term “Units”.

This amount represents the position size in relation to the standard lot size of 100,000 units. Thus 0.01 represents an order size of 1,000 units while 8 represents an order size of 800,000 units.

$$MT4 \text{ Position size} = \frac{(\text{Amount Risked } (\$) \times \text{Trade Entry Price} \times 1,000)}{\text{Trade Risk (pips)}} \div \text{MT4 Standard Lot size}$$

Let’s use the same GBP/USD example as we did for fxTrade; we have a \$5,000 trading account risking 1% on the trade:

- ▶ Amount Risked: **\$50**
- ▶ Trade Entry Price: **1.4250**
- ▶ Trade Risk: $1.4250 - 1.4200 = 50$ pips

$$\begin{aligned} \text{Position size} &= \frac{(\$50 \times 1.4250 \times 1,000)}{50} \\ &= \frac{14,250}{100,000} \\ &= 0.1425 \end{aligned}$$

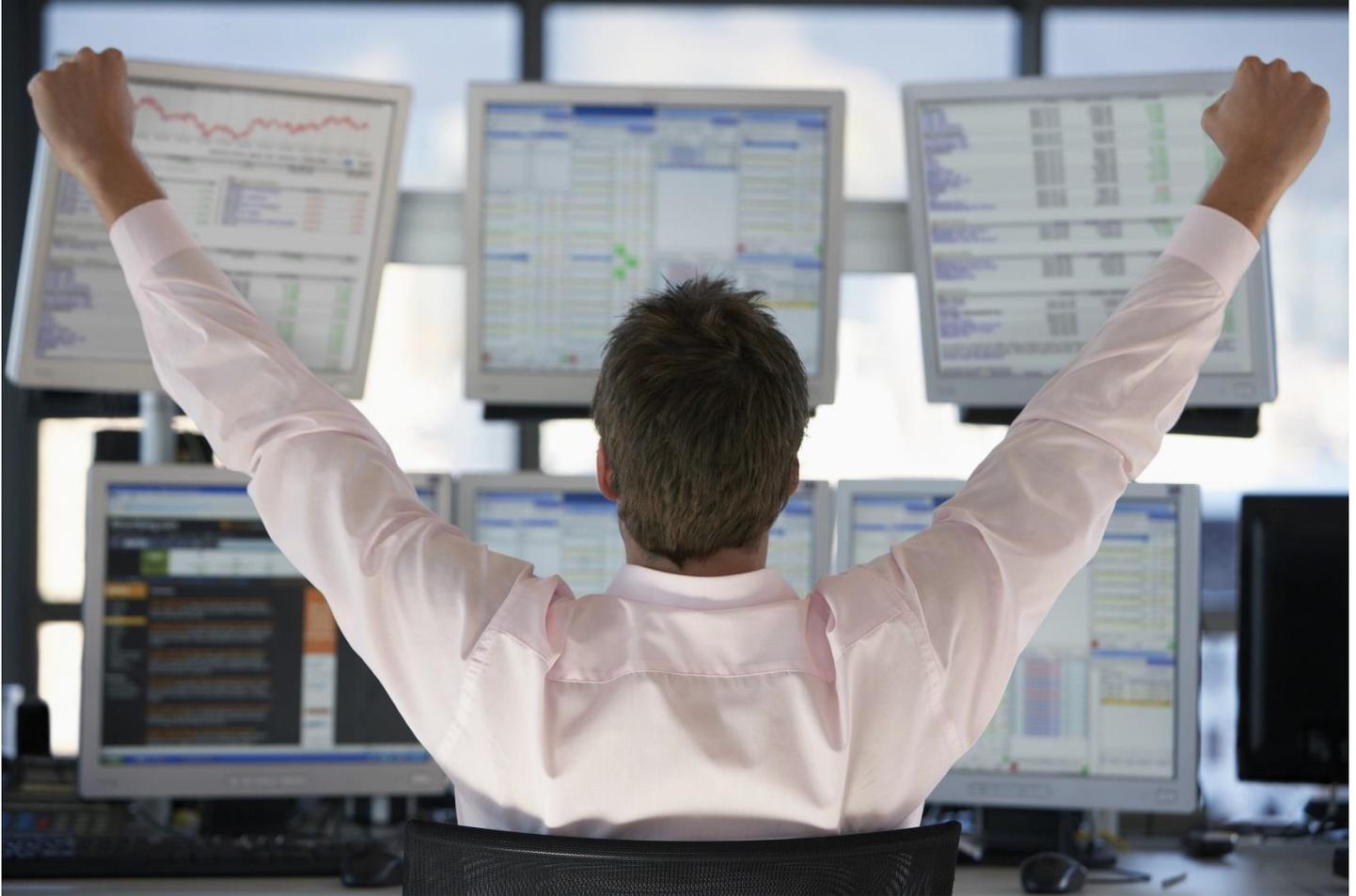
Dividing the number of units by a standard lot size (100,000 units) gives us an “exact volume” figure which we would round up or down accordingly.

The screenshot shows the MT4 Order window for GBPUSD. On the left, a price chart shows a Buy Limit order at 1.4250 and a Stop Loss (SL) at 1.4200. On the right, the order entry fields are filled with: Symbol: GBPUSD, GBP/USD; Stop Loss: 1.42000; Take Profit: 0.00000; Type: Pending Order; Pending Order Type: Buy Limit; at price: 1.4250; Expiry: 2016.04.19 14:37. A 'Place' button is visible next to the price field.

Position sizing will organically change over time depending on the equity available in your trading account. As the account grows, the units or volume traded will increase accordingly. Conversely if the account declines, the units or volume traded will decrease accordingly.

“At the end of the day, the most important thing is how good are you at risk control. Ninety-percent of any great trader is going to be the risk control”

~ Paul Tudor Jones



Summary

Over these 3 chapters we've discussed stop orders, leverage and margin. We looked at risk management both in terms of overall account risk and managing position sizing for individual trades.

With practice and experience you will hopefully find that a trading strategy inclusive of risk management will help preserve your capital and keep you on your trading plan.

We hope that you have found this information instructive and helpful in your trading journey.

Should you have any further questions and need assistance in any way, please contact your local OANDA representative at <http://www.oanda.com/corp/contact/>

