TREND FOLLOWER

This is not an elaborate set of complicated indicators which depend on the confluence of each indicator. Neither is it a resource intensive trading system.

It is a simple set of 5 EA's which use indicators industry recognized as the major trend signals. Each EA has only one indicator which operates independently.

The power of the system is it's simplicity in recognition but detail in money management and handling of the basket concept.

THE BASKET CONCEPT

Your trading will fluctuate on a daily basis and by being able to control the total equity picture, The CloseTrades EA allows you to close down all trading once a particular profit or loss target is achieved. I have enclosed **5 major trend following EA's** containing indicators which give signal reversal indications and will open a trade on this basis. Closure of the trade can be controlled by Stop Loss and Take Profit or Signal Reversal. To control by signal reversal alone, just set the Stop Loss and Take Profit values to 1000.

The idea is that your trading is following the current trend. Whilst all trades will not be successful, following the trend with a basket of trades will allow you to set a target whether it be daily or weekly and at that stage all existing trades are closed, your trading ceases and the EA's can remain in place but will not trade until you delete the "dummy" signal order (which is never filled because the buy limit price is 0.1). This signal order is recognized by the trading EA's as a suspend trading signal.

THE INPUTS

Trading Mode
Automatic Trading. The default value.
Advisory only - messages only are provided
Discretionary Trading - Prompts are given On Screen. With 2 Options - OK will automatically make the applicable Buy or Sell trade, Cancel will not make any trade.

Fixed Lot Size
Money management can be quite complicated if you take all the options presented and the option to nominate a fixed lot size gives you absolute simplicity in determining the relative values of strategies and filters in your back testing and trading. If you have been used to trading in small amounts such as .01 of a lot then fixing your lot size is the option you have with this input. This means that your Lot Size will remain fixed for every trade and Stop Loss Multiplier will have no effect.

Most MT4 brokers give you the option to trade in any of the major currencies so this means that the value of your profit is directly related to the size of your wager.
The rule of thumb is that a wager of 1 lot gives $10 (or 10 units of your own currency) per

pip gained (a pip is .0001 except JPY .01, Gold .1, Silver .01). So a wager of .01 gives $1 per 10 pips.

If left at 0, your lot size will be determined by the size of your equity. I would recommend that you do leave this at 0 and use your equity as the determining factor because you are then taking the first step in a money management plan.

Maximum Risk Percentage
The default value is set at 2%.

It is generally accepted that 2% of Equity represents sound money management practice. With the Lot Size left at 0, you need to have a percentage number in this input. Decimal values **are** acceptable.

The lot size is calculated on the following basis. 2% of equity of say $1000 = $20 (or 20 units of your nominated currency). This amount will buy .02 of a lot (1 lot costs $1000). Unless your broker deals in micro lots (.001), .01 of a lot is generally the minimum lot size. In other words $500 would be the recommended minimum bank required at 2% risk.

Bear in mind that the gearing level you have established with your broker will determine the margin requirement and if you are using a margin at 100:1 the margin requirement will be the value of your wager. At 200:1 your margin requirement will be half the value of your wager. The down side of higher leverage is that your equity is depleted faster if the price goes against you. At 200:1 your investment is fully lost after a movement of 50 pips (less with commission and brokerage).

As mentioned in the previous post, if you are determining the value of your wager on Stop Loss, you can start with higher wagers with Stop Losses less than 100 pips. (A pip is 0.0001 except JPY crosses 0.01, Gold 0.1 and Silver 0.01).

The Lot size is based on this percentage, Stop Loss value, Base Currency, Cross Rate and Account Leverage.

Stop Loss
The input for stop loss is in pips. (0.0001 except JPY 0.01, Gold 0.1 and Silver 0.01) . An input of 50 means you are allowing half a cent adverse movement.

The smaller the Stop Loss, the greater the Lot size if you are using Equity Risk %.

When considering the value of your stop loss, you need to take into account what fluctuations you should be allowing for in pursuit of a successful strategy. If historically the strategy takes normally a number of bars (periods) to be achieved, you need to take into account the Average True Range of the period of the previous trades.

The purpose of back testing and optimization is to discover historically the best figure to allow for fluctuations and optimize your profit potential. A number of factors can be taken into account such as whether the Stop Loss trails the profit as it rises and whether breakeven is locked in at a particular profit point.

Stop Loss cannot be guaranteed in a fast moving market and you need to be aware of this.

Unlike the stock market, there is generally **no** guaranteed Stop Loss by paying an extra commission.

Never ever trade without a Stop Loss. This is where the Expert Advisor takes all of the emotion out of a trade. Whilst a Stop Loss covers a particular trade, it does not cover all trades unless you use a specialized EA for this purpose such as the CloseTrades EA. The major mover of the Forex market is News Releases and the volatility around these releases can significantly reduce the ability for your Stop Losses to be filled without slippage.

Stop Loss Multiple
StopLossMultiple is the multiple that wagers are increased by when the previous wager results in a loss.

The concept of increasing the wager on losing strategies is very contentious and I must emphasise that if you leave the StopLossMultiplier at the default setting of 1, this negates any increase in wager.

A quick recap on Martingale - this is a system whereby you increase your wager on losses. In it's basic form, you double your wager with successive losses on the premise that eventually you will have a win and your profit will equal the value of your original wager. If you set your Stop Loss Multiplier to 2, wagers are doubled in succession with successive losses.

StopLossMultiplier **does not have to be 2.** It can be any decimal number you require.

Lets look at an example to put things in context.

If you set your wager at 1.5% of equity and your StopLossMultiplier at 1.2 .

If on any successive trades you have a loss, your next wager will increase in the following progression.
1.5%, 1.8%, 2.16%, 2.59%, 3.11%, 3.73%, 4.48%, 5.37%, 6.45%, 7.74%, 9.29%, 11.15%, 13.38%, 16.05%, 19.25%, 20% (that is the ceiling)

In other words, on that example, 16 losses on successive trades. If you reduce your starting equity you increase that number of 16 and conversely if you increase the value of the StopLossMultiplier, you reduce that sequence. Remember this is just one variable in a whole pattern of trading but is an important element in all the set files which I use. If you don't like it just leave the setting at the default value of 1 and do not optimize the setting.

What in effect this setting is saying to the system, is that I am just waiting for that good profitable trade to come along but I want to be in that position to capitalise when it does in fact appear. Your trade results may be filled with really small results just waiting to capitalise on a good trade. This is caused mainly by the SetStopLossToBreakEven protecting small profits.

I have purposely capped the maximum value at 20% of equity because **Martingale in its basic form will always eventually destroy your capital**. If a wager of 20% of capital is lost, the next wager returns to your original % of equity. Also remember we are not in a heads or tails situation where the result is a 100% gain or a 100% loss and that trading, contrary to what may be pushed by some commentators as random, is not that. Give some

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consideration to Fundamentals (ie. Economic Data, News Releases, Crowd Behaviour, Neural Networks and a full understanding of Fibonacci). This is not a casino where there is always a house edge. Also we are using technical indicators so we potentially have the edge rather than just the random fall of cards, balls or dice.

So Trend Follower is all about research and analysing what was effective in the near term past and applying it in the near term future. It just so happens I am trying to lead you down a path of your own explorations to suit your own requirements and providing the tool box and some training in your skill set. Back testing is monotonous but can be rewarding as long as you decide what works and what doesn't.

Trailing Stop Loss
The Trailing Stop Loss is automatically placed the nominated number of pips (the Stop Loss value) below the highest point on a buy trade and reverse for a sell trade. **It is generally moved every 5 pips** (0.0005) increase in price. If the price moves backward there is no adjustment.

There is also one situation where the Stop Loss will not trail and that is when the Set Stop Loss to Break Even cuts in to protect profits. The trail stops at this point and will not recommence until the price moves above Break Even by the value of the Stop Loss pips.

For example - if Set Stop Loss to Breakeven is set at 30 and Breakeven is 1.0000, at 1.0030 the StopLoss Price will be set to 1.0000 (I have factored in a "feel good" pip). If the Stop Loss value is 80, the Stop Loss will not start trailing again until the price has passed 1.0080.

Trailing Stop Loss gives you the security of maximising your profits by allowing for a pull back up to the value of your Stop Loss. There is another variable yet to be discussed which can progressively decrease the value of your Stop Loss as your profit increases and that is the Decrease Stop Loss Percentage which will be covered in detail in due course.

Set Stop Loss to Break Even Pips
Here is a quick example and I will discuss it after the example.

Buy Trade at 1.0000. SetStopLossToBreakEvenPips = 30
At 1.0032 (the 2 pips is representative of the spread), the Stop Loss is moved to 1.0002. In other words you will no longer make any loss on that trade.

This does need further explanation however. If your original Stop Loss was 80 and had been trailing up to this point, it will cease to trail at 1.0032 and will only commence to trail again at 1.0082 and that is the part that is being misunderstood. In other words there will be no movement of Stop Loss between 1.0032 and 1.0082. The integrity of the value of Stop Loss is being protected but more importantly your capital is being preserved in the interim and you will, in the worst case scenario, break even. Once the price moves above 1.0082, the Trailing Stop Loss will recommence.

So what you are in fact achieving, is preservation of capital just waiting for the opportunity of that killer trade.

FOOTNOTE: I have factored in programmatically a "feel good" pip. That is you will come out

with a minimal profit when the SetStopLossToBreakEvenPips cuts in.

Take Profit
Expressed in Pips (0.0001 except JPY pairs 0.01 Gold 0.1 and Silver 0.01)

When setting the value for Take Profit, bear in mind that at a gearing level of 100:1, you will gain the value of your investment when the price changes by 0.01 (1 cent). At 400:1 gearing level you gain the value of your investment when the price moves in your favour by 0.0025 (a quarter of a cent). Scalping the market means that you are looking for quick profits, something below 0.0010, that is a movement of 10 pips or less. Obviously the return is much less unless the wager is higher. A few years ago, Brokers frowned on scalpers but now they actually don't mind at all. No doubt you have seen the threads devoted to ideas such a just making 5 pips a day.

My advice is to do your own back testing and optimization and see where your money is working most effectively. Trades with Take Profit values around 100 to 200 pips using hourly charts running a number of days seem to be more effective. Short term trading involves more trades which means more costs and entry points can be more critical.

Base Currency

This is required to correctly calculate Lot Size when trading in currency pairs which do not include your home currency or your home currency is the second part of the pair.

Related Rate

Used only for backtesting purposes where the applicable cross rate may not be available at the backtesting date.

INDICATOR VARIABLES

EMA Cross
EMA Cross is the cross of a short exponential moving average and a long exponential moving average. By itself, it is not very effective, since EMA cross is a lagging indicator (it is representative of past price action) but can be used in conjunction with other indicators as confirmation of other signals. The values on the Short Moving Average and the Long Moving Average can be specified.

Relative Strength Index
RSI is a measurement of the Exponential Moving Average of the Average Gain / Average Loss (expressed as a percentage) over of a particular number of bars.

For example: If in a 14 bar period there were all gains, then the RSI(14) would be 100 and with all losses the value would be 0. This type of indicator is known as a momentum indicator and is a good measure of the strength of the market. Of particular importance is the direction of movement and it is generally accepted that the indicator moving down from a high level indicates a selling trend and moving up from a low level indicates a buying

trend. A reading over 50 indicates buying pressure and a reading below indicate selling pressure. **Peak and troughs moving in the opposite direction to price is known as divergence and can indicate imminent price reversal.**

When carrying out optimizations the RSI periods, Bottom Level and Top Level are variable and the RSI passing through the levels form the basis for Buy and Sell signals and this indicator is recommended as a reliable indicator for buying and selling pressure particularly over longer timeframes.

MACD - Moving Average Convergence/Divergence Oscillator
This indicator is created by subtracting a shorter EMA from a Longer EMA to form a MACD line. (commonly EMA 12 and EMA 26)
The values of this line are then averaged by an even shorter value to form a Signal line. (commonly EMA 9)
The difference between the values of the MACD line and the Signal line are normally displayed as a histogram.

When the short EMA crosses above the Long EMA the MACD has a value of 0 and this indicates buying pressure and reverse for selling pressure.

The signal line cross over of the MACD line is generally regarded as an earlier indicator of price movement and the histogram will be crossing the zero line at this point. **Traders Gift uses the Signal Line cross down over the MACD Line as Buy signal and the reverse for a Sell signal**. It is recommended that the Short, Long and Signal values all be optimized.

Like the RSI, divergence occurs when lines joining the troughs (rising) or peaks (falling) form an opposite indication to price movement and this is indicative of price reversal.

Bollinger Bands - normally consist of 3 lines on a chart.

The middle line is a 20 Day (default) Simple Moving Average of Price
The upper line is displaced upwards from the middle line by a value of 2 times (default) the Average price deviation over the same number of periods
The lower line is displaced downwards from the middle line by a value of 2 times (default) the Average price deviation over the same number of periods

Because this deviation average varies from bar to bar the width of these channels will vary.

There are numerous ways of interpreting Bollinger Bands, however Trend Follower makes a simple assumption that when the **price moves down from above the top band** that this indicates decreasing price trend and a **sell signal is generated and the opposite for a close above the bottom band** when a buy signal is generated.

The values of the number of periods and the deviation are recommended to be optimized.

CCI - Commodity Channel Index is an indicator which compares the current price to average price over a particular number of periods and provides oversold or overbought signals.

The formula is
CCI = (Typical Price - N periods SMA of Typical Price) / (.015 x Mean Deviation)

N is the number of periods for the calculation
Typical Price is the average of High + Low + Close
Mean Deviation is the average of the deviations over the same period

The CCI can vary between lower than -100 to greater than +100

Trend Follower interprets a Buy signal when the CCI crosses up through -100 and a Sell signal when the CCI crosses down through +100 so behaves similarly to the RSI crossing upper and lower levels. As such it is a leading indicator which provide advance notice of momentum in either direction.

It is recommended that the number of Periods be optimized.

<u>Setting Up Optimizations</u> -

The concept is that we are looking to optimize the variables which determine the buy or sell signal over a particular time period in the past. I do recommend that you only look at the immediate previous 3 months as the behaviour of the market is constantly changing and any information you draw from 1 year ago may be no longer relevant. You just need to look at all the EA's that have been marketed and the majority will not stand the test of time. By default only the variables used in the calculation are selected for optimization when a particular strategy is selected.

Beware that optimizations only indicate what has happened in the past (hence the term "curve fitting"), and forward testing is recommended for confirmation
Firstly a discussion on the need for optimizations. Each currency pair has an individual average daily trading range. So if you are on a long term trading plan, you need to account for the daily fluctuations. Similarly for other trading plans you need to account for the normal ebb and flow of market movement. What may be a 200 pips movement of GBPUSD is only represented by a 90 pip movement of the NZDUSD, so any pip setting in your Strategies needs to be optimized for the currency pair that you are using. Similarly a 10/30 EMA crossover on GBPUSD has a different implication to a 10/30 EMA crossover on NZDUSD and that is why all indicator readings need to be optimized for each currency pair.

What is particularly significant also is that we are only determining what has worked well in the past and of course that may not work as well in the future. The term "curve fitting" relates to getting the best possible return off previous market movements and applying them to future trading. Some indicators do have standard settings such as MACD 12,26,9, & RSI 14 & 200 EMA but the purpose of optimizations is to find out what is reliable over independent periods in the past. My own theory is that it is a constantly changing ball park driven primarily by fundamental economic factors. There are some age old Support and

Resistance levels such as Fibonacci and Daily Pivots.

I suggest optimizing on the last 3 months figures alone. Not only does it cut down on optimization time, but for example, what was US monetary policy or the state of Greece's borrowing from the EU 2 years ago, has zero bearing on the economic situation today. So what I am saying to you is that **current technical indicator values reflect the thinking in the current economic situation** and that is why we need to constantly re optimize.

How to Handle Money Management:

The tools at your disposal give you many options to consider. The more of the following tools that you use and optimize, the greater the increase in Profit Factor.

1. Trailing Stop Loss - always recommended

2. Stop Loss - Must have

3. Stop Loss Multiplier - recommended

4. Take Profit - recommended

5. Set Stop Loss to Break Even - recommended

As a minimum - Stop Loss, and Stop Loss Multiple should be. The hardest part of Forex trading is dealing with the emotional factors and that is where the EA excels. Your 2 enemies are greed and fear. Whilst an EA can handle Money Management on a per chart basis, **you need to take stock of the big picture.**

The EA's have an inbuilt safety barrier of a maximum of 20% of equity lot size after which the lot size reverts to the original percentage of equity.

The CloseTrades EA will allow you to automatically monitor your total equity on an account and shut down all EA's at a particular nominated level.

The concept of small Take Profits with large Stop Losses is not a proven effective money management principal.

In summary, this is the area you should really be paying most attention in your trading endeavours. The more trades you make the greater the trading costs and you will find that once your trading costs are up around 20% of your profit, you should be examining your trading style. Just keep in mind the conventional returns on investment rarely consistently return more than 10% annually on a consistent basis, so **even if you are only making 1% per month on a compounding basis you are far ahead of most investors**. Don't think for 1 moment that you can average anything like 20% per month. It's the total picture that counts and looking at the big picture on your trading is far more important than those 100% gains.

Be very aware of News Releases even with a view of not trading at all around major releases because the market can whipsaw violently taking out Stop Losses. There will be trading opportunities everywhere in the next couple of weeks but do not be in a hurry when the market starts moving. Beware of false signals! **The Banks prey on impulsive traders** and what seems blatantly obvious can be easy pickings for the bigger traders. Get to understand

fully the Commitment of Traders releases and make sure you are always fully aware on pending news releases.

Obviously my biggest and final idea is to **manage your money. That means keeping good records of your trades**, what worked and what didn't along with relevant comments. There are millions of trading ideas and always keep an open mind. Forex Factory is a respected source of free information and remember to read the commercial threads as many offerings are still free.