MT5 PSAR and MACD EA

A relatively simple EA to follow trends based on PSAR and MACD Histogram. This is experimental, so some elements will be specified as optional so that back-testing can be used to see if they really add value.

The idea is to base entries on the A B C price pattern



A

B

C

Entry point

Histogram >0

at Point C

The beginning of each PSAR runs indicate the price points of A, B and C.

The MACD histogram indicates whether a buy or sell trend is in place. The MACD signal line is not used.

When the rules are met an entry takes place after a retracement as soon as price reaches point B again. The EA should not wait for a candle to open or close once the price reaches point B!

NOTE. I have used the PSAR because it is a very easy visual way to identify the exact values of A, B and C. I know that the PSAR can repaint while a candle is active, which could well have happened In the example diagram being used. If you are aware of another indicator that achieves something similar without repainting, please let me know.

**Entry rules**

These rules are for a buy. Exactly the opposite rules would apply for a sell. Let me know if you want any examples.

At the commencement of a new confirmed PSAR run the price at that point becomes a potential point C.

Rules for a possible buy entry:

Point C must be higher than point A

Point C must be lower than point B

The MACD histogram must be above zero at point C (i.e. the retracement must not be so strong as to move the MACD histogram below zero, indicating a possible down trend.)

*PSAR*

Please provide the usual PSAR inputs for the indicator. There is no need to accommodate different timescales. Just whatever period that applies to the chart being used.

**Trade Management**

*Stop*

The stop should be placed below C by x pips. X to be in input by the user.

X can be zero. If X is zero the stop placement will be at point C.

*Target*

The target will be the distance between B and C plus half the distance between A and C.

e.g. using NZDJPY

Price at B = 82.01

Price at C = 81.71

Price at A = 81.56

B to C = 82.01 - 81.71 = 30 pips

Half of C to A = 81.71 - 81.56 =15/2 = 7.5 pips

Target is 30 + 7.5=37.5 pips

In theory in an uptrend the stop should always be smaller than the target.

*Trailing stop*

Please provide a trailing stop with three inputs,

* Pips in profit to trigger the trailing stop.
* Trail distance in pips
* Trail step. The number of pips the price must move towards the target before the trail is moved again.

*Breakeven stop*

Please provide a breakeven with two inputs

* Profit number of pips when the Breakeven should trigger
* Profit lock. The number of pips of profit that should be locked in.

*Lot size*

Ideally the lot size should be based on the amount being risked and the distance to the stop (including any extra pips added). Or, the lot size can be entered directly, say 0.01.

The EA should provide three inputs.

Risk percentage of spare equity (1% of say £500.00 would be a total to risk of £5.00 on the trade)

Or

A Flat amount. E.g. £10.00 (whatever currency the account is using)

Or

Simple entry of the lot size (ignores the risk based calculation)

If the stop is 20 pips away and the risk amount is £10,00

The lot size should be risking £0.50 per pip. Divide the amount to risk per pip by the pip value to arrive at the lot size

Risk per pip = 10.00/20 = 0.50

In the USDJPY example below the lot size is £6.40.

Lots size for the trade would be 0.50/6.4 = 0.078

Please round down to the nearest lot size unit which would be 7 microlots. ( .07)

If the risk calculation results in a rounded down lotsize of below the minimum allowed for the instrument, no trade should be entered.

*Max stop size*

Please provide and input for MAX stop size in pips, including X. If the stop is greater than the Max allowed, no trade should be entered.

*Min stop size*

Please provide an input of a Min stop size in pips, including X. If the stop is less than the Min allowed no trade should be entered.

*Min MACD size*

Please provide an input for a minimum size of the MACD histogram below point C. If the histogram is smaller than the minimum allowed no entry should occur

*Max trades*

It is possible that a new signal will become valid while a previous trade is still live. Please provide an entry for the maximum number of trades allowed. If that figure has already been reached, no new trades should be allowed.

If more than one trade is allowed, the system should be able to manage multiple trades with their own targets stops, trailing stops etc.

*Use Histogram*

I mentioned at the beginning that this is experimental. I want to be able to swich off the use of the histogram in the entry rules. I can then assess through back-testing/optimising, whether using the Histogram in this way actually adds value for a large number of trades.

Please provide an input: Use Histogram yes/No. If no that element of the entry rules and any Min size should be disregarded. Entries would simply take place using the ABC pattern rules.

*Trend change*

If a new PSAR run is formed, then any previous potential trade which has not resulted in an entry should be scrapped and a new entry assessed.

Although the rules are simple, quite a few new PSAR runs will be ineligible for various reasons.

**Additional general entry rules**

*Entry times allowed*

Please provide an input for an entry window when entries are allowed. Outside that Window no entries should take place

Entry time refers to the opening time of the candle.

Inputs

* Entry time begins Hour
* Entry time begins Minutes [past the hour]
* Entry time ends Hour
* Entry time end Minutes [Past the hour]

An entry time of 08 hours and 00 minutes means that an M15 candle that opened at 07.45 and closed at 08.00 would not be allowed for an entry.

An M1 candle that opened at 08.00 and closed at 08.01 would be eligible for an entry, if it were an M1 chart being used.

*Max Spread*

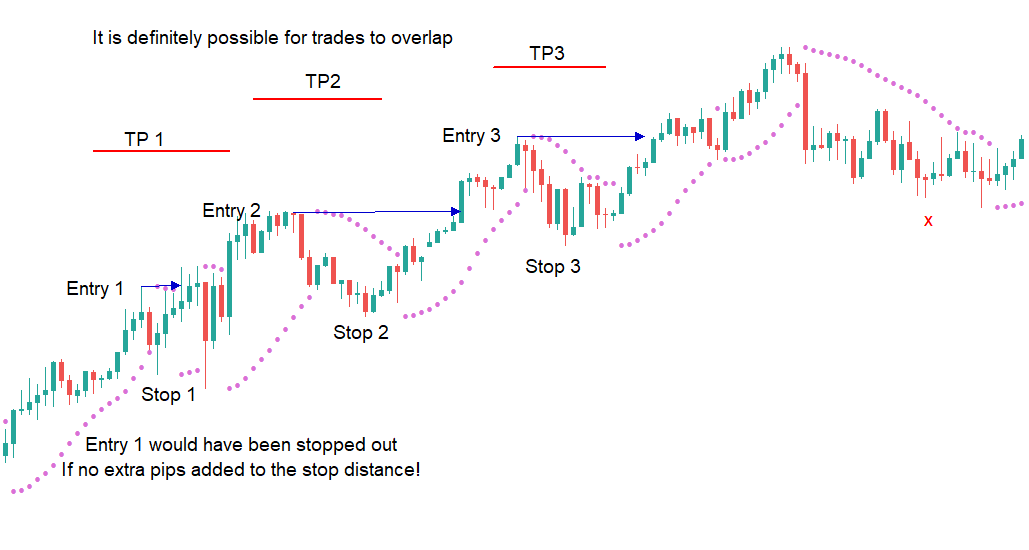
Please provide an input for a max spread allowed to make sure that trades don’t get caught by the spread itself at the moment the trade would be entered.

*Days of the week*

Please provide an input for days of the week (Monday to Sunday) allowed/disallowed.

Example USDJPY M15 Monday 1 November

Just an illustration TP positioning not calculated accurately

**General**

Please provide both the ex5 and mq5 files and also acknowledge that the copyright/IP is mine.

Thanks,

Ian Fraser

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