Analyze of Forex market

We are trying to find out fully automated strategies (Algo strategies) which have the most possible profitable performance in the future. We use StrategyQuant X software to generate strategies. The process is as follows: we kept the data from 2018/SEP/01 until the date of experiments (2023/APR/11) as Hold-out[[1]](#footnote-1) data. Every evaluation shall be valid on this part. The more strategies in hold-out means more probability to choose a strategy in real account which will keep its performance.

Question to be considered:

1. Does the market have any impact on the total strategies passing OOS test(s)
2. Do the building blocks have any impact on the total strategies passing OOS test(s)
3. Does the timeframe have impact on the total strategies passing OOS test(s)
4. Does the use of validation and test data and its segmentation in training have impact on the total strategies passing OOS test(s)
5. Does robustness test on the data prior to the start date of training or post to the end date of training have any impact on the total strategies passing OOS test(s)
6. Does robustness test on other markets have any impact on the total strategies passing OOS test(s)
7. Does robustness test on other timeframes have any impact on the total strategies passing OOS test(s)
8. Does Monte Carlo tests and slippage test have any impact on the total strategies passing OOS test(s)
9. Does any form of optimization like WFM improves the reliability of the strategy and causes more confidence of its being profitable in the future
10. Do strategies build upon an idea in AlgoWizard perform better after optimization than the ones found in builder

To find an appropriate answer to the questions above we design sets of experiments and analyze the results.

The first experiment is designed to answer whether the ticker[[2]](#footnote-2) have any impact on the sum of profitable strategies. We choose 8 currency pairs namely EURUSD, GBPUSD, USDCHF, USDJPY, AUDCAD, AUDUSD, NZDUSD, USDCAD and build 1000 strategies for each pair. By keeping all the other parameters fixed the number of strategies which stay profitable in hold-out data gives us a ratio of how probable was to choose a strategy from the found ones which continues to produce profit. The reason for choosing these pairs is that they consist of both majors and crosses so if there is any meaningful difference in the count of found strategies, we can attribute it to the category as well.

For each pair we used the following setting:

Timeframe: H1

Precision: selected timeframe only with higher timeframe back test evaluation

Training start date: 2010/Jan/01

Training end date: 2018/AUG/30

Building blocks:

Indicator: Ichimuko (8 signals)

Stop/Limit entry: 29 blocks (default)

Order Type: Stop (enter at stop)

Exit types: Exit after Bars, Profit Target, stop Loss, Trailing Stop, L Trailing Activation

Cross-check: off

All other parameters like Genetic options kept as default. What we are interested in is to find how many strategies have profit factor more than 1 from 2018/SEP/01 on.

1. Based on TipToeHippo white paper ‘how to avoid overfitting using robustness testing’ page 4 [↑](#footnote-ref-1)
2. For example, the currency pair in Forex or metals in Futures [↑](#footnote-ref-2)