Backtesting Analysis

Understanding The Benefits & Limitations

In this webinar we will scope back-testing as an analysis tool, we will examine why it is used for portfolio analysis and we will look into the inherent limitations.

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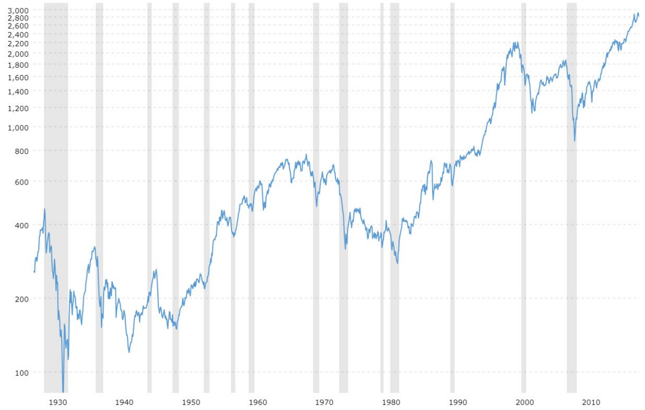
What Is Backtesting?

Understanding the limitations & the benefits

Backtesting is a term used in modeling to refer to testing a predictive model on historical data

- In a trading strategy or investment strategy, backtesting seeks to estimate the performance of a strategy if it had been employed during a past period.
- Backtesting is the general method for seeing how well a strategy or model would have done ex-post.
- Backtesting assesses the viability of a trading strategy by discovering how it would play out using historical data.
- If backtesting works, traders and analysts may have the confidence to employ it going forward.



Why Backtesting?

#1 - Prove Your Strategy Works

- It's difficult to create a strategy or trading plan that really works without extensively testing it over historical data, first
- The amount of time it takes to forward-test strategies is extremely limiting
- Without backtesting you are essentially trading blind

Why Backtesting?

#2 - Optimize Your Approach

- Through backtesting trading strategies you can painlessly determine whether or not a strategy is for you without losing any money in the process.

- Through backtesting you can identify your strategy's flaws and introduce new filters that increase its profit potential and reduced its drawdown.

Why Backtesting?

#3 - Engender Trading Ideas

- Backtesting is like a mirror to reality
- With backtesting you can come up with an idea and then put it through the grinder, whatever comes out is what you pay attention to
- The feedback loop allows you to tweak and perfect your approach until you find a set of filters, rules, or as we at Capitalise.ai refer to conditions, that not only work, but play to your psychological strengths.

Why Backtesting?

#4 - Gain Confidence

- Know what to expect from your strategy
- Expectations will help traders in decisive moments, to make key decisions
- Your backtest strategy’s performance is a good marker to compare with to your live strategy.

Limitations

#1 - Data

- The quality of a backtest is determined by the level of details and quality of the historical market data used for the test
- Historical market data could be one dimensional (e.g. market prices only), or could be multidimensional and taking in consideration different kinds of datasets such as prices, news events market events etc

Limitations

#2 - Market Effects

- When running backtesting, none of our simulated trades have an effect on the markets (e.g the effect of very large short order on a specific stock)

Limitations

#3 - Over Fitting

- We run the potential of overfitting, when we decide on our trading scenario and adjust its parameters, what we might inadvertently do is overfit our criteria to the historical data set at hand.

- A possible solution for such a scenario is to test the strategy on multiple instruments/data sets.

Rules For Backtesting

- Take into account the broad market trends in the time frame a given strategy was tested
- Take into account the universe in which backtesting occurred
- Determining optimal position sizing and money management
- Backtesting is not always the most accurate way to gauge the effectiveness of a given trading system

ENTRY

If **AAPL RSI**(14, 1h, Close) crosses **above 60** then **buy 10 AAPL** and

EXIT

Close position at trailing stop of **1%** #

RUN STRATEGY

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