6 Reasons Why Backtesting Your Portfolio Is Essential

No matter what you choose to invest in, the aim is always to put the odds in your favour. You can do this by diversifying and employing various techniques to give yourself the greatest chance of success. One approach that's considered essential is backtesting.

In this blog post, we'll explain what backtesting is and why it's vital.

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What is backtesting

Backtesting is an effective and valuable practice to ***assess how viable your trading strategy is by using historical data.***

This is a technique that's utilised in investment portfolios on the basis that if an investment strategy has worked well in the past, it's likely to be effective in the future.

Of course, the same theory works in reverse too, i.e., if the strategy was poor, it's likely to produce sub-standard results again in the future.

Analysts and traders, including portfolio managers, use backtesting to ***assess profitability and risk.*** They can then make data-based decisions before any capital is invested.

Needless to say, this approach is not always guaranteed to work, but anything that can put the odds in your favour is worth thinking about, right?

From ETFs to cryptos, the investment assets and strategies you can backtest

Whether you're someone who likes to invest in cryptocurrency or you spend your days trawling the ETF database, ***you can backtest any strategy that can be expressed as a set of rules.***

For instance, a value investor could be interested in a strategy that chooses ten stocks every year with the lowest price-to-earnings ratio.

Similarly, an investor that depends on technical analysis may consider purchasing a stock when its fast moving average crosses above the stock's slow moving average.

These are two examples of strategies that follow a consistent set of rules, which can be simulated with the use of historical data.

The benefit of rules-based investing is that it takes your emotions out of the equation. Whenever you make a decision to purchase or sell a stock, logic is what drives your call. This will stop you from making behavioural errors, such as panic buying or selling due to FOMO, the fear of missing out.

How do traders use backtesting?

Backtesting is typically used to enable traders to ***predict whether a trading strategy will be successful*** when applied across a market or a specific security.

Backtests can also be beneficial in finance and investment areas aside from strategy development. For instance, a portfolio manager is able to ***leverage backtests to a portfolio to figure out the best portfolio allocation*** and to optimise their rebalancing strategies.

Unbiased data is critical when carrying out a backtest

It's imperative that you attempt to unearth unbiased data so that your strategy's performance is not distorted.

In some cases, staying away from biases altogether may not be possible, yet you can mitigate their effects to get as much transparency and reliability as possible.

Some of the different types of bias that can influence performance include:

- **Look-ahead bias** – This bias is when a trader accidentally includes dates in the future when testing. This mistake can occur due to improper parameter calculations or technical bugs. You can avoid such situations by testing and double-checking your strategy before it goes live.
- **Optimization bias** – Optimization bias describes scenarios whereby traders can introduce extra parameters

and win trades until their strategies perform in a manner that reaches their expectations. You can avoid this by allowing your strategy to operate based on real-world data. If you don't see the results you were expecting, you can stop testing and start on a new plan instead.

- **Psychological tolerance bias** – This references a trader carrying out a backtest for a long period of time to enhance the performance of their strategy, only to then trade on a short-term basis. You can avoid this by concentrating on a plan that matches your timeframe.
- **Survivorship bias** – Finally, this occurs when you only factor in active stocks and overlook stocks that are no longer active. You can avoid this by utilising recent data in your backtests and monitoring delisted stocks as part of your strategy.

Why should you backtest your portfolio

Now that you understand what backtesting is and how it can be used, let's take a look at some of the reasons why backtesting is essential for investors.

1. Backtesting eliminates emotions

There's only one place to begin, and this is with the ability to take emotions out of the equation!

Have you ever been in the situation where you're screaming at yourself inside; *"how could I have lost so much on this trade? It looked so good"*

You're not alone. Many traders can recall instances like this. This is because one of the biggest issues a lot of rookie traders have is that they let their emotions take over, which results in buying or selling in a panic. Never a wise move.

Rather than making a jerk reaction to a big rise or fall, you'll often find that doing the complete opposite comes recommended.

A backtest enables you to stick with your trading plan. You'll be emotionally detached, which is a good thing.

2. You can exploit the law of large numbers

Your computer can supervise and trade hundreds of strategies with ease. This means you can exploit the law of large numbers and ***you can diversify into types of strategies, directions, asset classes, and time frames.***

When trading, one of the most important keys to success is low correlation amongst your trading strategies. *Why?* If you lose money in one strategy, you may gain profit in another strategy if it's not correlated. It's a case of not putting all of your eggs in one basket.

3. You'll get a much better understanding of the market

Researching investment trends and strategies can enable investors to get a better comprehension of the market.

You'll be able to leverage valuable data, which can help you to make wise investment decisions.

If you're an entry-level investor, ***backtesting acts as an imperative learning opportunity***, enabling you to further your knowledge so you can be more confident in your decisions.

4. Have confidence that your strategy works (or ditch a strategy that isn't working)

In any walk of life, confidence is key. We all want to make assured decisions, knowing that the outcome is going to be what we expect.

If you're developing a new trading strategy, backtesting is essential. ***Within a single week, you'll be able to test numerous strategies across different markets.*** If you need to, you can develop an entirely new trading plan within a matter of weeks.

Backtesting gives you the ability to collate huge amounts of information and data about your strategy in minimal time. Armed with this information, you can then ***understand whether or not your strategy is going to make you money.***

Through testing, you can either move forward with confidence, knowing your strategy works, or you can ditch a strategy that's unlikely to bring much profit your way.

5. Make more money

Ultimately, backtesting is all about improving your performance and achieving more success, meaning more profit.

By frequently backtesting, ***you can constantly review your strategy to ensure it's effective.***

After all, what's a big money maker today may not necessarily be the right approach in a few month's time, which is why you need to keep backtesting to ensure success.

6. Identify risks and implement risk

management techniques

Finally, another reason why backtesting comes highly recommended is because it helps you to get an understanding of any risks your algorithm presents.

By looking at historical data and backtesting your approach, you'll be able to uncover any road blocks that are likely to come your way.

This enables you to be prepared. You can put provisions in place to ensure that risk is minimised as much as possible.

Ensure success by backtesting ideas to reduce risk

As you can see, there are many benefits associated with backtesting your portfolio. This is a great way of making sure your portfolio is solid so you can reduce risk.

Backtesting is also powerful because it enables you to take emotion out of the equation. This is one of the things investors, especially newbies, struggle with the most. However, by backtesting, you can ensure decisions are made based on logic rather than fueled by emotions.