Dr David Moche Explains About the Types of Algorithmic Trading Strategies and How Quantum Computing Will Help

LONDON, UNITED KINGDOM, May 4, 2021 /EINPresswire.com/ -- There are essentially five distinct sorts of trading strategies with regards to automated or algorithmic trading. They are:

1. Momentum
2. Mean reversion
3. Market-making
4. Statistical arbitrage
5. Sentiment-based quantitative methods or technical indicators


Dr David Moche

Perhaps the most straightforward strategy is just to follow the market trends with a purchase or sell order generated based on the set of conditions fulfilled by technical pointers.

Essentially, you need to put together your algorithmic trading strategy based on the market trends which you determine by utilizing statistics. This strategy can also look at historical and current data in anticipating weather trends are probably going to continue or reverse. Another fundamental type of algorithmic trading strategy is the mean reversion systems, which work under the assumption that markets are evolving. 80% of the time, individuals who utilize this strategy typically calculate an average asset price utilizing historical data and take trades with the expectation of the current price returning back to the average price.

A market maker or liquidity supplier is an organization or a person that quotes both a buy and a selling price in a financial instrument or commodity held in inventory, expecting to make a profit on the offer spread. Market making gives liquidity for securities that are not often traded on the stock exchange. The market maker can increase the demand-supply equation of securities.

Statistical arbitrage, or stat darb, is related to the statistical mispricing of at least one asset based on the expected value of these assets. Stat Darb is also a subset of mean reversion strategies as a trading strategy. Statistical arbitrage is a vigorously quantitative and computational way to deal with equity trading.

One of the most widely recognized stat AAB strategies is Beyer's trading, where a pair of cointegrated assets is considered. The failing asset is expected to rise and is purchased while the performing asset is expected to fall in value and is sold.

Statistical arbitrage has become a significant power at both hedge funds and investment banks. Many bank proprietary operations now revolve to varying degrees around statistical arbitrage trading.

Sentiment based, have you ever tried trading based on sentiment? All things considered, this strategy can do it for you. A news-based algorithmic trading system is typically linked to newswires, automatically producing trade signals. Depending upon how actual data runs out in contrast to the market consensus or the past data, as you've probably guessed, it takes a strong foundation in financial market analysis and PC programming to have the ability to build complex trading algorithms. Quantitative analysts or quants are regularly trained in Python C or Java programming before they can develop algorithmic trading systems.

So how will quantum computing revolutionize trading?

Quantum Trading presents a compelling new way to look at technical analysis and will help you use the proven principles of modern physics to forecast financial markets.

Using the theory of relativity and quantum physics is required to make sense of price behaviour and forecast intermediate and long-term tops and bottoms.

Classical algorithms take a long time to process complex problems like those used in the trading world. While quantum algorithms can manipulate the same problem in a fraction of the time.

With quantum machine learning, you can take both the number of vectors and their dimensions and have an outcome at an exponential increase in speed over classical algorithms. This will mean that traders can make decisions quicker and with more accuracy.

So How is Qfinity Using Quantum Algorithms to Help FVP Trade Customers?

Qfinity Labs uses a quantum algorithm to estimate credit risk more efficiently than Monte Carlo simulations can do on classical computers.

We estimate the economic capital requirement, i.e. the difference between the Value at Risk and the expected value of a given loss distribution. The economic capital requirement is an important risk metric because it summarizes the amount of capital required to remain solvent at a given confidence level.

We implement this problem for a realistic loss distribution and analyze its scaling to realistic

problem size. In particular, we provide estimates of the total number of required qubits, the expected circuit depth, and how this translates into an expected runtime under reasonable assumptions on future fault-tolerant quantum hardware.

Using this modelling we have developed 3 trading algorithms according to the risk to reward ratio:

With F3 being the highest risk to reward strategy for the more experienced investors and F2 and F1 reducing the risk to reward ratios depending on the customer's risk appetite.

Algorithm | Returns | Capital Protection
F1 | 2-4% | 100%
F2 | 4-6% | 95%
F3 | 6-10% | 90%

We have developed these algorithms to ensure that FVP Trade customers of all experience levels can take advantage of quantum technology in their trading portfolio.

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