When combining indicators and patterns to develop a trading strategy, we aim to leverage multiple signals that complement each other, increasing the probability of accurate predictions. In this case, we are combining the Cup and Handle pattern with the Keltner Channel.

The Cup and Handle pattern is a bullish continuation pattern that typically signals a potential upward trend in prices. It consists of three main components: the left side of the cup, the cup itself, and the right side of the cup. The pattern suggests that after a significant price increase, there is a period of consolidation forming the cup shape, followed by a breakout to new highs in the right side of the cup.

To detect the Cup and Handle pattern, we consider specific criteria:

The high of the pattern should form a rounded shape resembling a cup.

The low of the pattern should form a handle shape that retraces slightly from the high.

The handle should not exceed more than 50% of the depth of the cup.

The breakout occurs when the price exceeds the resistance level formed by the high of the cup.

The Keltner Channel is a volatility-based indicator that helps identify potential price breakouts. It consists of an upper band and a lower band, which are calculated using the Average True Range (ATR). The upper band represents a potential resistance level, while the lower band represents a potential support level.

By combining the Cup and Handle pattern with the Keltner Channel, we aim to filter potential breakouts based on the pattern's bullish continuation and the confirmation provided by the Keltner Channel's resistance level.

Limitations:

False signals: No trading strategy is foolproof, and false signals can occur. The Cup and Handle pattern may sometimes fail to indicate a continuation of the upward trend, leading to losses.

Market conditions: The strategy assumes that the market follows certain patterns and is influenced by specific indicators. However, market dynamics can change, rendering certain patterns less effective.

Subjectivity: Determining the Cup and Handle pattern can be subjective, as different traders may interpret the shape and depth of the cup differently.

Over-optimization: Optimizing the strategy based on historical data can lead to overfitting, where the strategy performs well on past data but fails to generalize to new data.

Cumulative Returns: 3.576265497506406

Maximum Drawdown: 0.0

Sharpe Ratio: 2.3283367493448646