Analysis of Autocorrelation

# Time Frame: 1981~2022

# Target: BTC, ETH, SOL, XRP, SPY, HSI

# Process:

# Part 1: Autocorrelation analysis of the Close Price

# Part 2: Autocorrelation analysis of the Percentage change of the Price

# Part 3: Autocorrelation analysis by Ljung-Box Test

# Part 4: Autocorrelation analysis by Breusch-Godfrey Test

# BTC

A picture containing background pattern

Description automatically generatedChart

Description automatically generated

# ETH

Background pattern

Description automatically generatedChart

Description automatically generated

# SOL

Background pattern

Description automatically generatedChart, histogram

Description automatically generated

XRP

A picture containing background pattern

Description automatically generated Chart, histogram

Description automatically generated

SPY

Background pattern

Description automatically generated A picture containing chart

Description automatically generated

SPY(2019-2022)

Background pattern

Description automatically generated Chart, box and whisker chart

Description automatically generated

HSI (2017-2022)

Background pattern

Description automatically generated Chart

Description automatically generated

Ljung-Box Test

Graphical user interface, text, application, email

Description automatically generated Graphical user interface, text, application, email

Description automatically generated

For time lag=1, only BTC, ETH, SPY and SPY\_2019 exists autocorrelation at significance level =0.01, and SPY seems to have much stronger autocorrelation given by the p-value.