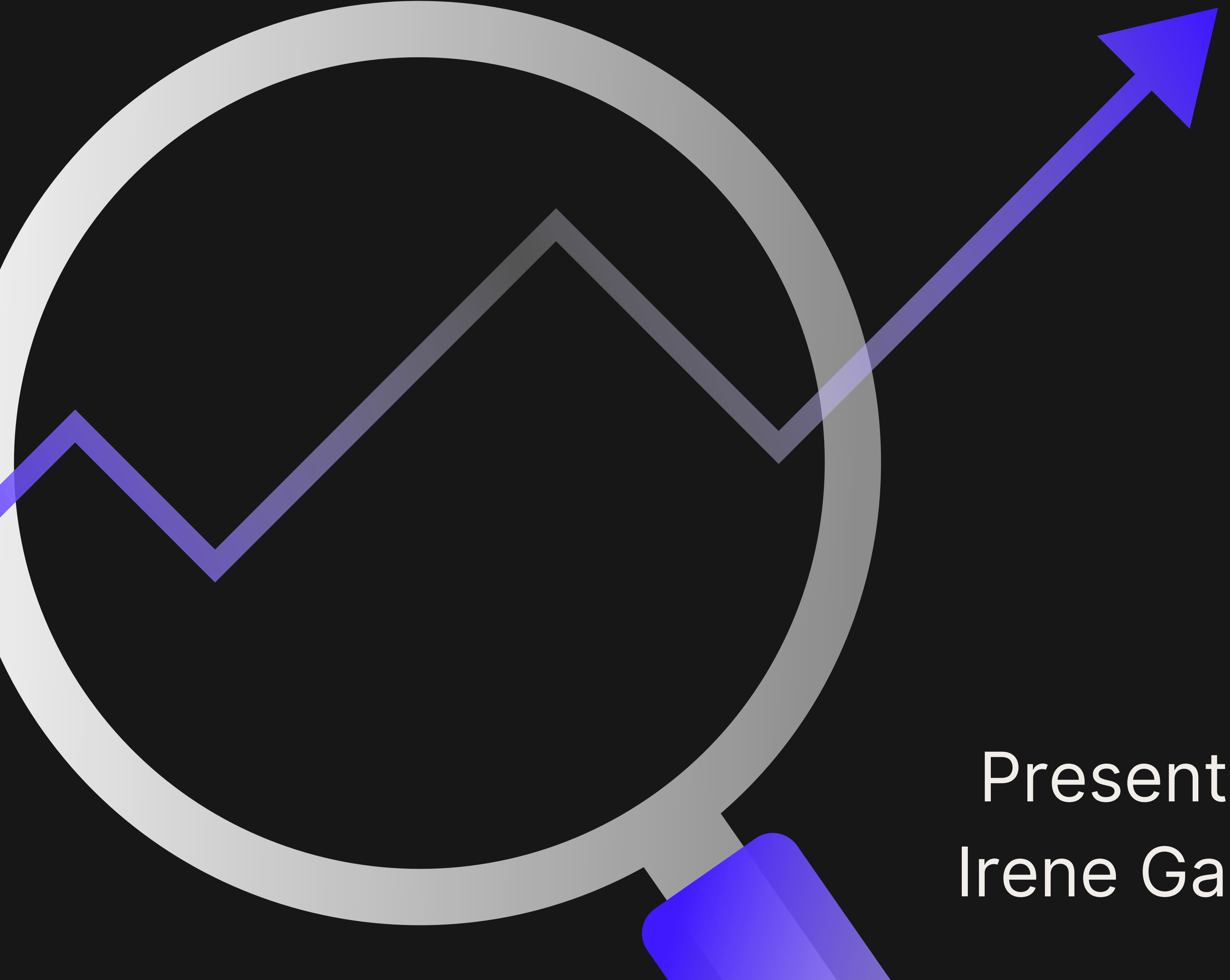
Understanding The

Influence of economic indicators in stock markets



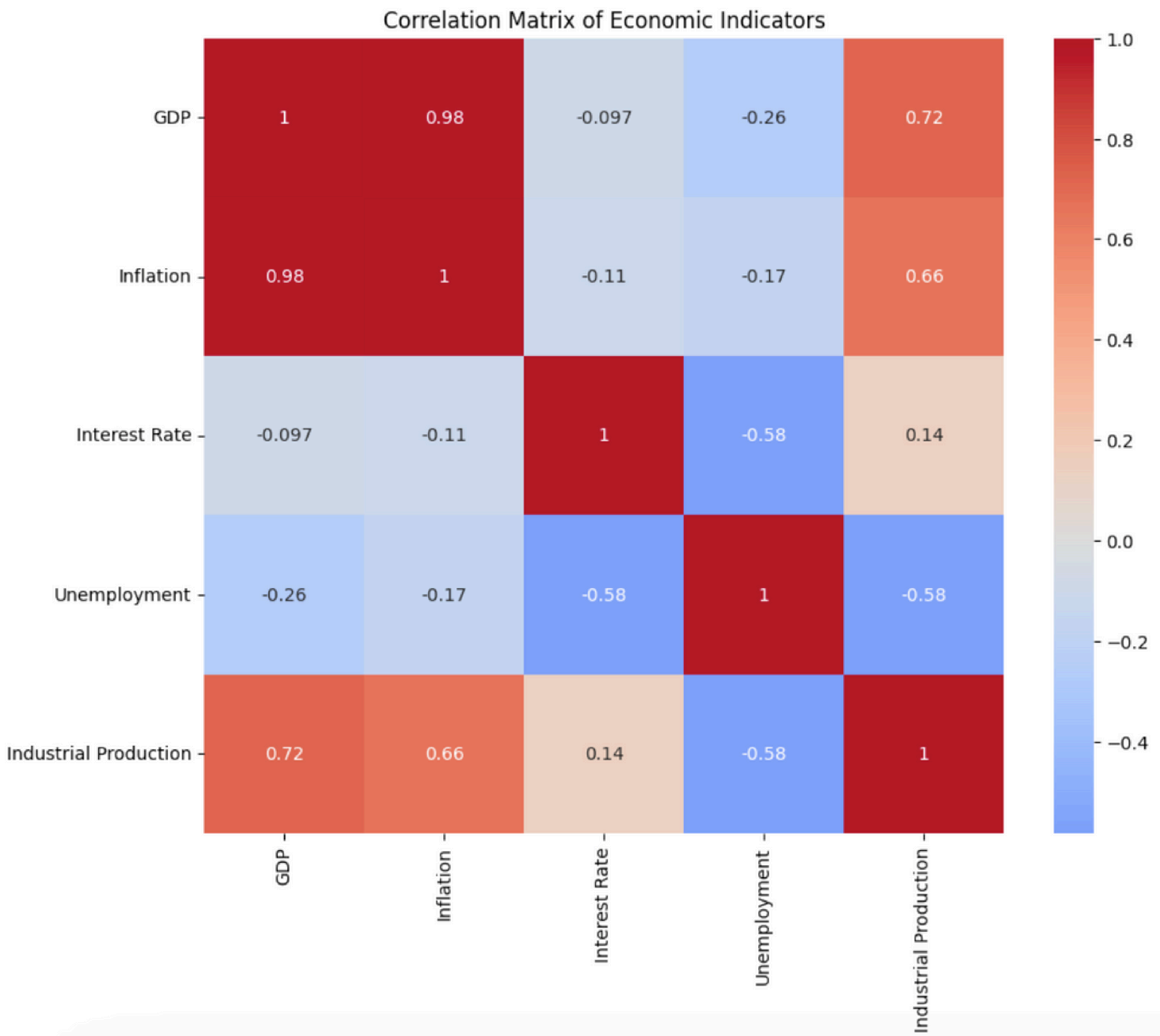
Presented by Daniela García,
Irene Gauna and Clara Gallego

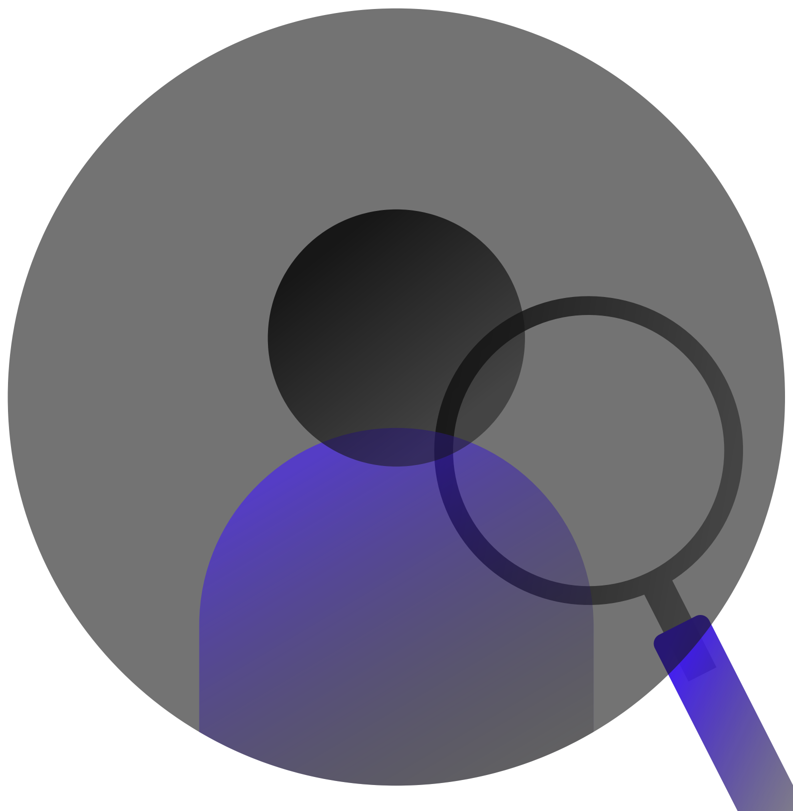
Economic Indicators

- GDP
- Unemployment
- Inflation Rate
- Interest Rate
- Consumer Sentiment Index
- Industrial Production Index

Federal Reserve Economic Data (FRED)

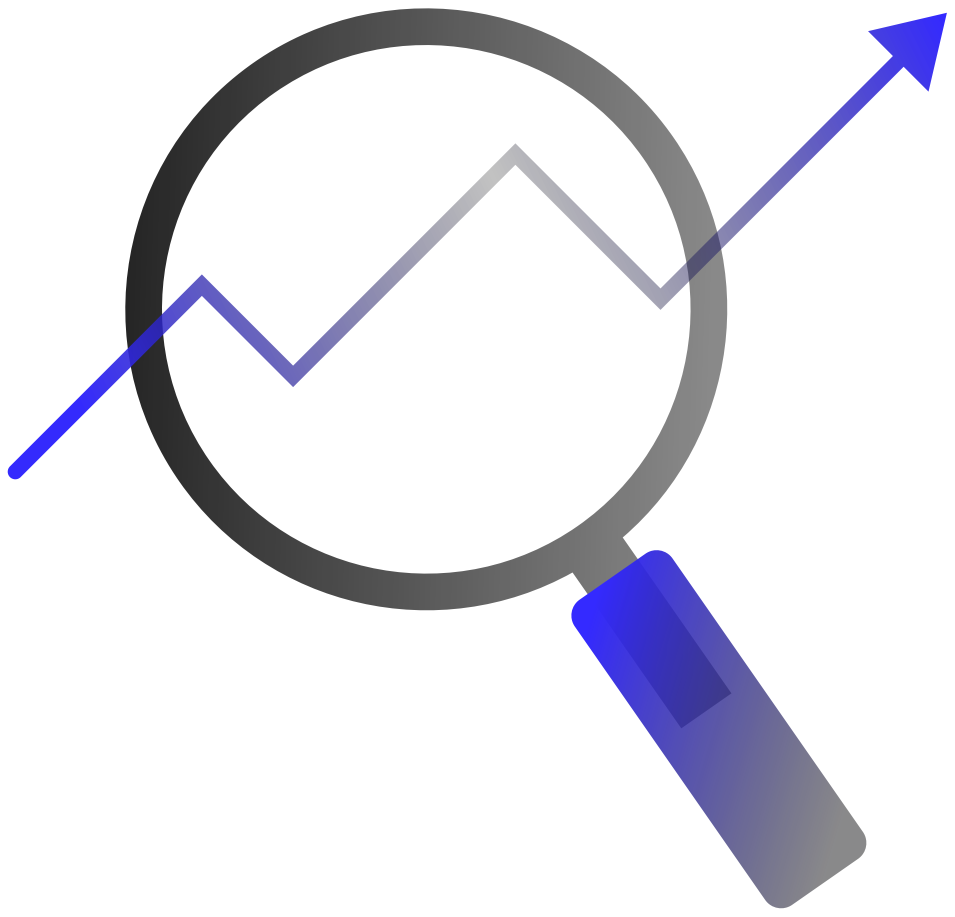
Correlation of Economic Indicators





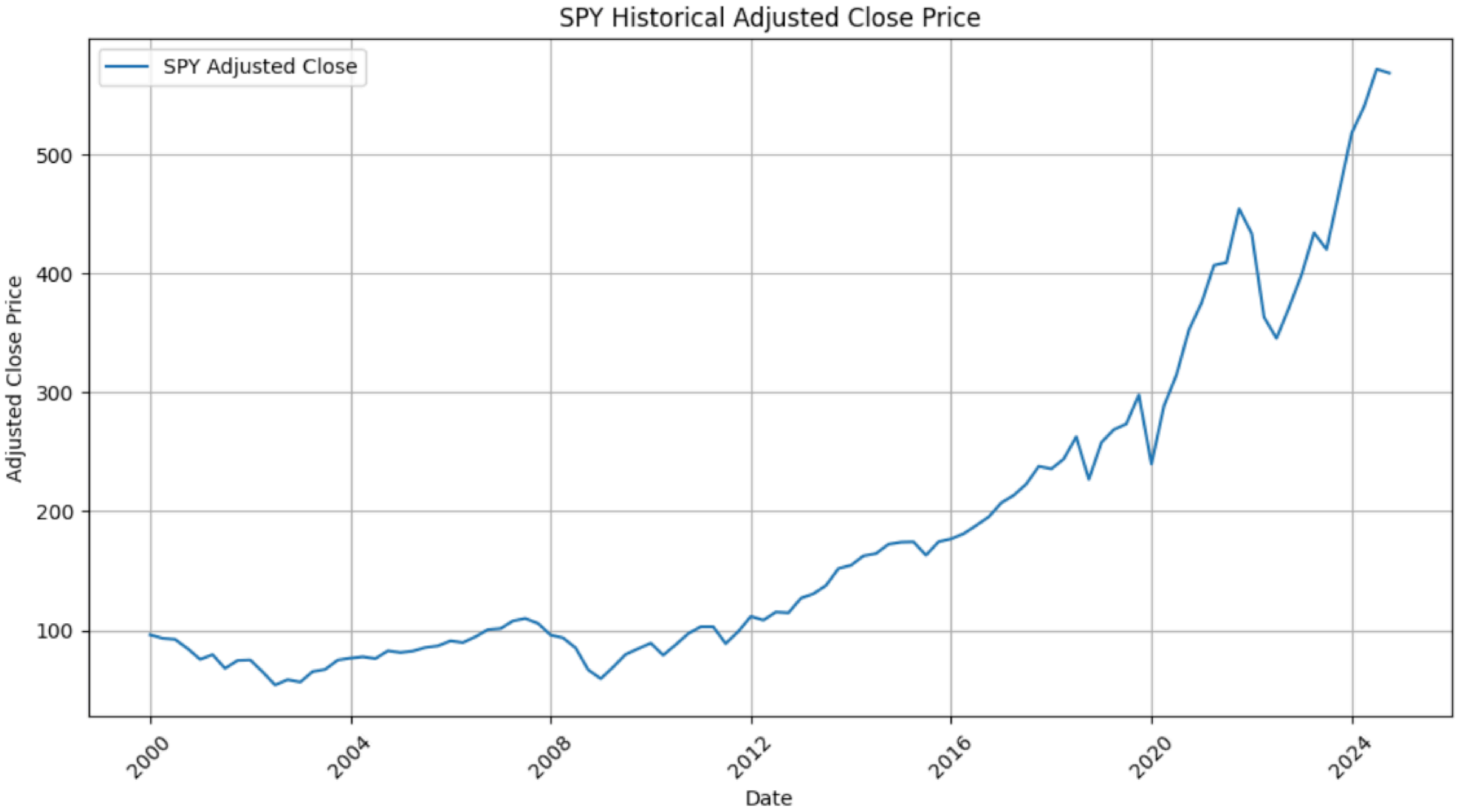
Stock Market

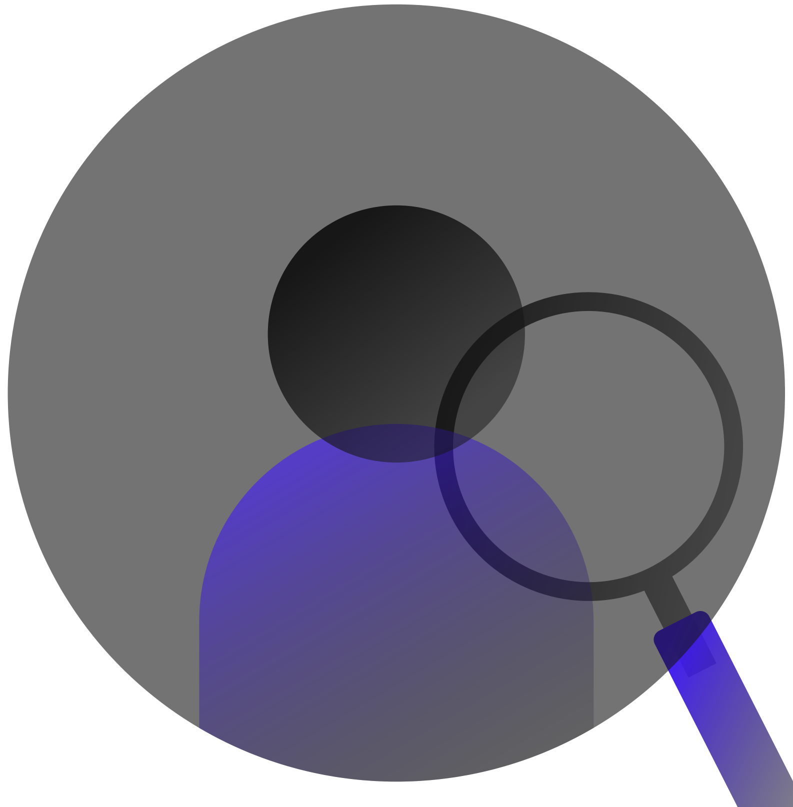
- SP500 (SPY)
- Technology (XLK)
- Health Care (XLV)
- Financial (XLF)
- Consumer Discretionary (XLY)
- Consumer Staples (XLP)
- Energy(XLE)
- Industrial(XLI)
- Materials (XLB)
- Utilities (XLU)
- Real Estate (XLR)



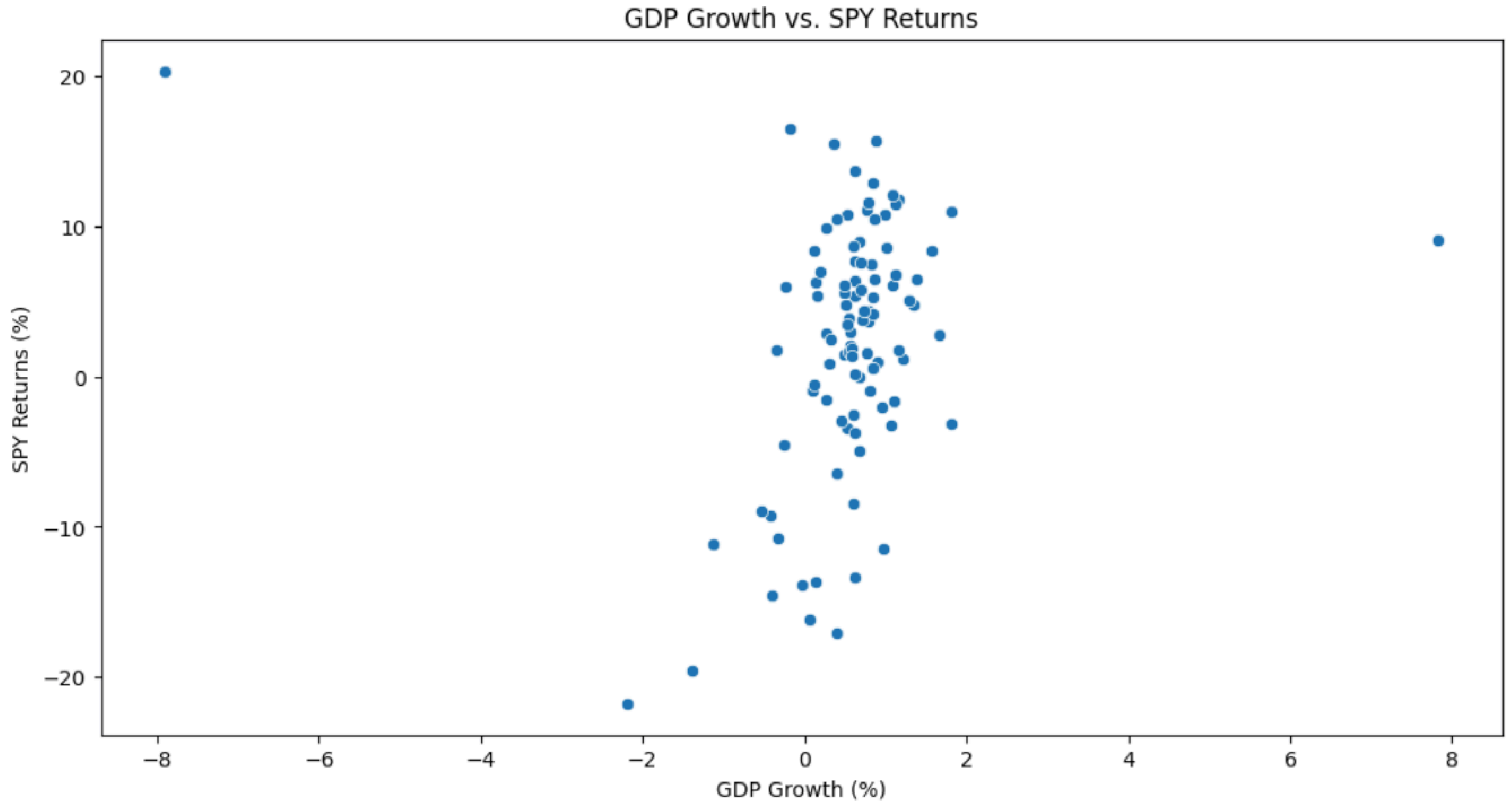
→ Yahoo Finance

Historical of SP500



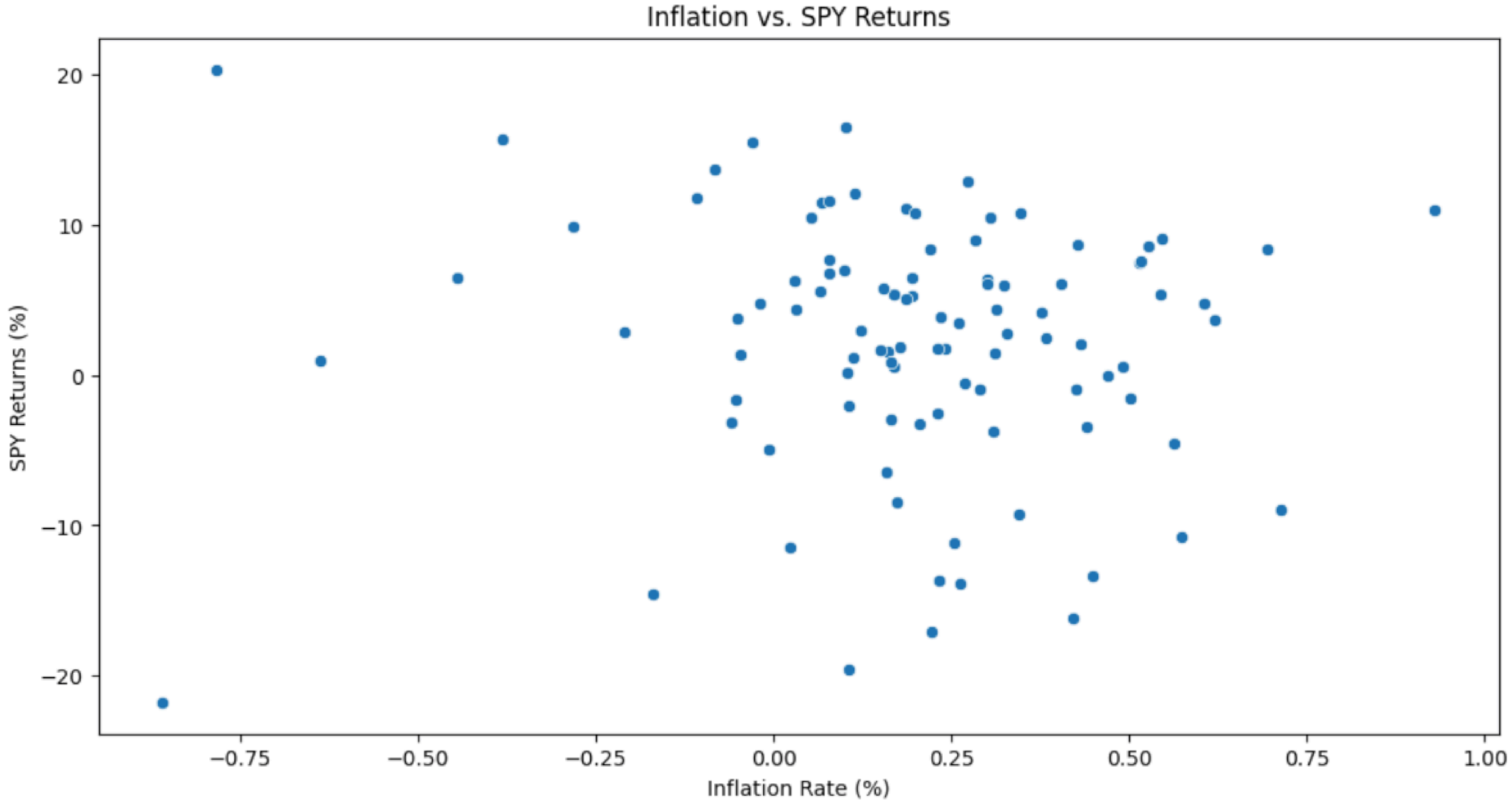


Impact of economic growth on stock market returns



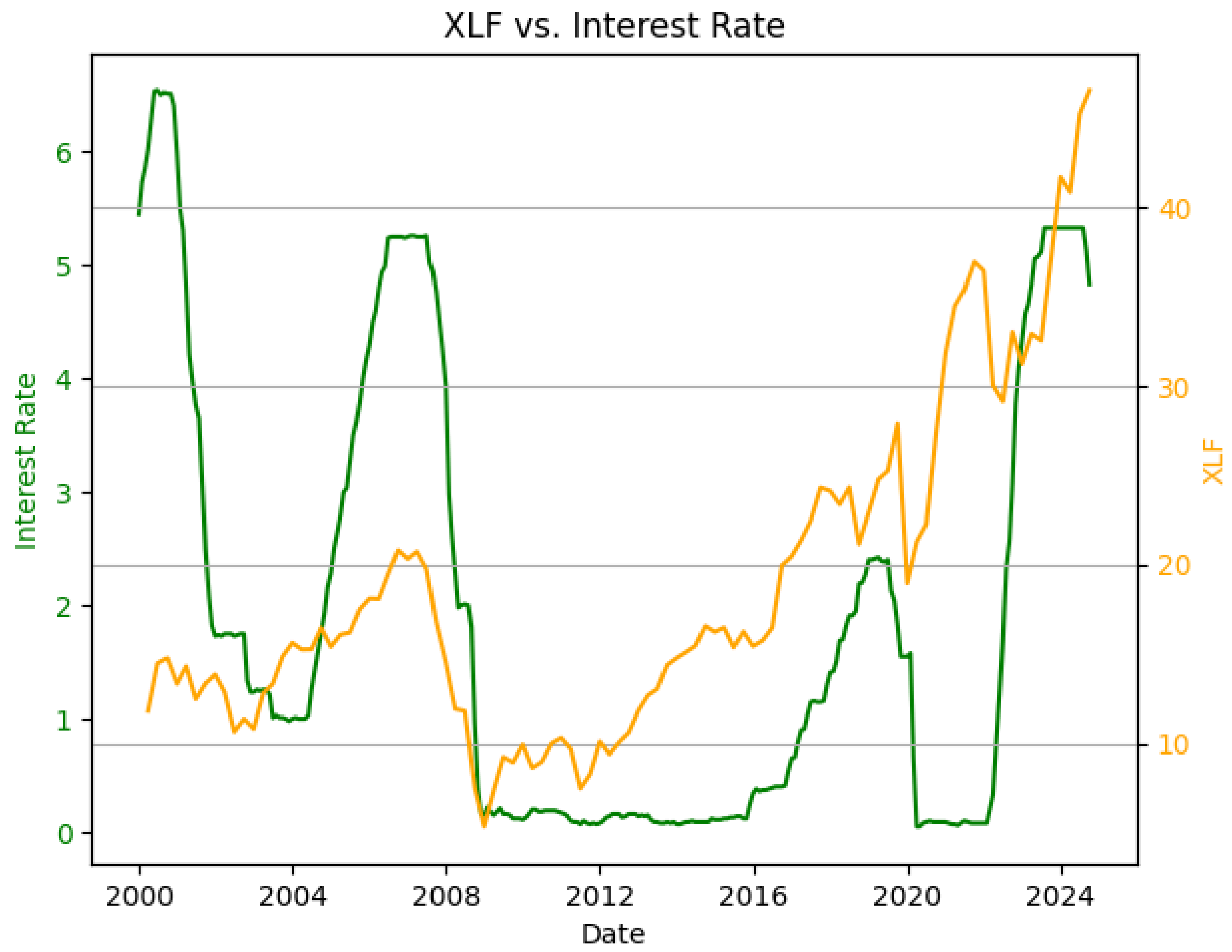
SP500	0.136
TECHNOLOGY	0.058
HEALTHCARE	0.095
FINANCIAL	0.166
DISCRETIONARY	0.065
STAPLES	0.218
ENERGY	-0.045
INDUSTRIAL	0.185
MATERIALS	0.122
UTILITIES	0.188
REAL ESTATE	0.002

Inflation and stock market valuation



SP500	-0.053
TECHNOLOGY	-0.066
HEALTHCARE	-0.014
FINANCIAL	0.007
DISCRETIONARY	-0.117
STAPLES	-0.024
ENERGY	-0.073
INDUSTRIAL	-0.073
MATERIALS	-0.038
UTILITIES	0.015
REAL ESTATE	-0.055

Interest Rates and ETF's market valuation



SP500	-0.174
TECHNOLOGY	-0.192
HEALTHCARE	-0.203
FINANCIAL	-0.256
DISCRETIONARY	-0.117
STAPLES	-0.096
ENERGY	-0.108
INDUSTRIAL	-0.109
MATERIALS	-0.161
UTILITIES	0.025
REAL ESTATE	-0.360

Unemployment Rates and ETF's market valuation

SP500	-0.067
TECHNOLOGY	-0.139
HEALTHCARE	0.103
FINANCIAL	-0.056
DISCRETIONARY	0.182
STAPLES	-0.030
ENERGY	-0.119
INDUSTRIAL	0.027
MATERIALS	0.107
UTILITIES	-0.045
REAL ESTATE	-0.215

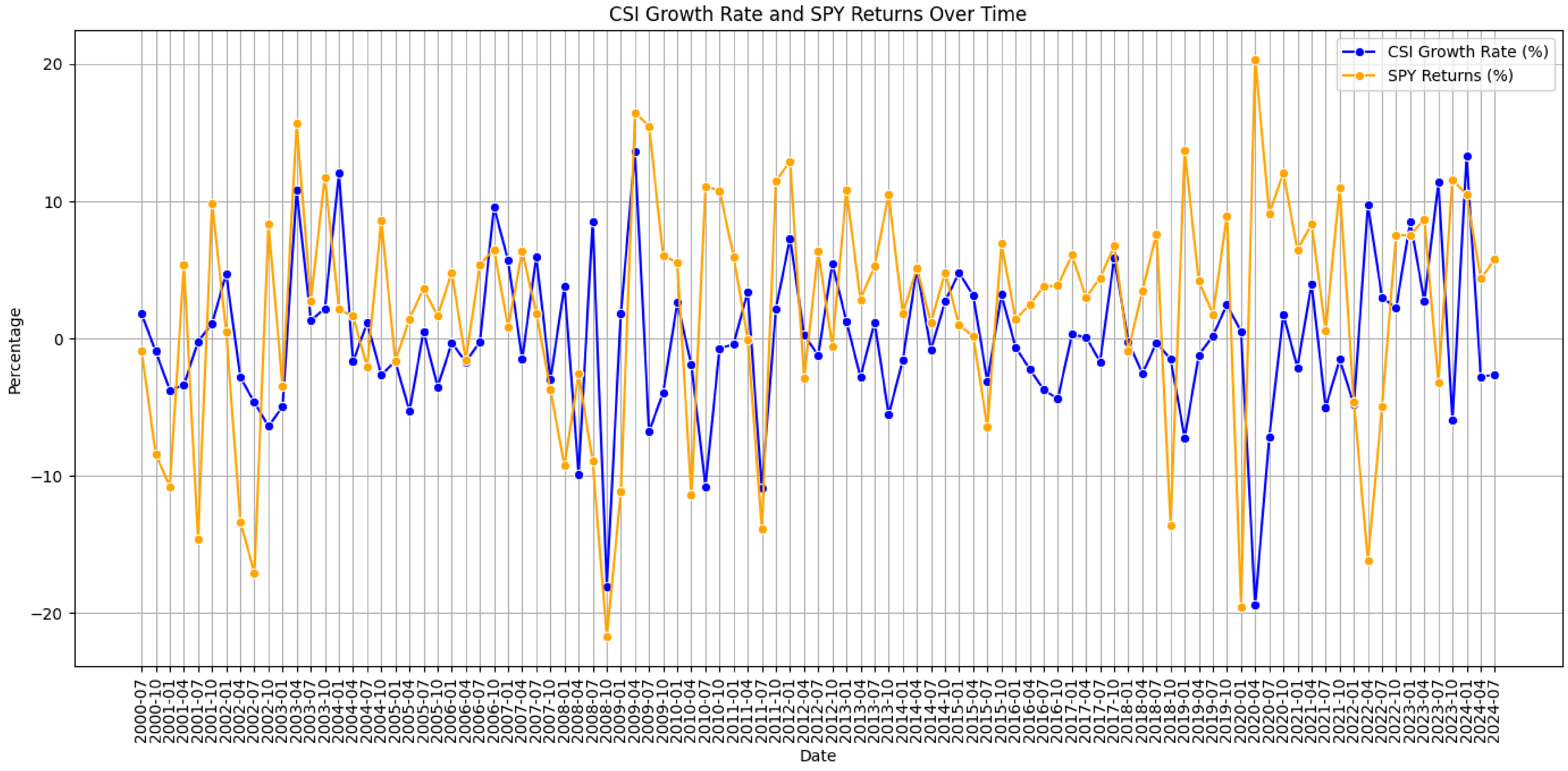
Consumer Sentiment Index

Measure of how optimistic or pessimistic consumers feel about the economy's current and future conditions

- Index
- Survey based: representative sample US consumers - University of Michigan
- Monthly

Economic Significance: The Consumer Sentiment Index is a leading indicator for economic activity. High consumer sentiment typically correlates with stronger consumer spending, which drives a large portion of the U.S. GDP, while low sentiment may signal economic downturns or recession risks.

Consumer Sentiment Index and Stock Market Returns



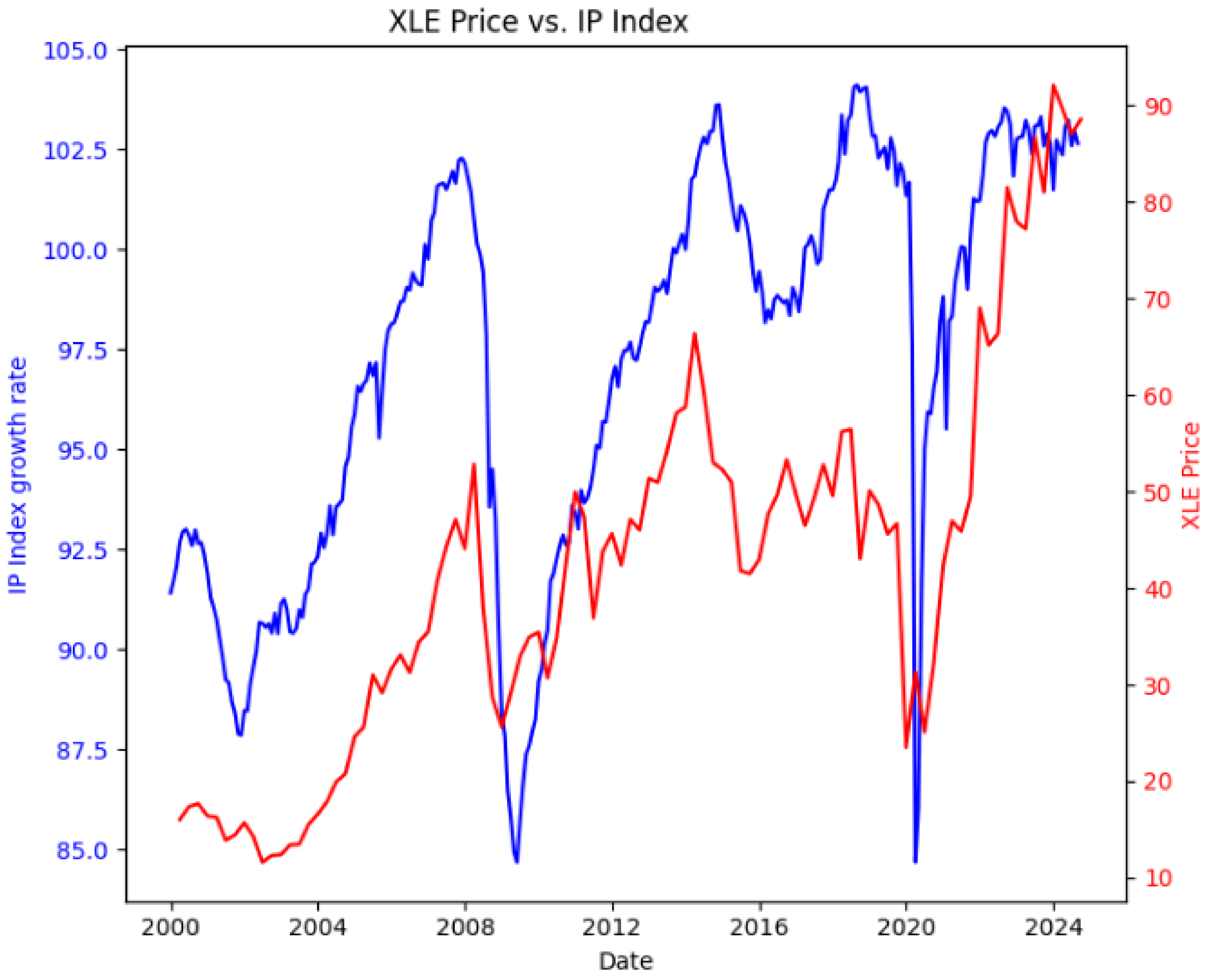
SP500	-0.062
TECHNOLOGY	-0.052
HEALTHCARE	-0.099
FINANCIAL	-0.030
DISCRETIONARY	-0.073
STAPLES	-0.109
ENERGY	-0.025
INDUSTRIAL	-0.050
MATERIALS	-0.130
UTILITIES	0.000
REAL ESTATE	-0.090

Industrial Production Index

Measures the real output of the manufacturing, mining, and utilities sectors in the U.S. It reflects the volume of goods produced and serves as a key indicator of economic health, particularly for the industrial sector.

- Index
- Monthly
- Combinationof physical output data and estimates based on production related with Manufacturing, Mining and Utilities

Industrial Production Index and Stock Market Returns



SP500	-0.156
TECHNOLOGY	-0.197
HEALTHCARE	-0.136
FINANCIAL	-0.040
DISCRETIONARY	-0.192
STAPLES	-0.0377
ENERGY	-0.199
INDUSTRIAL	-0.070
MATERIALS	-0.181
UTILITIES	0.003
REAL ESTATE	-0.192

Conclusions

GDP Growth Impact on Market Returns

- Financial and consumer staples sectors show stronger correlations with GDP growth, indicating economic sensitivity.
- Sectors like technology and healthcare have weaker correlations, suggesting less reliance on economic growth.

Inflation and Market Returns

- Inflation generally has a weak negative impact across sectors, with consumer discretionary showing slight sensitivity.
- Technology and utilities appear less affected by inflation, indicating potential stability during inflationary periods.

Conclusions

Interest Rate Impact on Market Returns

- Financial, health care and real state sectors show stronger correlations with interest rates.
- Sectors like public services and consumer staples have weaker correlations.

Unemployment Rate and Market Returns

- Unemployment generally has a weak negative impact across Technology, Energy and Real State sectors.
- Consumer staples and public services appear less affected by unemployment.

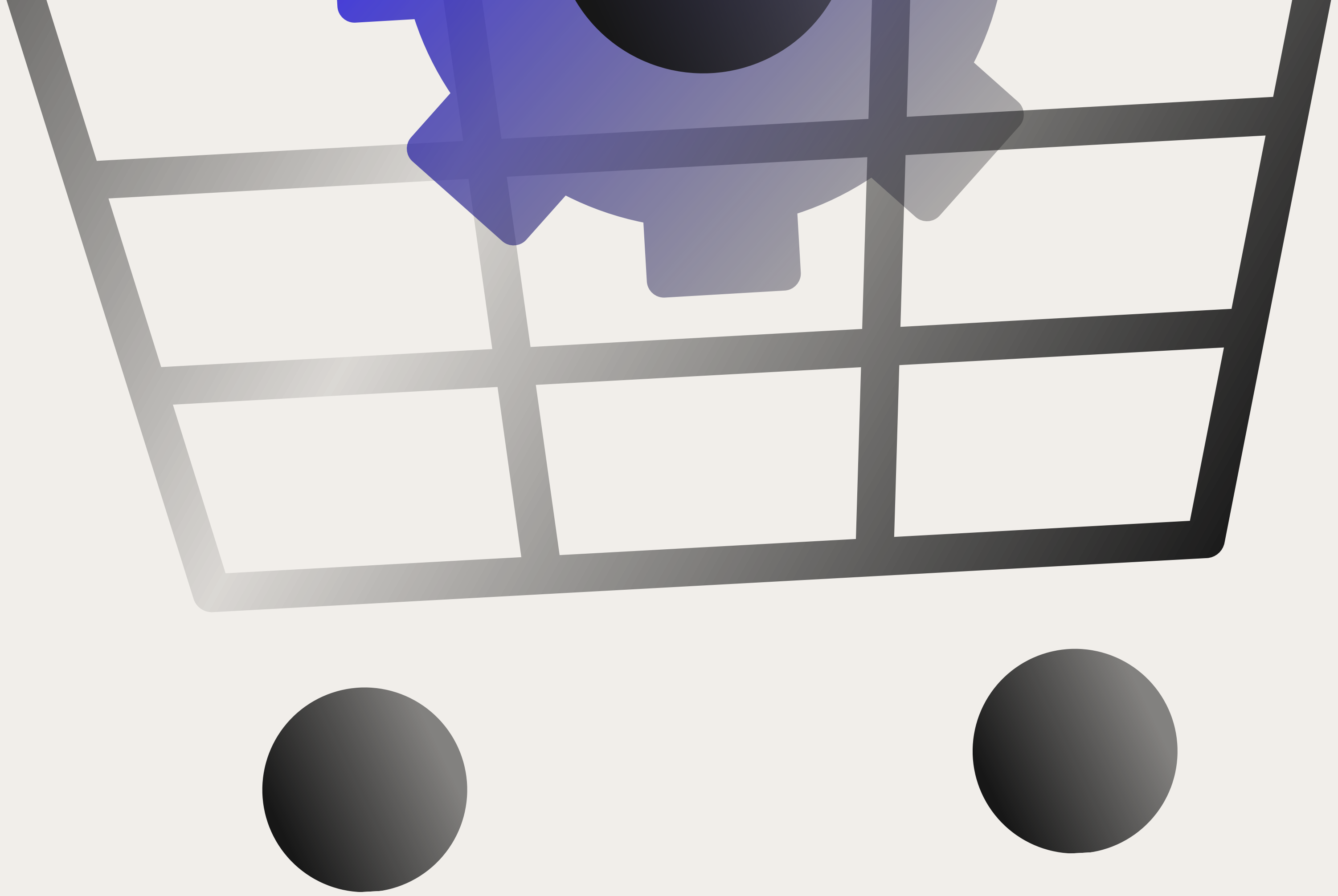
Conclusions

Customer Sentiment Index and Market Returns

- The Consumer Confidence Index growth rate does not significantly impact or explain these ETFs returns in isolation.
- In addition, the Consumer Confidence Index could be reacting with a delay to changes ocurring in the market, so also showing movements lagging behind those of the capital markets.

Industrial Production Index and Market Returns

- Not significative correlation found between IPI and ETFs returns. The IPI and stock market operate on slightly different timelines, with the stock market often acting as a leading indicator and the IPI reflecting current industrial conditions.



Thank You