Problem Set 5- Questions 3 and 4

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1 Web Scraping from Wikipedia Economics Page

1.1 Choice of Data Source and Motivation

For this assignment, I chose to scrape data from the Wikipedia page on Economics. Initially, I attempted to extract data from the Guttmacher Institute website, which focuses on reproductive health research and policy analysis. But, I encountered some problems that suggested possible server-side restrictions on web scraping activities. Then I selected a less riskier option and chose the Wikipedia Economics page for its comprehensive content and accessibility.

Though, I was familiar with heterodox economics as a field that challenges mainstream economic theories and methodologies, I was unaware of its diverse branches and theoretical frameworks. This discovery presented a good opportunity to build a web scraper that could collect and organize information about these alternative economic schools of thought. This assignment was interesting and useful activity since I became more interested in reading about these fields and it may help me through my current research especially the ecological and institutional economics.

1.2 Findings and Value

The web scraping process produced the following dataset:

```
school_name,description
Marxian economics,2 History of economic thought Toggle History of economic thought subsection 2.1 From a
Austrian School,"Austrian School, emphasizing human action, property rights and the freedom to contract
Post-Keynesian economics,Post-Keynesian economics concentrates on macroeconomic rigidities and adjustmer
Ecological economics,"Ecological economics like environmental economics studies the interactions betweer
Feminist economics,"Feminist economics emphasises the role that gender plays in economies, challenging a
Constitutional economics,A heterodox school of economic thought (description not extracted)
Institutional economics,A heterodox school of economic thought (description not extracted)
Evolutionary economics,A heterodox school of economic thought (description not extracted)
Dependency theory,A heterodox school of economic thought (description not extracted)
Structuralist economics,A heterodox school of economic thought (description not extracted)
World systems theory,A heterodox school of economic thought (description not extracted)
Econophysics,A heterodox school of economic thought (description not extracted)
Econodynamics,A heterodox school of economic thought (description not extracted)
Biophysical economics,A heterodox school of economic thought (description not extracted)
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1.3 Online Tutorial

I used Claude to help me with question three.

2 Web Scraping from Yahoo Finance

2.1 Findings

I used Yahoo Finance to compare the stock value of chain grocery stores and particularly see what has Sprouts Farmers Market did in past 12 months. I found that Sprouts comparing with larger competitors like Walmart and Costco, showed higher volatility but also periods of stronger growth. Probably how Sprouts responds to shocks is different from larger companies. The monthly analysis demonstrates interesting seasonal patterns in SFM's stock performance. It seemed it may be related to people's seasonal shopping patterns.

2.2 Packages

I used quantmod, dplyr, ggplot2 and tidyr.