

Solution Design Project 2

Do World Markets Dance in Sync?

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1. Objectives

- Check whether world economies move in the same direction

2. Project Structure

The project contains next steps:

- 1) Download historical data for 5 different world indices based on stock exchange names
- 2) Find correlation between the markets
- 3) Plot the results

3. User input and data Downloading

There is data file which contains economies, relevant exchanges and indices. User has a list of exchanges and supposed to choose 5. Then the program automatically choose relevant indices and downloads the historical data (10 years)

4. Correlation Analysis

Using historical data and correlation matrix program determine the dependence in economics movements

5. Visualization

Program shows correlation matrix (hit map) and a map that shows a trend.

6. Result

Conclusion: Economics of European countries and USA are highly correlated but not with Asian ones. So to diversify a portfolio one needs to combine Asian markets with European and American ones