

# Econometrics 3 - Problem Set 10

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## 1 Univariate analysis

### (a) Data presentation: source and plots for each time series

U.S. Infra-Annual Labor Statistics: Unemployment Rate Total: From 15 to 64 Years for United States Units: Percent, Seasonally Adjusted Frequency: Quarterly From: 1970-01-01 // 2024-01-01 Source: Organization for Economic Co-operation and Development (le lien à ajouter <https://www.oecd.org>)

U.S. Gross Domestic Product Description: Gross domestic product (GDP), the featured measure of U.S. output, is the market value of the goods and services produced by labor and property located in the United States. Units: Billions of Dollars, Seasonally Adjusted Annual Rate Frequency: Quarterly From: 1970-01-01 // 2024-01-01 Source: U.S. Bureau of Economic Analysis (le lien à ajouter <https://www.bea.gov>)

### (b) Unit root and stationarity tests for each time series

### (c) Identification of the ARMA or ARIMA process for two time series

### (d) Forecasts: in-sample and out-of-sample, for two time series