

# Data Download Metadata

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This document provides metadata for all time series data downloaded for the empirical applications in the Time Series Methods course.

## 1. US Financial and Economic Data (FRED)

### 1.1 Stock Market Data

File	Series ID	Description	Frequency	Start Date	End Date	Source
SP500.csv	SP500	S&P 500 Index	Daily	1990-01-02	2025-11-13	FRED
VIXCLS.csv	VIXCLS	CBOE Volatility Index (VIX)	Daily	1990-01-02	2025-11-13	FRED/CBOE

### 1.2 Treasury Yields

File	Series ID	Description	Frequency	Start Date	End Date	Source
GS10.csv	GS10	10-Year Treasury Constant Maturity Rate	Daily	1990-01-02	2025-11-13	FRED
DGS2.csv	DGS2	2-Year Treasury Constant Maturity Rate	Daily	1990-01-02	2025-11-13	FRED
DGS5.csv	DGS5	5-Year Treasury Constant Maturity Rate	Daily	1990-01-02	2025-11-13	FRED
DGS30.csv	DGS30	30-Year Treasury Constant Maturity Rate	Daily	1990-01-02	2025-11-13	FRED

### 1.3 Macroeconomic Data

File	Series ID	Description	Frequency	Start Date	End Date	Source
GDPC1.csv	GDPC1	Real Gross Domestic Product	Quarterly	1990-Q1	2025-Q3	FRED/BEA

File	Series ID	Description	Frequency	Start Date	End Date	Source
CPIAUCSL.csv	CPIAUCSL	Consumer Price Index for All Urban Consumers	Monthly	1990-01	2025-10	FRED/BLS
FEDFUNDS.csv	FEDFUNDS	Federal Funds Effective Rate	Monthly	1990-01	2025-10	FRED
UNRATE.csv	UNRATE	Unemployment Rate	Monthly	1990-01	2025-10	FRED/BLS

#### 1.4 State Unemployment Rates

File	Series ID	Description	Frequency	Start Date	End Date	Source
CAUR.csv	CAUR	California Unemployment Rate	Monthly	1976-01	2025-10	FRED/BLS
TXUR.csv	TXUR	Texas Unemployment Rate	Monthly	1976-01	2025-10	FRED/BLS

#### 1.5 Exchange Rates

File	Series ID	Description	Frequency	Start Date	End Date	Source
DEXUSEU.csv	DEXUSEU	US Dollar to Euro Exchange Rate	Daily	1999-01-04	2025-11-13	FRED

## 2. European Financial Data

### 2.1 Stock Market Indices (Yahoo Finance)

File	Ticker	Description	Frequency	Start Date	End Date	Observations	Source
IBEX35.csv	^IBEX	IBEX 35 (Spain)	Daily	1993-07-12	2025-11-14	8,197	Yahoo Finance
CAC40.csv	^FCHI	CAC 40 (France)	Daily	1990-03-01	2025-11-14	9,070	Yahoo Finance

File	Ticker	Description	Frequency	Start Date	End Date	Observations	Source
DAX.csv	^GDAXI	DAX (Germany)	Daily	1990-01-02	2025-11-14	9,078	Yahoo Finance
FTSEMIB.csv	FTSEMIB.MI	FTSE MIB (Italy)	Daily	1997-12-31	2025-11-14	7,123	Yahoo Finance

**Note:** Yahoo Finance data includes columns: Date, Open, High, Low, Close, Adj Close, Volume

## 2.2 Government Bond Yields (10-Year)

File	Series ID	Country	Frequency	Start Date	End Date	Source
BOND_10Y_DE.csv	FR1TLT01DEM156N	Germany	Monthly	1990-01	2025-10	FRED/OECD
BOND_10Y_FR.csv	FR1TLT01FRM156N	France	Monthly	1999-01	2025-10	FRED/OECD
BOND_10Y_IT.csv	FR1TLT01ITM156N	Italy	Monthly	1990-01	2025-10	FRED/OECD
BOND_10Y_ES.csv	FR1TLT01ESM156N	Spain	Monthly	1990-01	2025-10	FRED/OECD
BOND_10Y_PT.csv	FR1TLT01PTM156N	Portugal	Monthly	1999-01	2025-10	FRED/OECD
BOND_10Y_GR.csv	FR1TLT01GRM156N	Greece	Monthly	2001-01	2025-10	FRED/OECD
BOND_10Y_IE.csv	FR1TLT01IEM156N	Ireland	Monthly	1990-01	2025-10	FRED/OECD

## 3. Spanish Macroeconomic Data

### 3.1 National Indicators

File	Series ID	Description	Frequency	Start Date	End Date	Source
ESP_GDP.csv	NAEXKP01ESQ189S	Spain Real GDP Growth Rate (YoY)	Quarterly	1996-Q1	2025-Q2	FRED/OECD
ESP_CPI.csv	ESPCPIALLMINMEI	Spain Consumer Price Index	Monthly	2003-01	2025-10	FRED/OECD
ESP_CREDIT.csv	QESN628BIS	Spain Credit to Non-Financial Sector	Quarterly	1996-Q1	2025-Q2	FRED/BIS
ESP_UNEMP.csv	LRUNTTTTTESM156S	Spain Unemployment Rate	Monthly	1990-01	2025-10	FRED/OECD

### 3.2 Regional Data

**Note:** Regional unemployment data for Madrid and Catalonia should be downloaded manually from: - **INE (Instituto Nacional de Estadística):** <https://www.ine.es/> - Navigate to: Labor Market Statistics > EPA (Labor Force Survey) > Regional Data - Required series: Quarterly unemployment rates (1976-2025) for: - Comunidad de Madrid - Cataluña

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## 4. Data Processing Notes

### 4.1 File Format

All CSV files follow FRED/Yahoo Finance standard format: - **FRED files:** Two columns (DATE, VALUE) - **Yahoo Finance files:** Seven columns (Date, Open, High, Low, Close, Adj Close, Volume)

### 4.2 Date Formats

- **FRED daily:** YYYY-MM-DD
- **FRED monthly:** YYYY-MM-DD (first day of month)
- **FRED quarterly:** YYYY-MM-DD (first day of quarter)
- **Yahoo Finance:** YYYY-MM-DD

### 4.3 Missing Values

- FRED uses “.” for missing values
- Yahoo Finance uses “null” or omits rows

### 4.4 Frequencies

- **Daily:** Stock indices, VIX, Treasury yields, EUR/USD
  - **Monthly:** CPI, unemployment rates, Fed Funds rate, bond yields
  - **Quarterly:** GDP, credit data
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