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| USMacroSW | R Documentation |

**US Macroeconomic Data (1957–2005, Stock \& Watson)**

**Description**

Time series data on 7 (mostly) US macroeconomic variables for 1957–2005.

**Usage**

data("USMacroSW")

**Format**

A quarterly multiple time series from 1957(1) to 2005(1) with 7 variables.

unemp

Unemployment rate.

cpi

Consumer price index.

ffrate

Federal funds interest rate.

tbill

3-month treasury bill interest rate.

tbond

1-year treasury bond interest rate.

gbpusd

GBP/USD exchange rate (US dollar in cents per British pound).

gdpjp

GDP for Japan.

**Details**

The US Consumer Price Index is measured using monthly surveys and is compiled by the Bureau of Labor Statistics (BLS). The unemployment rate is computed from the BLS's Current Population. The quarterly data used here were computed by averaging the monthly values. The interest data are the monthly average of daily rates as reported by the Federal Reserve and the dollar-pound exchange rate data are the monthly average of daily rates; both are for the final month in the quarter. Japanese real GDP data were obtained from the OECD.

**Source**

Online complements to Stock and Watson (2007).

**References**

Stock, J.H. and Watson, M.W. (2007). *Introduction to Econometrics*, 2nd ed. Boston: Addison Wesley.

**See Also**

StockWatson2007, USMacroSWM, USMacroSWQ, USMacroB, USMacroG

**Examples**

## Stock and Watson (2007)

data("USMacroSW", package = "AER")

library("dynlm")

library("strucchange")

usm <- ts.intersect(USMacroSW, 4 \* 100 \* diff(log(USMacroSW[, "cpi"])))

colnames(usm) <- c(colnames(USMacroSW), "infl")

## Equations 14.7, 14.13, 14.16, 14.17, pp. 536

fm\_ar1 <- dynlm(d(infl) ~ L(d(infl)),

data = usm, start = c(1962,1), end = c(2004,4))

fm\_ar4 <- dynlm(d(infl) ~ L(d(infl), 1:4),

data = usm, start = c(1962,1), end = c(2004,4))

fm\_adl41 <- dynlm(d(infl) ~ L(d(infl), 1:4) + L(unemp),

data = usm, start = c(1962,1), end = c(2004,4))

fm\_adl44 <- dynlm(d(infl) ~ L(d(infl), 1:4) + L(unemp, 1:4),

data = usm, start = c(1962,1), end = c(2004,4))

coeftest(fm\_ar1, vcov = sandwich)

coeftest(fm\_ar4, vcov = sandwich)

coeftest(fm\_adl41, vcov = sandwich)

coeftest(fm\_adl44, vcov = sandwich)

## Granger causality test mentioned on p. 547

waldtest(fm\_ar4, fm\_adl44, vcov = sandwich)

## Figure 14.5, p. 570

## SW perform partial break test of unemp coefs

## here full model is used

mf <- model.frame(fm\_adl44) ## re-use fm\_adl44

mf <- ts(as.matrix(mf), start = c(1962, 1), freq = 4)

colnames(mf) <- c("y", paste("x", 1:8, sep = ""))

ff <- as.formula(paste("y", "~", paste("x", 1:8, sep = "", collapse = " + ")))

fs <- Fstats(ff, data = mf, from = 0.1)

plot(fs)

lines(boundary(fs, alpha = 0.01), lty = 2, col = 2)

lines(boundary(fs, alpha = 0.1), lty = 3, col = 2)

## More examples can be found in:

## help("StockWatson2007")