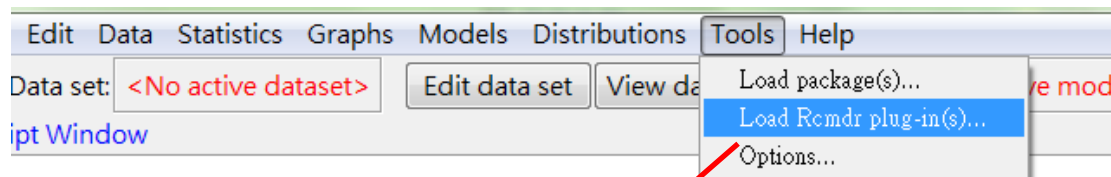


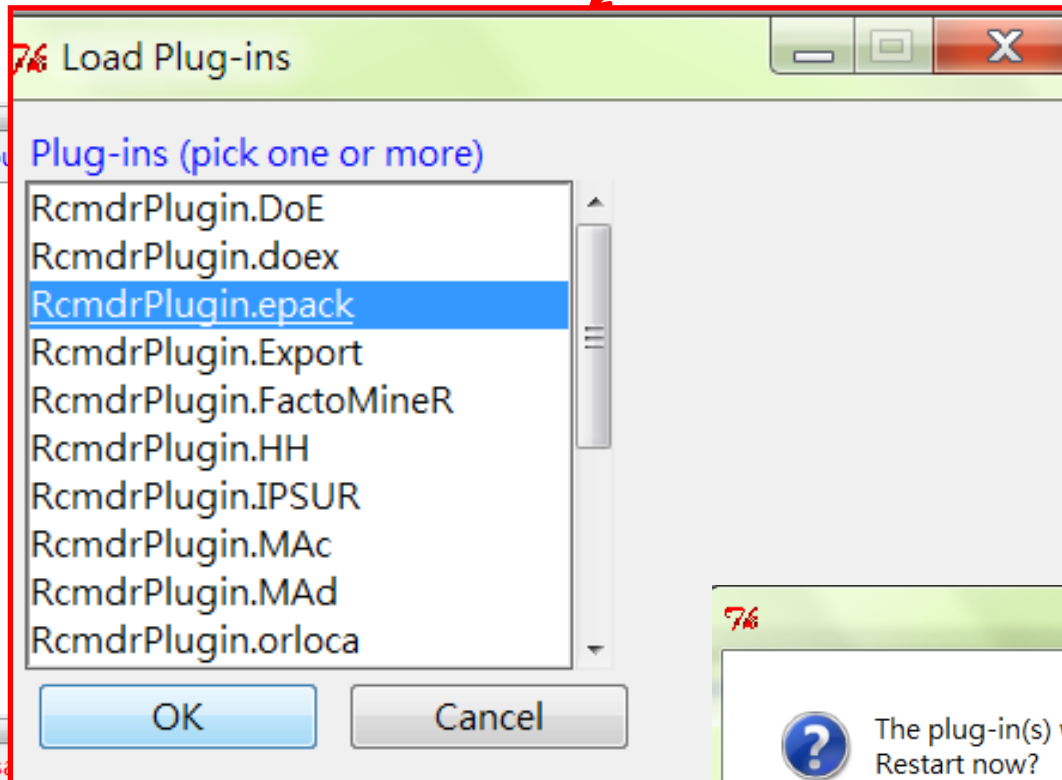
# R Commander Plug-in

簡單時間序列

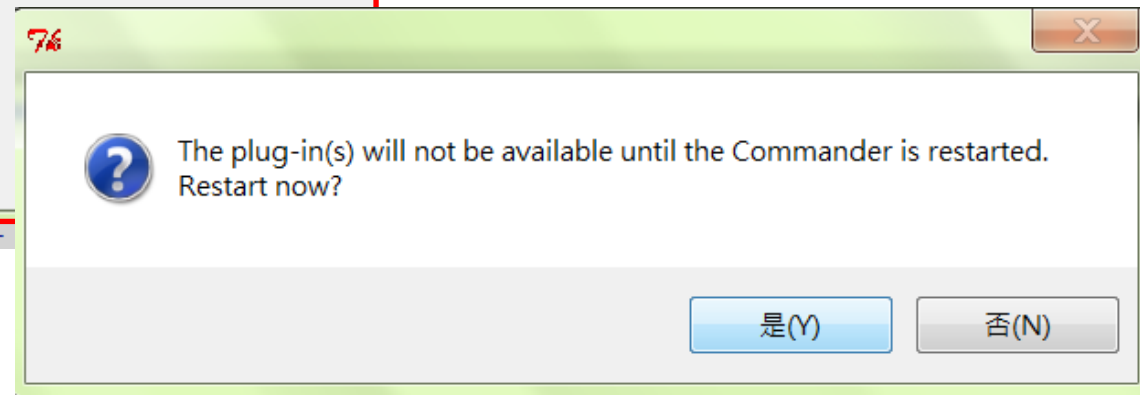
epack



至Tools → Load Rcmdr  
plug-in(s)下載epack

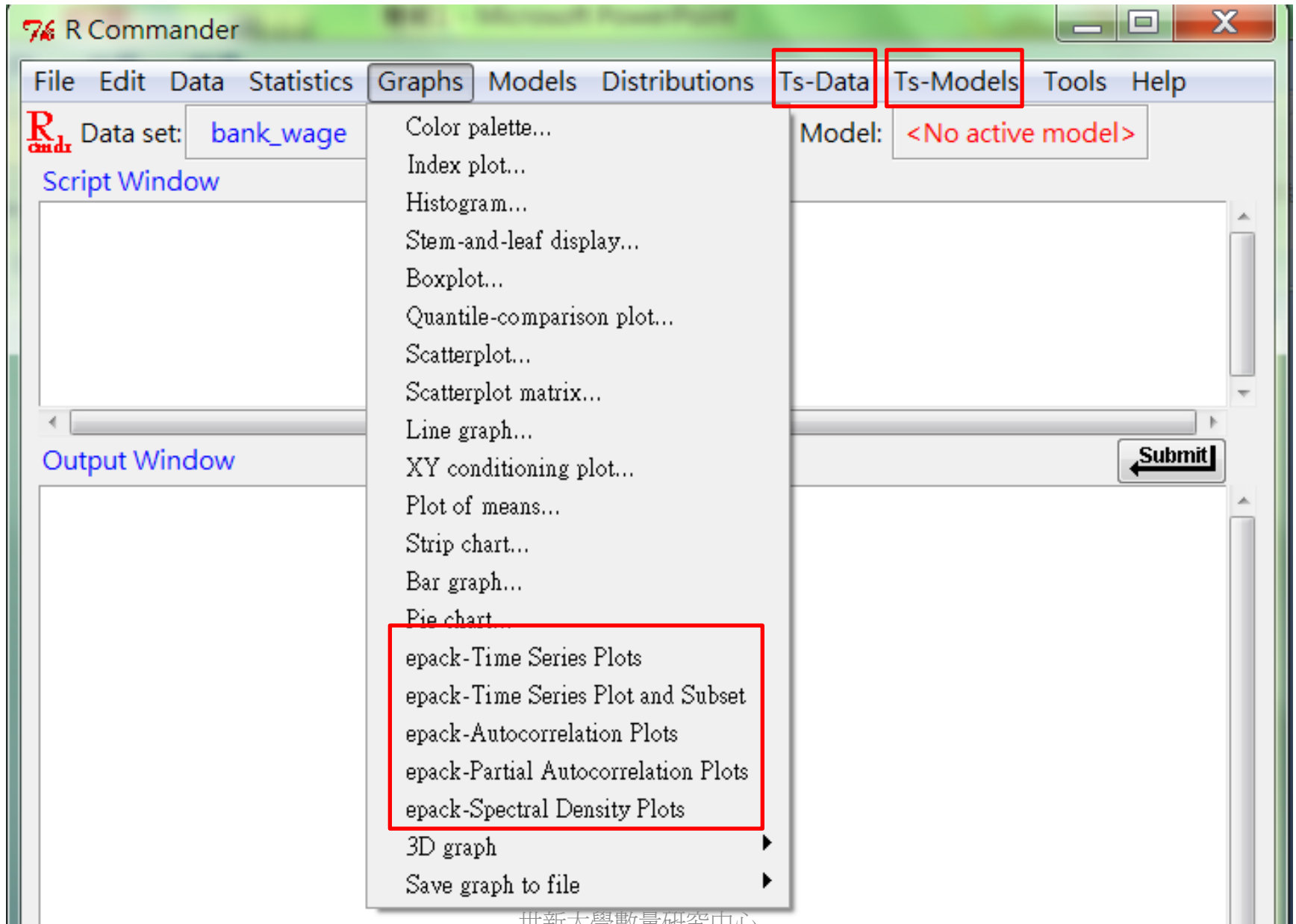


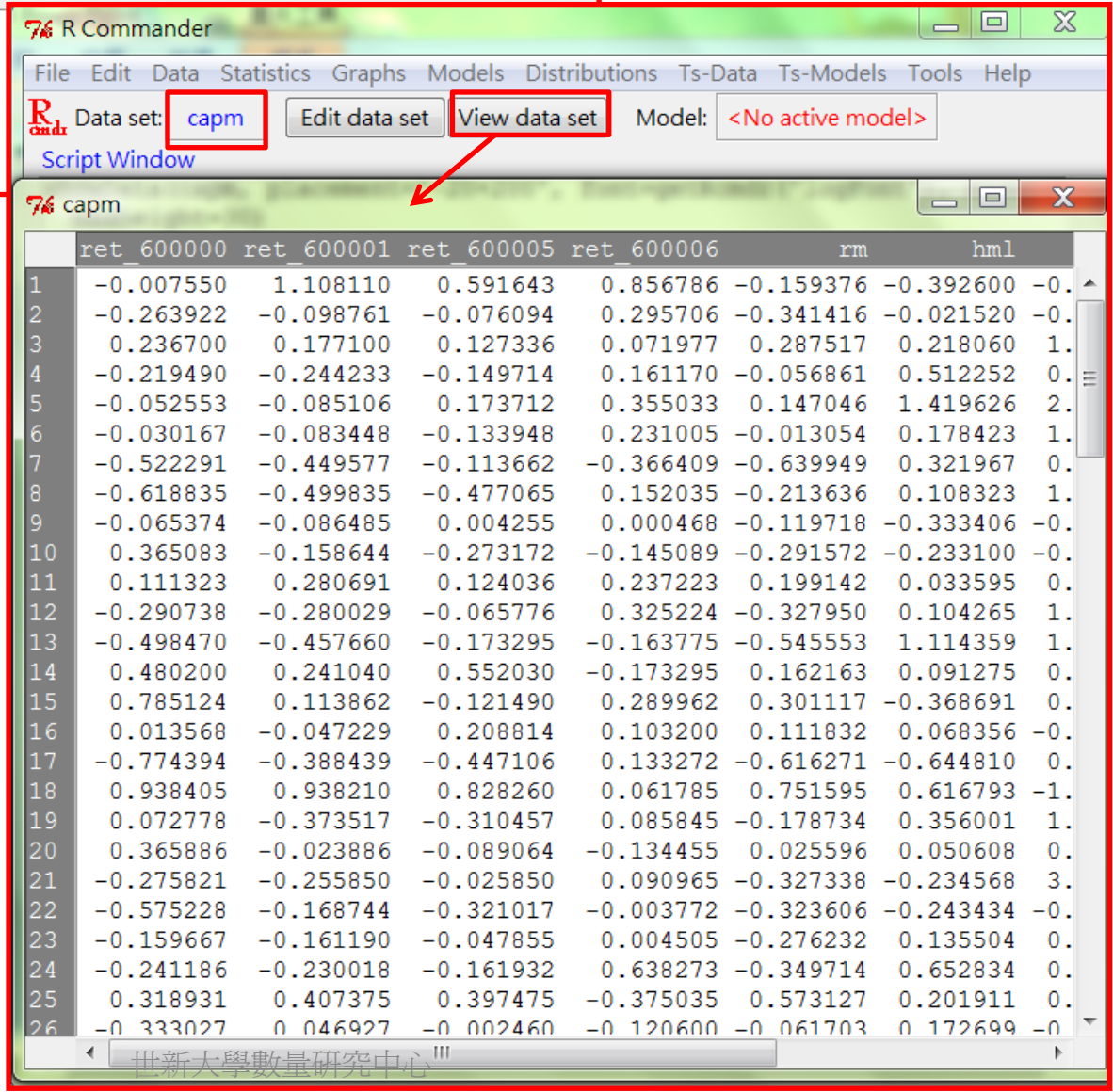
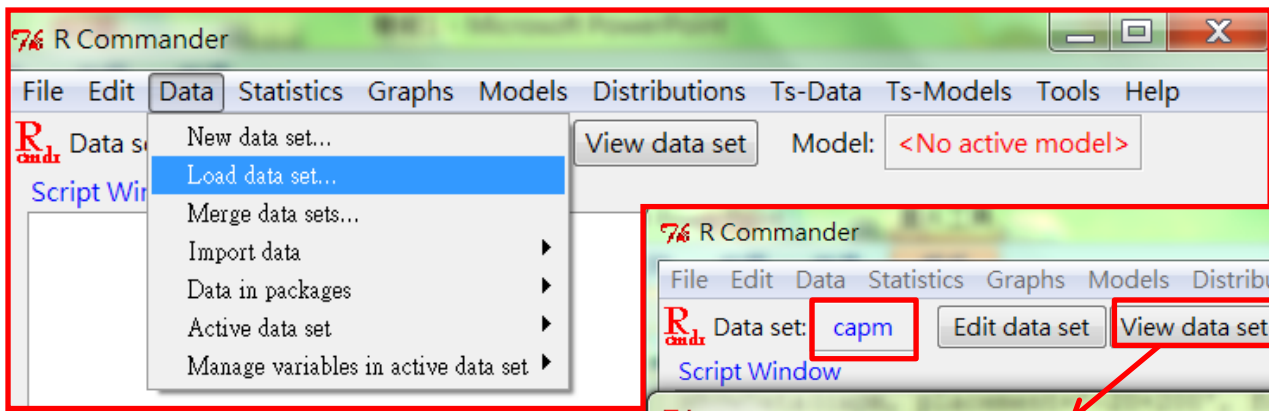
點選完成，按OK後即出現此視窗



按「是」：因為下載epack須關閉目前的R-Commander視窗，以重新啓動

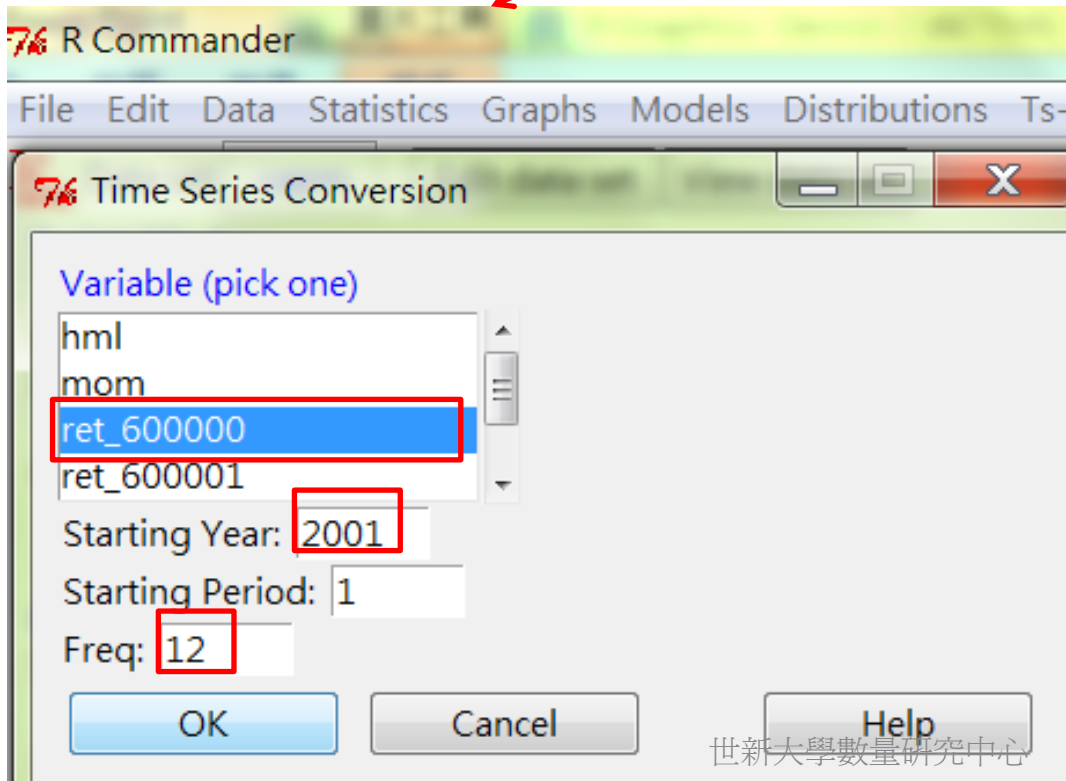
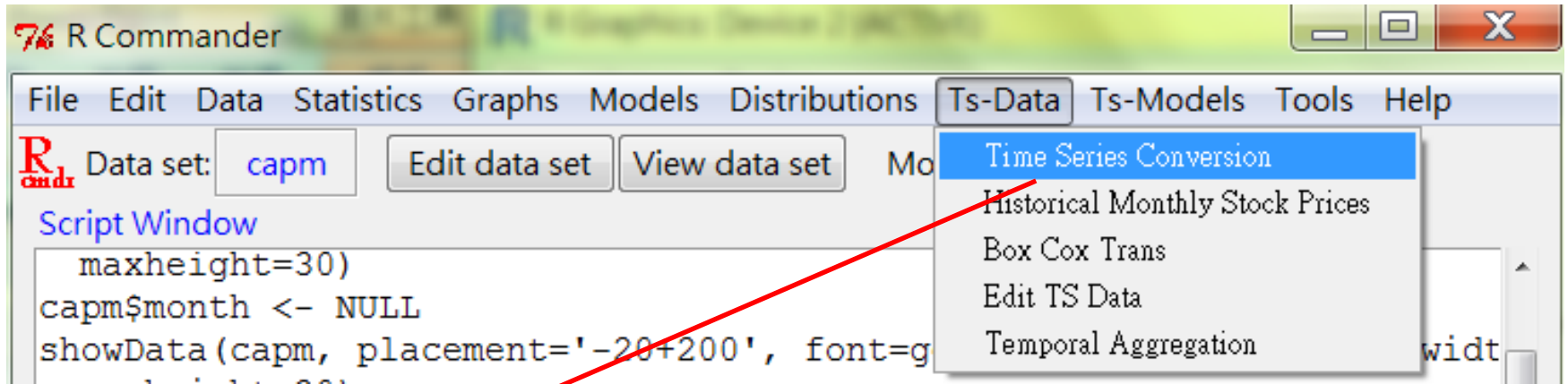
# 下載epack後多出的功能列，與Graphs選單中多出繪圖項目





載入一筆時間序列  
資料：capm.rda

# Ts-Data → Time Series Conversion → 設定時間序列結構

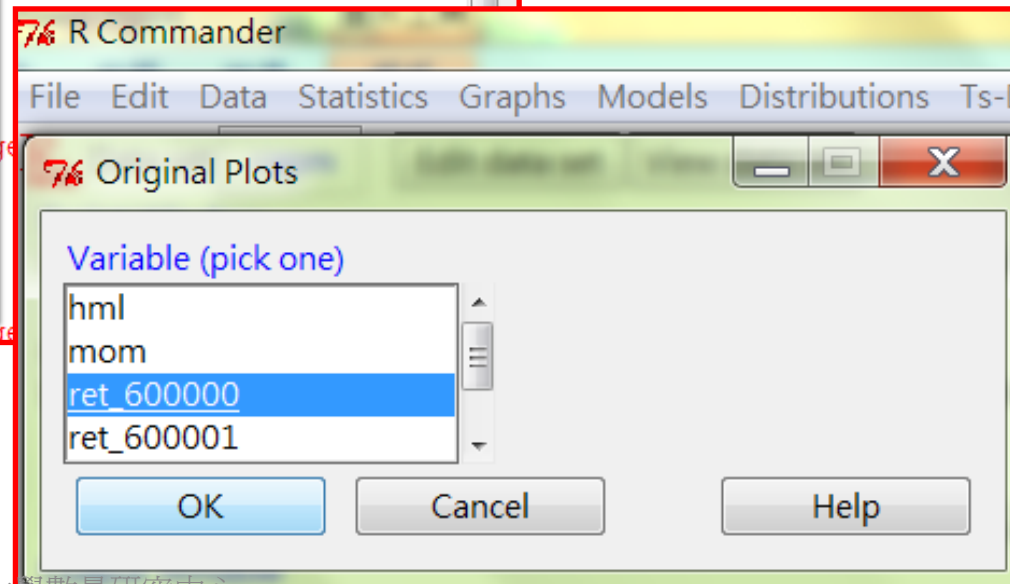
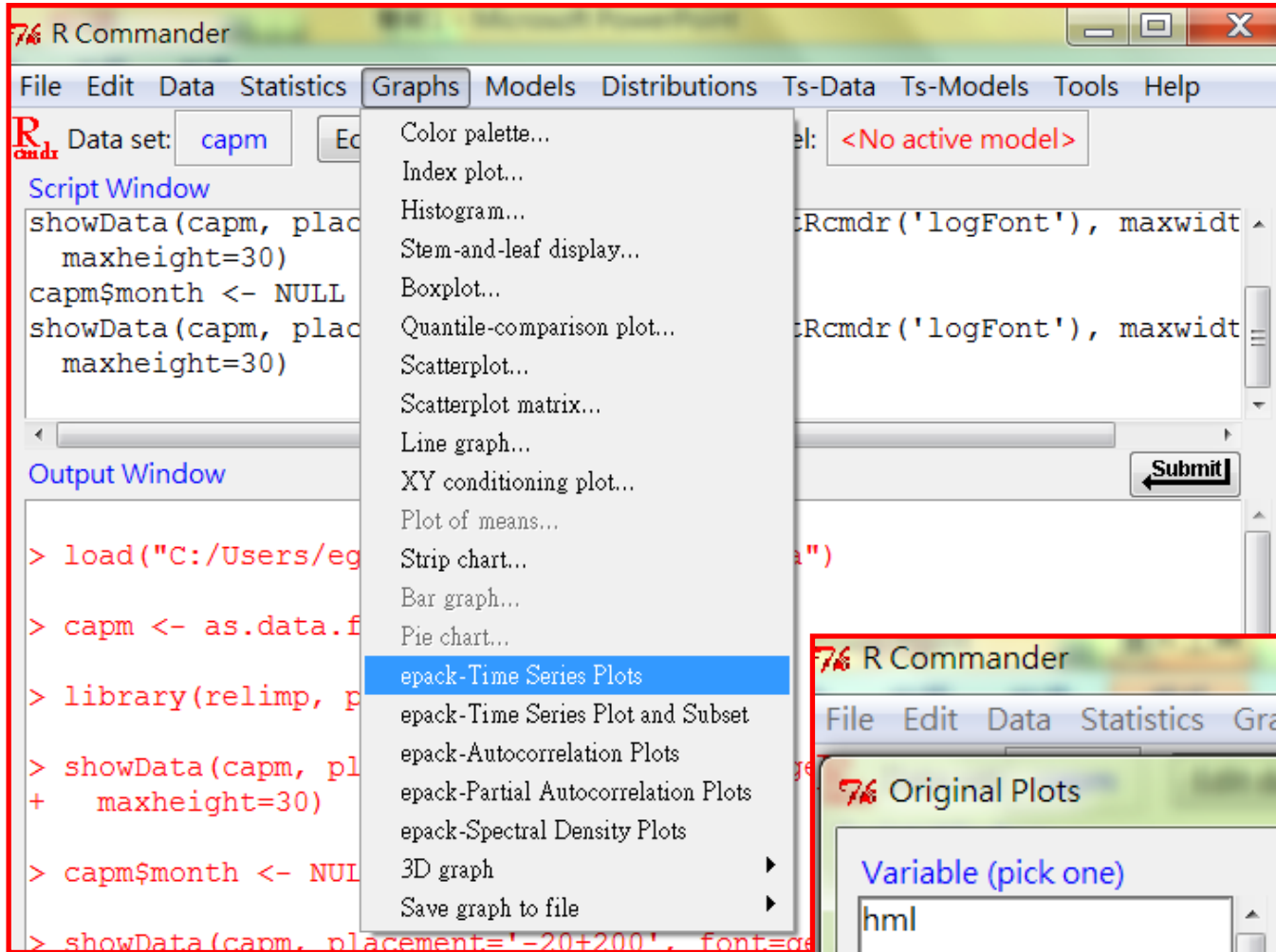


選擇資料變數：  
ret\_600000

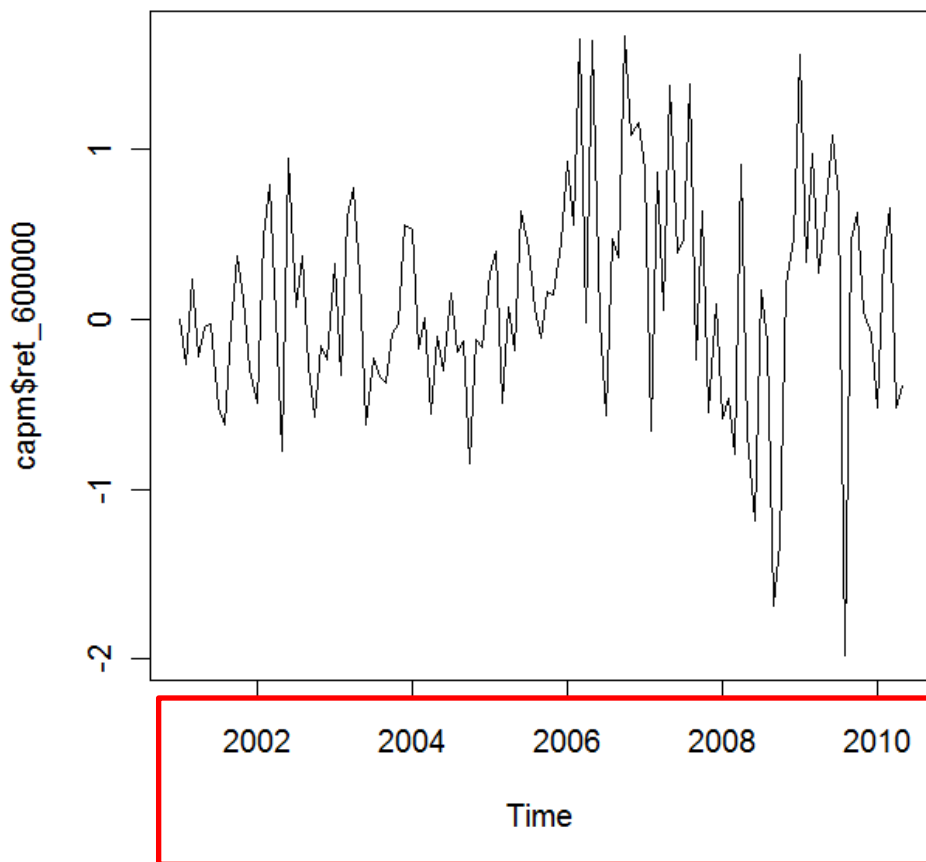
給定起始年：2001

資料頻率：12(月頻)

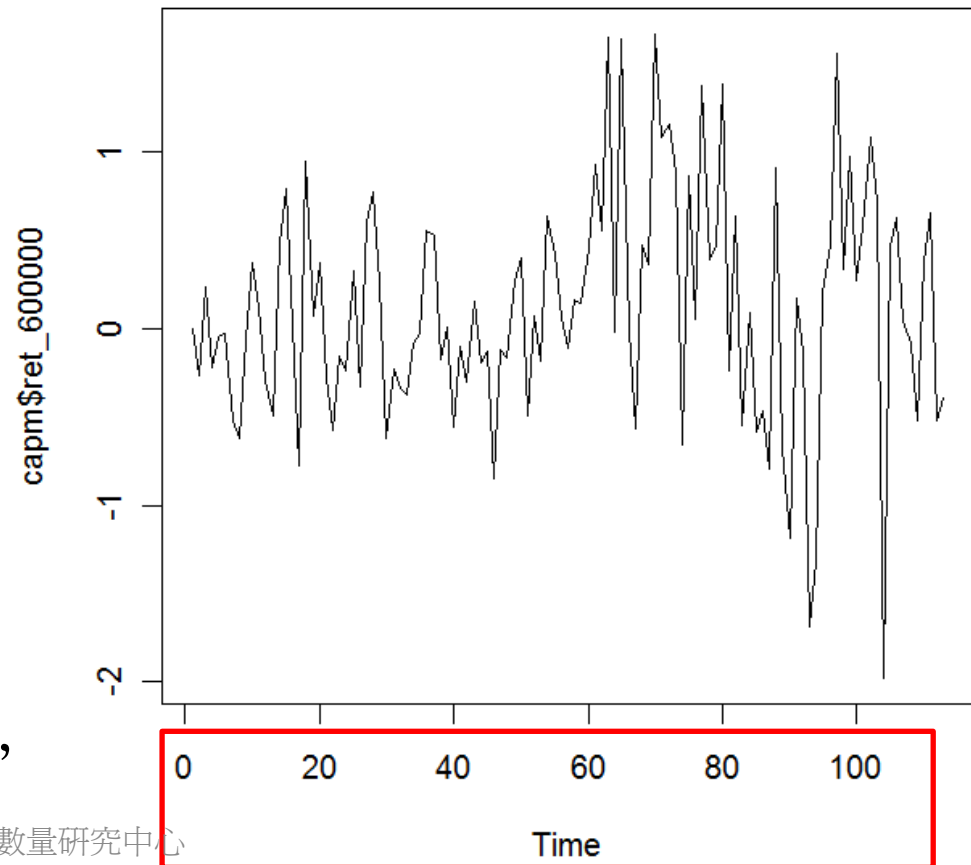
# Ts-Data 繪圖：Graphs→epack-Time Series Plots



選擇變數ret\_600000

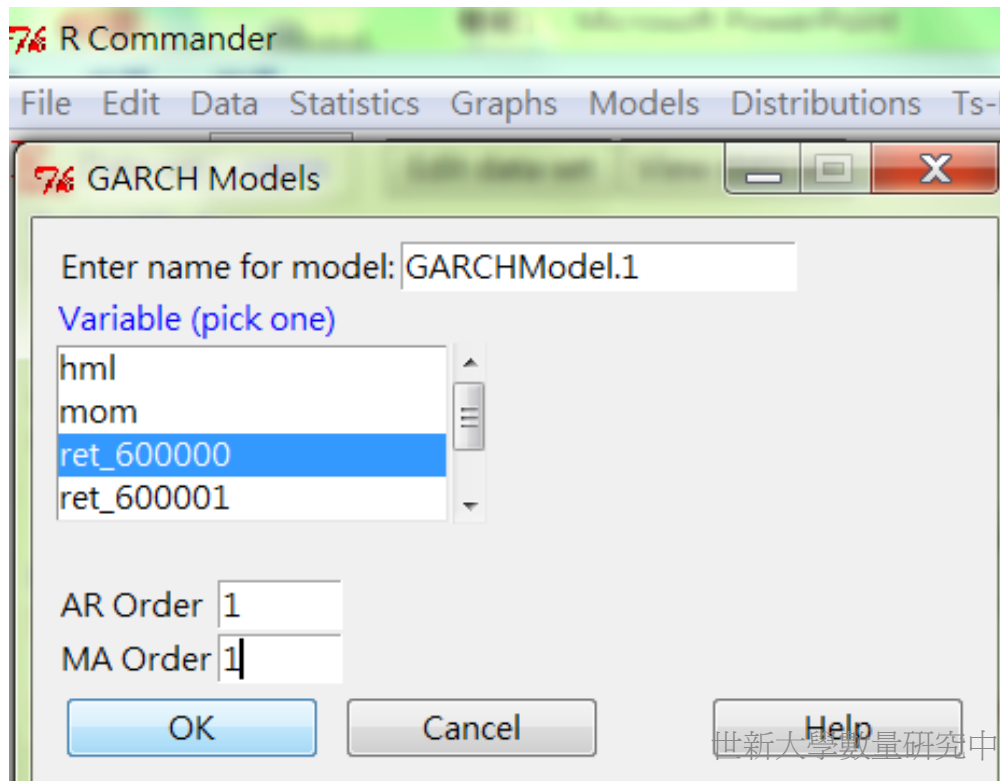
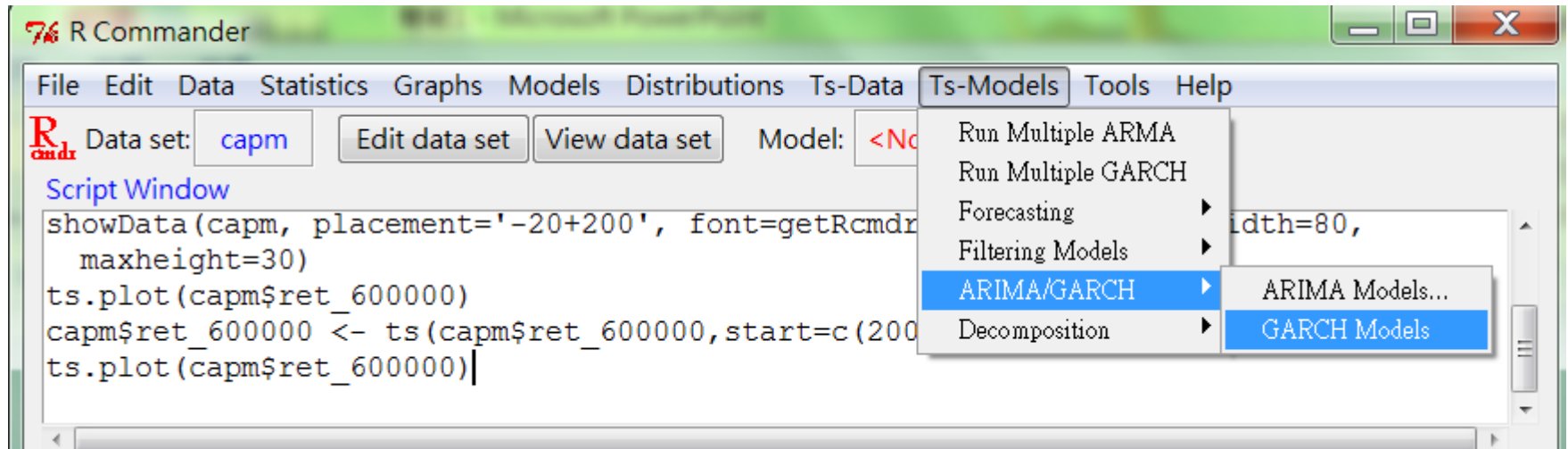


設定時間結構之繪圖結果：  
時間欄位名稱具時間意義



無時間結構設定之繪圖結果：  
時間欄位名稱僅以數值表示，  
無時間意義

# Ts-Models → ARIMA/GARCH → GARCH Models

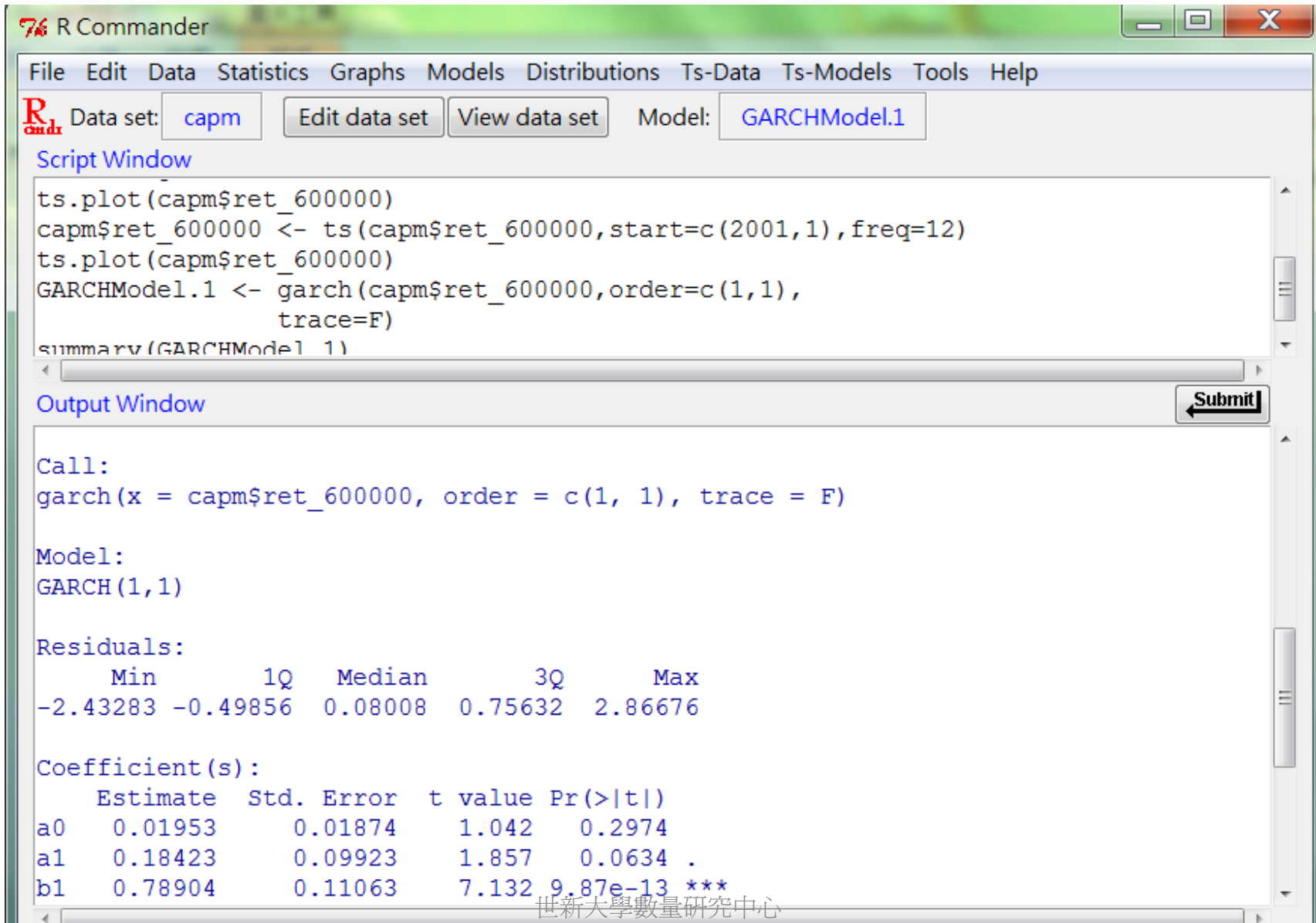


選擇資料變數：  
ret\_600000

宣告AR與MA結構



# GARCH Models Output Window



The screenshot shows the R Commander interface. The 'Data set' is 'capm' and the 'Model' is 'GARCHModel.1'. The 'Script Window' contains the following R code:

```
ts.plot(capm$ret_600000)
capm$ret_600000 <- ts(capm$ret_600000, start=c(2001,1), freq=12)
ts.plot(capm$ret_600000)
GARCHModel.1 <- garch(capm$ret_600000, order=c(1,1),
                      trace=F)
summary(GARCHModel.1)
```

The 'Output Window' displays the following results:

Call:  
garch(x = capm\$ret\_600000, order = c(1, 1), trace = F)

Model:  
GARCH(1,1)

Residuals:

	Min	1Q	Median	3Q	Max
	-2.43283	-0.49856	0.08008	0.75632	2.86676

Coefficient(s):

	Estimate	Std. Error	t value	Pr(> t )
a0	0.01953	0.01874	1.042	0.2974
a1	0.18423	0.09923	1.857	0.0634 .
b1	0.78904	0.11063	7.132	9.87e-13 ***

世新大學數量研究中心