Restricted Test

29 สิงหาคม 2560 7:59

CAPM $(r_j - r_f)_t = \alpha_j + \beta_{mj}(r_m - r_f)_t + \varepsilon_{jt}$

FF $(r_j - r_f)_t = \alpha_j + \beta_{mj}(r_m - r_f)_t + \beta_{sj}^{=0} SMB_t + \beta_{hj}^{=0} HML_t + \varepsilon_{jt}$

Restricted Model $Y_t = \alpha + \beta_1 X_{1t} + \varepsilon_t \longrightarrow RSS_R \quad n-2$

Unrestricted $Y_t = \alpha + \beta_1 X_{1t} + \beta_2^{=0} X_{2t} + \beta_3^{=0} X_{3t} + \varepsilon_t \rightarrow RSS_{UR} \quad n-4$

Whether CAPM or FF is more appropriated.?

H_0: $\boxed{\beta_2 = 0}$ & $\boxed{\beta_3 = 0}$ or $\boxed{\beta_2 = \beta_3 = 0}$

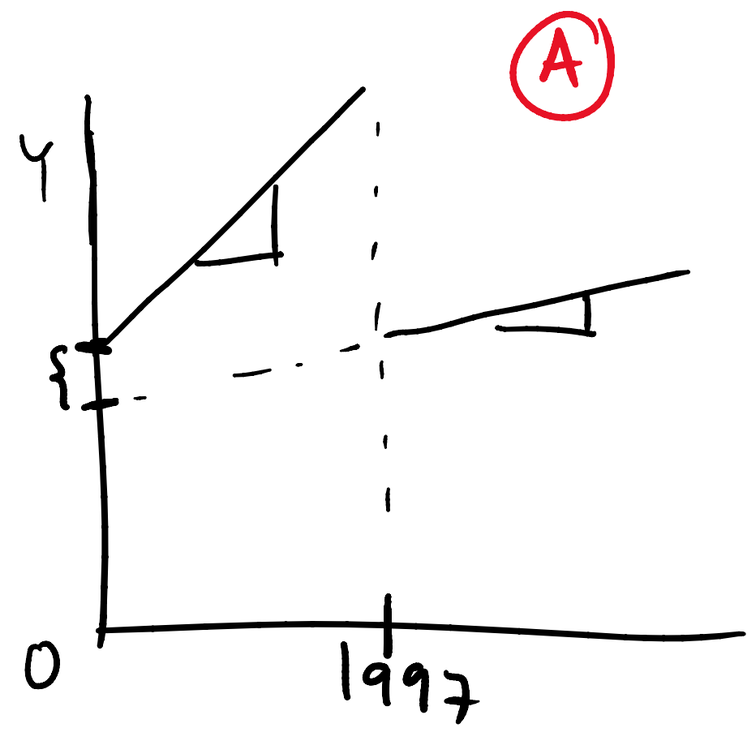
↑ Null Hypothesis

Nested Models - Same dependent variable
- All independent variables in one model are sub-set of another model.

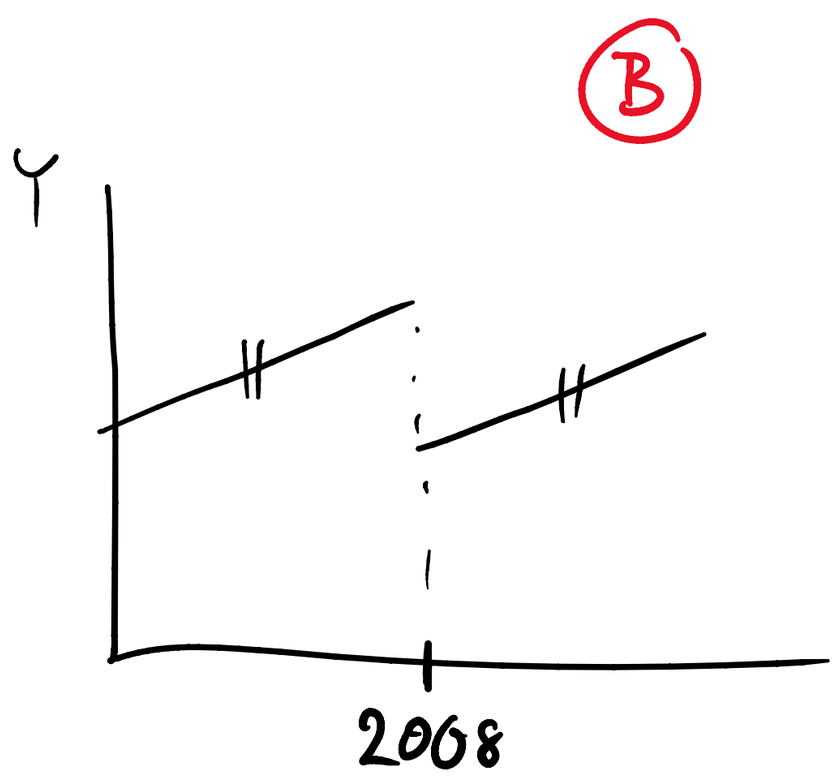
Chi-square

$$F_{(m, n-k)} = \frac{(RSS_R - RSS_{UR}) / m}{RSS_{UR} / (n-k)} \qquad (4-2) \quad \frac{n-4}{}$$

m = # of restrictions



Intercept & Slope Dummy



Intercept Dummy