

$$1) \{x_t, y_t : t = 1, 2, \dots, T\}$$

↳ covariance stationary

↳ weakly dependent

$$2) E(y_t | x_t) = \beta x_t \quad \forall t$$

↳ no spec error

$$E(e_t | x_t) = 0$$

- Prediction

- Causation

$$E(e_t | x_t) = 0$$

↳ by def of PRF

$$x' \tilde{e} = 0$$

- For causation, need omitted causes uncorrelated with x

↳ Huge Assumption

$$3) \text{No Perfect Collinearity}$$

$$4) \text{Homoskedasticity OR Heteroskedasticity robust}$$

$$5) \text{one of these is true}$$

$$1) \text{No serial corr in original model}$$

$$2) \text{formulated a dynamically complete transformation}$$

$$3) \text{Using serial corr robust std-err (Newey-West)}$$

$$4) \text{explicitly modelled form of serial corr and corrected results}$$