11.7 Autoregressive Processes 2

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AR(p) process
↳ rho

$$y_t = \alpha + \rho_1 y_{t+1} + \rho_2 y_{t-2} + \dots \rho_p y_{t-p} + \varepsilon_t$$

$$= \alpha + \sum_{h=0}^{p} \rho_h y_{t-h} + \varepsilon_t$$

↳ weakly dependent

} stationary + weakly dependent

→ Estimate via OLS

(p|d|1)

daily data

$$\tilde{y} = (y_{t-1} + y_{t-2} + \dots + y_{t-7}) / 7 \quad \rightarrow AR(7)$$

Moving Average → not this!