

SAS Syntax for Specifying ARMA Models

$$P=3 \Rightarrow z_t = C + \phi_1 z_{t-1} + \phi_2 z_{t-2} + \phi_3 z_{t-3} + a_t$$

$$Q=2 \Rightarrow z_t = C + a_t - \theta_1 a_{t-1} - \theta_2 a_{t-2}$$

$$P=2 \quad Q=1 \Rightarrow z_t = C + \phi_1 z_{t-1} + \phi_2 z_{t-2} + a_t - \theta_1 a_{t-1}$$

$$P=(1,3,5,7) \Rightarrow z_t = C + \phi_1 z_{t-1} + \phi_3 z_{t-3} \\ + \phi_5 z_{t-5} + \phi_7 z_{t-7} + a_t$$

$$Q=(2,4) \Rightarrow z_t = C + a_t - \theta_2 a_{t-2} - \theta_4 a_{t-4}$$

$$P=(1,3) \quad Q=(2,4) \Rightarrow z_t = C + \phi_1 z_{t-1} + \phi_3 z_{t-3} \\ + a_t - \theta_2 a_{t-2} - \theta_4 a_{t-4}$$