

$$Y_t = \phi_0 + \underbrace{\phi_1 Y_{t-1} + \phi_2 Y_{t-2} + \dots + \phi_p Y_{t-p}}_{\sum_{i=1}^p \phi_i Y_{t-i}}$$

$$\sum_{i=1}^p \phi_i Y_{t-i} = \sum \phi_i B^i Y_t$$

$$= Y_t \cdot \underbrace{\left[\sum \phi_i B^i \right]}_{\phi_p(B)}$$

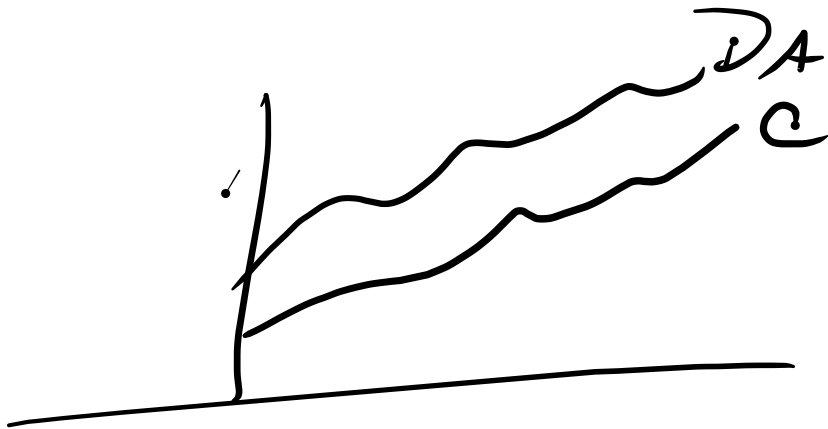
$$+ c_0 + c_1 Z_{t-1} + c_2 Z_{t-2}$$

$$+ \varepsilon_t$$

$$x_t = A_t$$



$$\begin{pmatrix} y_t \\ z_t \end{pmatrix} = \begin{pmatrix} b_{10} \\ b_{20} \end{pmatrix} +$$



$$\alpha_1 \cdot \underbrace{I(1)}_{X_t} + \alpha_2 \underbrace{I(2)}_{X_t}$$

$$\alpha_1 \cdot X_t + \alpha_2 \cdot \underbrace{\nabla X_t}_{I(1)}$$

$$\begin{array}{c}
 \tau \\
 -1,02 \\
 \hline
 1 \quad \quad \quad 0 \\
 \hline
 \underbrace{\hspace{10em}}_{\text{No}} \quad \underbrace{\hspace{10em}}_{\text{No}} \rightarrow \underline{\underline{J(1)}}
 \end{array}$$