

$$\bar{x}_1 = \begin{pmatrix} \alpha \\ \beta \end{pmatrix}$$

**Model 1**

$$\bar{y}_1 = \begin{pmatrix} \Theta \\ \Sigma \end{pmatrix}$$

$$\bar{x}_{N-1} = \begin{pmatrix} \Theta \\ \delta \end{pmatrix}$$

**Model  
N-1**

$$\bar{y}_{N-1} = \begin{pmatrix} \Phi \\ \Pi \end{pmatrix}$$

$$\bar{x}_N = \begin{pmatrix} \Pi \\ \mu \end{pmatrix}$$

**Model N**

$$\bar{y}_N = \begin{pmatrix} \Psi \\ \Gamma \end{pmatrix}$$