

$$\begin{array}{c}
\mathbf{Y} = \left[\begin{array}{c} \mathbf{Y}_V \\ \mathbf{y}_{V+1} \end{array} \right] \begin{array}{c} \\ R \text{ regions} \end{array} \\
V + 1 \text{ votes}
\end{array}
\qquad
\mathbf{y}_{V+1} = \left[\begin{array}{c} \mathbf{y}_{V+1}^{(\mathcal{U})} \\ \mathbf{y}_{V+1}^{(\mathcal{O})} \end{array} \right]$$