

$$\begin{pmatrix} \sum z_{ji} z_{ki} \\ \vdots \\ \sum z_{ji} z_{ki} \end{pmatrix} = \begin{pmatrix} \sum z_{ji} z_{ki} \\ \vdots \\ \sum z_{ji} z_{ki} \end{pmatrix} \Bigg\}^k$$

$k \times k$



$$\begin{pmatrix} \sum x_{n-1}^2 & \sum x_{n-1} x_{n-2} \\ \vdots & \vdots \\ \sum x_{n-k} x_{n-1} & \sum x_{n-k} x_{n-2} \end{pmatrix}^{-1} \begin{pmatrix} \sum x_n x_{n-1} \\ \vdots \\ \sum x_n x_{n-k} \end{pmatrix} \begin{pmatrix} 0 & 0 & \dots & 1 \\ 1 & 0 & \dots & 0 \\ \vdots & \vdots & \ddots & \vdots \\ 0 & 0 & \dots & 0 \end{pmatrix} \begin{pmatrix} k \\ \vdots \\ k \end{pmatrix}$$

$\sum x_{n-k} x_{n-1}$
 $(= \sum x_{n-k}^2)$