$$
\begin{bmatrix}
a_{00} & a_{01} & a_{02} & a_{03} & a_{04} \\
a_{10} & a_{11} & a_{12} & a_{13} & a_{14} \\
a_{20} & a_{21} & a_{22} & a_{23} & a_{24} \\
a_{30} & a_{31} & a_{32} & a_{33} & a_{34} \\
a_{40} & a_{41} & a_{42} & a_{43} & a_{44}
\end{bmatrix}
$$

b-grid (with flipped kernel w):

$$
\begin{bmatrix}
b_{00} & b_{01} & b_{02} & \\
b_{10} & b_{11} & b_{12} & \\
b_{20} & b_{21}\,{}_{w_{22}} & b_{22}\,{}_{w_{21}} & {}_{w_{20}} \\
 & {}_{w_{12}} & {}_{w_{11}} & {}_{w_{10}} \\
 & {}_{w_{02}} & {}_{w_{01}} & {}_{w_{00}}
\end{bmatrix}
$$

$$
\begin{bmatrix}
w_{00} & w_{01} & w_{02} & & & w_{10} & w_{11} & w_{12} & & & w_{20} & w_{21} & w_{22} & & & & & & & & & & \\
 & w_{00} & w_{01} & w_{02} & & & w_{10} & w_{11} & w_{12} & & & w_{20} & w_{21} & w_{22} & & & & & & & & & \\
 & & w_{00} & w_{01} & w_{02} & & & w_{10} & w_{11} & w_{12} & & & w_{20} & w_{21} & w_{22} & & & & & & & & \\
 & & & w_{00} & w_{01} & w_{02} & & & w_{10} & w_{11} & w_{12} & & & w_{20} & w_{21} & w_{22} & & & & & & & \\
 & & & & w_{00} & w_{01} & w_{02} & & & w_{10} & w_{11} & w_{12} & & & w_{20} & w_{21} & w_{22} & & & & & & \\
 & & & & & w_{00} & w_{01} & w_{02} & & & w_{10} & w_{11} & w_{12} & & & w_{20} & w_{21} & w_{22} & & & & & \\
 & & & & & & & w_{00} & w_{01} & w_{02} & & & w_{10} & w_{11} & w_{12} & & & w_{20} & w_{21} & w_{22} & & & \\
 & & & & & & & & w_{00} & w_{01} & w_{02} & & & w_{10} & w_{11} & w_{12} & & & w_{20} & w_{21} & w_{22} & & \\
 & & & & & & & & & w_{00} & w_{01} & w_{02} & & & w_{10} & w_{11} & w_{12} & & & w_{20} & w_{21} & w_{22}
\end{bmatrix}
$$

$$
\times
\begin{bmatrix}
b_{00} \\ b_{01} \\ b_{02} \\ b_{10} \\ b_{11} \\ b_{12} \\ b_{20} \\ b_{21} \\ b_{22}
\end{bmatrix}
=
\begin{bmatrix}
a_{00} \\ a_{01} \\ a_{02} \\ a_{03} \\ a_{04} \\ a_{10} \\ \vdots \\ \vdots \\ a_{34} \\ a_{40} \\ a_{41} \\ a_{42} \\ a_{43} \\ a_{44}
\end{bmatrix}
$$