VAR(p) Parameter Count: The Curse of Dimensionality

Parameters per equation: $1 + K \times p$

Total parameters: $K(1 + Kp) + K(K + 1)/2$

(coefficients + covariance matrix)

Model	Coefficients	Total
K=2, p=1	2(1+2×1) = 6	**+ 3 = 9**
K=3, p=2	3(1+3×2) = 21	**+ 6 = 27**
K=5, p=4	5(1+5×4) = 105	**+ 15 = 120**
K=10, p=4	10(1+10×4) = 410	**+ 55 = 465**

Warning: Parameters grow as $K^2 \times p$ — need lots of data!