

$$Q\theta = \mathbb{E} [\text{Sum} [f_i c_i, \{i, 3\}] + \text{Sum} [f_{i,j} u_i w_j, \{i, 3\}, \{j, 3\}]]$$

$$\mathbb{E} [C_1 f_1 + C_2 f_2 + C_3 f_3 + U_1 W_1 f_{1,1} + U_1 W_2 f_{1,2} + U_1 W_3 f_{1,3} + U_2 W_1 f_{2,1} + U_2 W_2 f_{2,2} + U_2 W_3 f_{2,3} + U_3 W_1 f_{3,1} + U_3 W_2 f_{3,2} + U_3 W_3 f_{3,3}]$$