

f =

$$\begin{aligned} & d_{cu}/(c_{cu} - B*c_{bal})^{ETAc} - la_{cu} - (B*BETTA*d_{cup})/(c_{cup} - B*c_{cu})^{ETAc} \\ & \quad la_{cu}*w_{cu} - (THETA*d_{cu})/(1 - n_{cu})^{ETAl} \\ & \quad BETTA*la_{cup}*(rk_{cup} - DELTA + 1) - la_{cu} \\ & \quad (a_{cu}*n_{cu}^{ALFA}*(ALFA - 1))/(k_{cu}^{ALFA}*rk_{cu}) + 1 \\ & \quad w_{cu} - ALFA*a_{cu}*k_{cu}^{(1 - ALFA)}*n_{cu}^{(ALFA - 1)} \\ & \quad \quad y_{cu} - iv_{cu} - c_{cu} \\ & \quad \quad a_{cu}*k_{cu}^{(1 - ALFA)}*n_{cu}^{ALFA} - y_{cu} \\ & \quad \quad iv_{cu} - k_{cup} - k_{cu}*(DELTA - 1) \\ & \quad \quad \quad c_{cu} - c_{balp} \\ & \quad \quad \quad RHOA*\log(a_{cu}) - \log(a_{cup}) \\ & \quad \quad \quad RHOD*\log(d_{cu}) - \log(d_{cup}) \end{aligned}$$