The equations to be log linearized in Dynare:

$$\varphi_d(d) = 1 + 2\kappa(d - \bar{d}) \quad \textbf{(1)}$$

$$\tilde{m} = \beta \frac{c}{c'} \frac{\varphi_d(d)}{\varphi_d(d')} \quad \textbf{(2)}$$

$$z' = \rho_z z + \sigma_z \varepsilon_z' \quad \textbf{(3)}$$

$$\xi' = \rho_\xi \xi + \sigma_\xi \varepsilon_\xi' \quad \textbf{(4)}$$

$$y = zk^\theta n^{1-\theta} \quad \textbf{(5)}$$

$$\frac{w}{c} = \frac{\alpha}{1-n} \quad \textbf{(6)}$$

$$\frac{1}{c} = \beta\left(\frac{R-\tau}{1-\tau}\right)\frac{1}{c'} \quad \textbf{(7)}$$

$$wn + b - \frac{b'}{R} + d - c = 0 \quad \textbf{(8)}$$

$$(1-\theta)zk^\theta n^{-\theta} = \frac{w}{1-\mu\varphi_d(d)} \quad \textbf{(9)}$$

$$\tilde{m}\left[1 - \delta + (1-\mu'\varphi_d(d'))\theta z' k'^{\theta-1} n'^{1-\theta}\right] + \xi\mu\varphi_d(d) = 1 \quad \textbf{(10)}$$

$$R\tilde{m} + \xi\mu\varphi_d(d)\left(\frac{R(1-\tau)}{R-\tau}\right) = 1 \quad \textbf{(11)}$$

$$(1-\delta)k + y - wn - b + \frac{b'}{R} - k' - \left[d + \kappa(d - \bar{d})^2\right] = 0 \quad \textbf{(12)}$$

$$\xi(k' - b'\frac{1-\tau}{R-\tau}) = y \quad \textbf{(13)}$$