$$\frac{c}{\lambda_v(\theta)} = \frac{(1-\gamma)(y-b)}{r+\delta+\gamma\lambda_u(\theta)}$$

Use $\lambda_v(\theta) = \frac{\lambda_u(\theta)}{\theta}$

$$\Rightarrow \frac{c\theta}{\lambda_u(\theta)} = \frac{(1-\gamma)(y-b)}{r+\delta+\gamma\lambda_u(\theta)}$$

Total differentiation

$$\frac{c\lambda_u(\theta) - c\theta\lambda_u'(\theta)}{[\lambda_u(\theta)]^2} d\theta + 0\,dy$$

$$= \frac{(1-\gamma)(y-b)}{[r+\delta+\gamma\lambda_u(\theta)]^2}(-1)\gamma\lambda_u'(\theta)\,d\theta + \frac{(1-\gamma)}{r+\delta+\lambda_u(\theta)} dy$$

$$\Leftrightarrow \frac{c}{\lambda_u(\theta)}\left[1 - \frac{\theta\lambda_u'(\theta)}{\lambda_u(\theta)}\right] d\theta$$

$$= \frac{(1-\gamma)(y-b)}{r+\delta+\gamma\lambda_u(\theta)}\left[-\frac{\gamma\lambda_u'(\theta)}{r+\delta+\gamma\lambda_u(\theta)} d\theta + \frac{1}{y-b} dy\right]$$

$$\frac{c\theta}{\lambda_u(\theta)}$$

$$\Leftrightarrow \left[1 - \frac{\theta \lambda_u'(\theta)}{\lambda_u(\theta)}\right] d\theta$$

$$= - \frac{\gamma \lambda_u(\theta)}{r + 6 + \gamma \lambda_u(\theta)} \frac{\theta \lambda_u'(\theta)}{\lambda_u(\theta)} d\theta \frac{\theta}{\gamma} \frac{\gamma}{y - b} dy$$

Notice: $$\frac{\theta \lambda_u'(\theta)}{\lambda_u(\theta)} = \frac{\partial \lambda_u}{\partial \theta} \cdot \frac{\theta}{\lambda_u} = \varepsilon_{\lambda_u, \theta}$$

$$\Leftrightarrow \left[1 - \varepsilon_{\lambda_u, \theta} + \frac{\gamma \lambda_u(\theta) \varepsilon_{\lambda_u, \theta}}{r + 6 + \gamma \lambda_u(\theta)}\right] \underbrace{\frac{\gamma}{\theta} \frac{d\theta}{dy}}_{\varepsilon_{\theta, \gamma}} = \frac{\theta}{\gamma} \frac{\gamma}{y - b} dy$$

$$\Leftrightarrow \frac{(1 - \varepsilon_{\lambda_u, \theta})(r + 6 + \gamma \lambda_u(\theta)) + \gamma \lambda_u(\theta) \varepsilon_{\lambda_u, \theta}}{r + 6 + \gamma \lambda_u(\theta)} \varepsilon_{\theta, \gamma} = \frac{\gamma}{y - b}$$

$$\Leftrightarrow \frac{(r + 6)(1 - \varepsilon_{\lambda_u, \theta}) + \gamma \lambda_u(\theta)}{r + 6 + \gamma \lambda_u(\theta)} \varepsilon_{\theta, \gamma} = \frac{\gamma}{y - b}$$

$$\Leftrightarrow \varepsilon_{\theta, \gamma} = \frac{\gamma}{y - b} \cdot \frac{r + 6 + \gamma \lambda_u(\theta)}{(r + 6)(1 - \varepsilon_{\lambda_u, \theta}) + \gamma \lambda_u(\theta)}$$