Incumbent problem

- Firm static profit:

$$\pi(\Gamma, z, a) = \left\{ \max_{k,\ell} \; y - Rk - w\ell - p_c \frac{y}{\varphi} \quad \text{s.t.} \quad k \leq \gamma(\varphi^{-1})\, a \right\} \tag{4}$$

- A firm's flow budget constraint (in final good terms) is:

$$a' = \pi(\Gamma, z, a) + R\, a + (1 - \delta) a - x \tag{5}$$

- Homogeneous good is the numeraire.
  - R: real rental rate of capital
  - p_c: real carbon tax per unit of emission
  - δ: capital depreciation rate
  - w: real wage

- Assuming functional form for leverage ratio:

$$\gamma(s) = 1 + \exp\left(\frac{1}{s}\right) \tag{6}$$