1 Two-period model

Given γ_0

$$\max_{l_1, e_1, \mu_1, l_2, \mu_2} \left\{ A(m_0 + \mu_1) \cdot F^\alpha \cdot l_1^{1-\alpha} \left[P^W + \tau\left(\gamma_0\right) \right] - l_1 - \mu_1 - e_1 \right\} +$$

$$\left\{ A(m_1 + \mu_2) \cdot F^\alpha \cdot l_2^{1-\alpha} \left[P^W + \tau\left(\gamma(e_1)\right) \right] - l_2 - \mu_2 \right\}$$

where $m_1 = m_0 + \mu_1$

1.1 Interior F.O.C.'s

$$l_1 : (1-\alpha) A(m_0 + \mu_1) \cdot \left(\frac{F}{l_1}\right)^\alpha \left[P^W + \tau\left(\gamma_0\right) \right] = 1 \tag{1}$$

$$\mu_1 : \frac{\partial A(m_0 + \mu_1)}{\partial \mu_1} \cdot F^\alpha \cdot l_1^{1-\alpha} \left[P^W + \tau\left(\gamma_0\right) \right] + \frac{\partial A(m_0 + \mu_1 + \mu_2)}{\partial \mu_1} \cdot F^\alpha \cdot l_2^{1-\alpha} \left[P^W + \tau\left(\gamma(e_1)\right) \right] = 1 \tag{2}$$

$$e_1 : A(m_0 + \mu_1 + \mu_2) \cdot F^\alpha \cdot l_1^{1-\alpha} \frac{\partial \tau}{\partial \gamma} \frac{\partial \gamma}{\partial e_1} = 1 \tag{3}$$

$$l_2 : (1-\alpha) A(m_0 + \mu_1 + \mu_2) \cdot \left(\frac{F}{l_2}\right)^\alpha \left[P^W + \tau\left(\gamma(e_1)\right) \right] = 1 \tag{4}$$

$$\mu_2 : \frac{\partial A(m_0 + \mu_1 + \mu_2)}{\partial \mu_2} \cdot F^\alpha \cdot l_2^{1-\alpha} \left[P^W + \tau\left(\gamma(e_1)\right) \right] = 1 \tag{5}$$

1.2 What happens when γ_0 decreases?

From Equation 1, when $\gamma_0 \downarrow$, $\frac{A(m_0 + \mu_1)}{l_1^\alpha} \uparrow$. Two cases:

- $\mu_1 \uparrow$, l_1 unchanged / $\mu_1 \uparrow\uparrow$, $l_1 \uparrow$

- μ_1 unchanged, $l_1 \downarrow$ / $\mu_1 \downarrow$, $l_1 \downarrow\downarrow$

Two cases:

1. $\mu_1 \uparrow$ and $l_1 \uparrow$: increase investment in productivity

- investment in politics (e_1) ↓

- l_2↑

2. μ_1↓ and l_1↓: reduce investment in productivity

- investment in politics (e_1) ↑

- l_2↓

2 Literature

- Hillman (1991): decide between lobbying and investing in internal monitoring of production. In book at library, HF1372.158 1991 3rd Floor (Helpman and Razin)

- Rodrik (1996): use labor to make lobbying (p. 5/15)

- Krueger (1974)

- Sturzenegger F. (1993) never got published

3 Feedback

SEAs, Tampa, November 2017

- Maia L. (Richmond): Why would lobby invest in technology?

- Woan Foon: what happens when there are more countries (as in GATT)?

- Kerem: why not K instead of A?

- Kamal: changing preferences...