

# The Economics of Non-compete Clauses

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# Non-compete clauses

“[N]on-compete agreements are contracts between workers and firms that delay employees' ability to work for competing firms.” (US Treasury report)

May constrain employee's external opportunities on

- Industry
- Geography
- Time interval

**20%** of US employees are bounded by non-compete (Prescott, Bishara, and Starr, 2018)

# Theoretical framework

## Setup

- The firm produces using human capital contributed by its employee
- The firm provides access to the assets of the firm to enable the employee to produce
- The employee has the threat of competing
- The threat is stronger the more access the firm has provided
- The firm can impose a non-compete clause to limit damage if the employee leaves

# Theoretical framework

## Question and tradeoffs

- Question: What is the optimal degree of access and tightness of non-compete clause, conditional on agent's human capital (ability)?
- Tradeoff I: Access makes the employee more productive inside, but also outside
- Tradeoff II: Non-compete limits ex-post bargaining but affects ex ante participation constraint

# Access

Access is the ability to use and work with a critical resource of the firm (Rajan and Zingales, 1998)

## Critical resource

- idea
- customers
- business plan

# Model description I

- A risk neutral firm offers a contract to a risk neutral agent including
  - the non-compete clause  $\lambda \in [0, \bar{\lambda}]$  where  $\bar{\lambda}$  is the legal upper bound on the strength of the noncompete
  - the degree of access  $\theta \in [0, 1]$
  - (unconditional) wage

All above is observable and verifiable  
Production

$$F(A, \theta) = A\theta \quad (1)$$

# Model description II

## Timeline

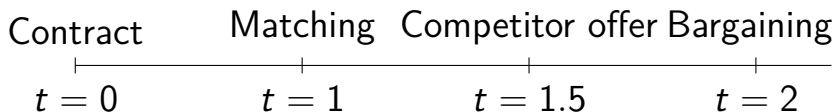


Figure: Time line

- The employee has a type dependent PC at  $t=0$  that increases in ability
- The key friction of the model is that the employee cannot commit to stay with the firm ( $t = 1.5$ )

# Model description

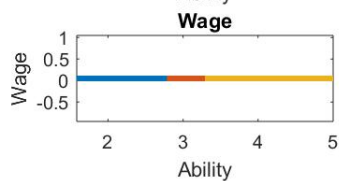
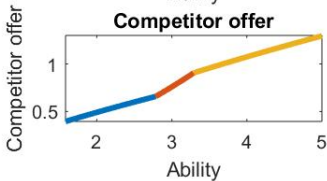
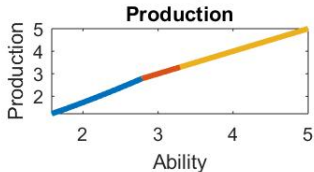
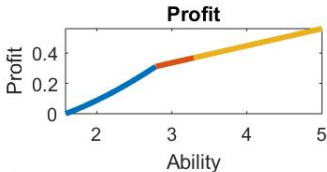
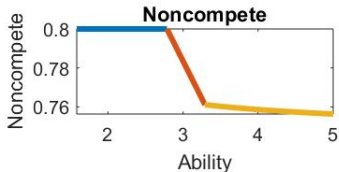
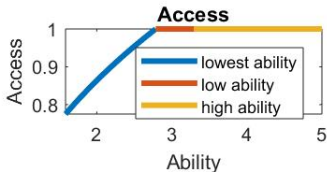
## Outside option and firm damage

- The firm suffers a damage,  $d(A, \theta, \lambda)$ , if the employee leaves to the competitor
- The damage increases if the employee was provided higher access, laxer non-compete, or the employee is higher ability
- The employee's outside option is  $\alpha d(A, \theta, \lambda)$ , where  $\alpha$  represents the transferability of access



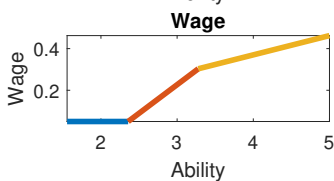
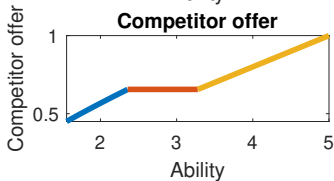
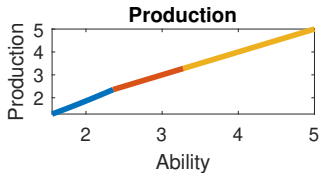
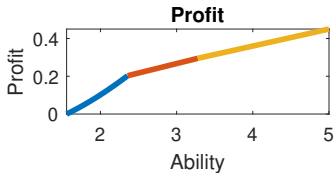
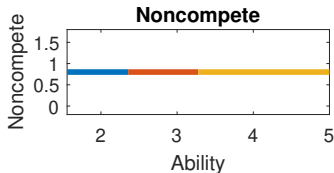
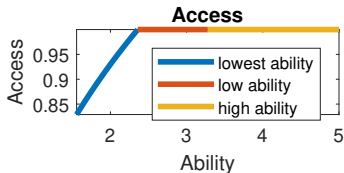
# Results $\alpha > 1$

Small damage to the firm



# Results $\alpha < 1$

Large damage to the firm



## Results in words

- The firm requires a minimum ability for employment, below which the potential damage would be too high
- Lowest ability agents are subject to the tightest possible non-compete and minimum wage
- As ability increases, more access is provided. Access increases not only the payoff of the employee, but also the payoff of the firm
- If  $\alpha > 1$  agents with ability above a threshold (red and yellow lines) are compensated with a laxer non-compete. This is a cheaper instrument for the firm than wage
- If  $\alpha < 1$  the converse is true

# Firm size

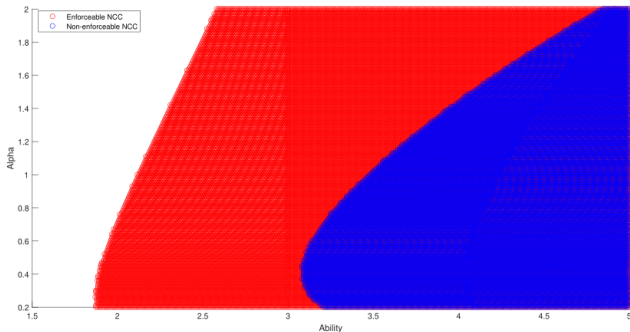


Figure: Firm size

- The firm size is larger if non-competitive is enforceable i.e.: the higher  $\bar{\lambda}$ , the legally allowed maximum tightness of non-competitive

# Socially optimal $\bar{\lambda}$

Main tradeoff is between

- employment/firm size
- reduced benefits from mobility

If  $\bar{\lambda} \uparrow$

- larger firms (more production)
- decreased outside option, especially costly for high ability agents

Distribution of types is crucial to determine which effect dominates

# Summary

- Optimal contracting between a firm and an agent on access and non-compete
- Crucial parameter ( $\alpha$ ) is the ratio between employee gain and firm damage
- Kini, Williams and Yin (RFS 2020) empirically establishes similar results
- Socially optimal regulation ( $\bar{\lambda}$ ) trades off firm size to decreased outside option