ECON 736 Presentation
Assortative Matching with Large Firms

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November 30, 2021

Roadmap of Talk

Roadmap of Talk

Introduction

Motivation

Research Questions

Research Question Provide a unifying theory of production with a trade-off between hiring more versus better workers.

Results

- A sorting condition that captures the trade-off between quantity and quality of workers.

The model should deliver the following results:

- Characterization of matching in equilibrium.
    - When is matching assortative **(PAM)** or **(NAM)**?
        - When are more productive workers hired by more productive firms?
    - Under what conditions more productive firms hire more workers in equilibrium?

Roadmap of Talk

Model Setup

Production Function

Equilibrium

Feasible Demand

Equilibrium Definition

Equilibrium Characterization

Equilibrium Assortativity

Sketch of Proposition 1

Conditions for Assortative Equilibrium

Main Results: Proposition 2

Sketch of Proposition 2

Equilibrium Assignment

Roadmap of Talk

Title

- To simulate the model we will use the following production function:

$$f(x, y, \theta) = \left(\omega_A x^{(1-\sigma_A)/\sigma_A} + (1 - \omega_A)\, y^{(1-\sigma_A)/\sigma_A}\right)^{\sigma_A/(1-\sigma_A)} \theta^{\omega_B} \tag{1}$$

- Computing condition **??** for this production function we get:

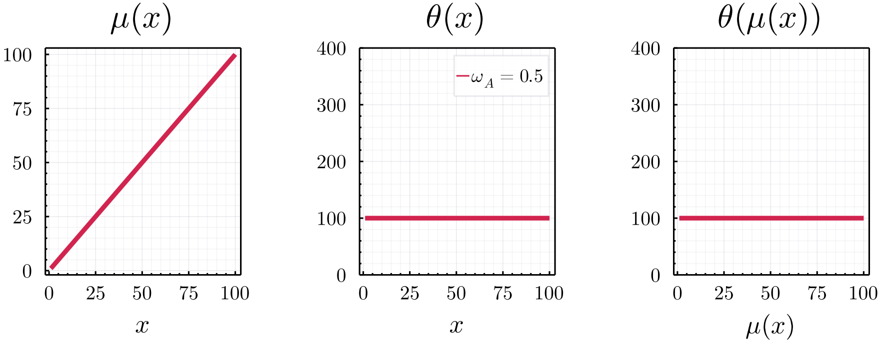
$$-\frac{(1 - \sigma_A)\,(1 - \omega_A)\,\omega_A x^{\frac{1}{\sigma_A}} y^{\frac{1}{\sigma_A}} \theta^{\omega_B} \left(\omega_A x^{\frac{1}{\sigma_A}-1} + (1 - \omega_A)\, y^{\frac{1}{\sigma_A}-1}\right)^{\frac{\sigma_A}{1-\sigma_A}}}{\sigma_A \left(\omega_A \left(y x^{\frac{1}{\sigma_A}} - x y^{\frac{1}{\sigma_A}}\right) + x y^{\frac{1}{\sigma_A}}\right)^2} > 0 \tag{2}$$

- Clearly the condition for **PAM** holds if $\sigma_A < 1$ and we will have **NAM** if $\sigma_A > 1$.

Effect of changing ω_A

- When $\omega_A = 0.5$ workers and firms are equally weighted.

- Fully symmetric model, mathing $\mu(x) = x$, reach constant size

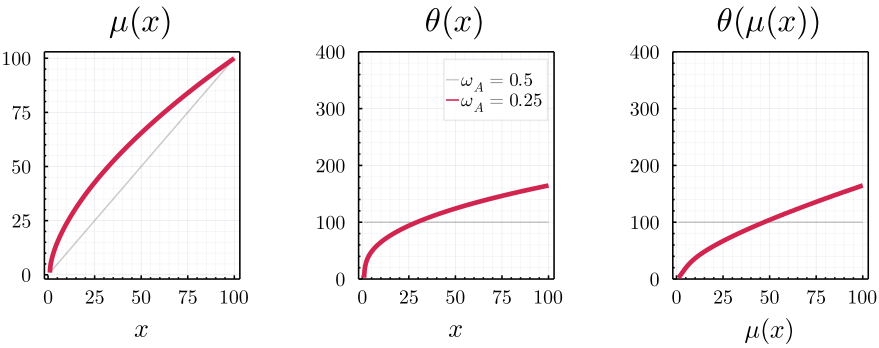


- **Parametrization** $x, y \sim U[0,1]$, $\omega_B = 0.5$ and $\sigma_A = 0.9$

Effect of changing ω_A

- $\omega_A \in (0.5, 1]$ worker type is more determinant in production.

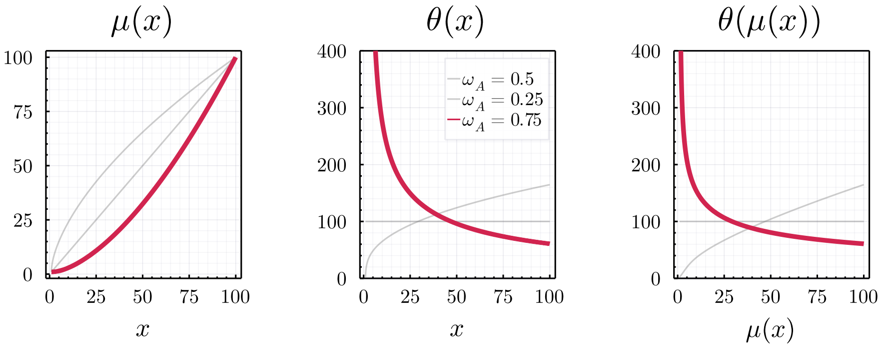
- The size effect dominates the type effect $\implies$ matching is concave and firm size is increasing.



- **Parametrization** $x, y \sim U[0, 1]$, $\omega_B = 0.5$ and $\sigma_A = 0.9$

Effect of changing ω_A

- $\omega_A \in [0, 0.5)$ firm type is more determinant in production.
- The type effect dominates the size effect $\implies$ matching is convex and firm size is decreasing.



- **Parametrization** $x, y \sim U[0, 1]$, $\omega_B = 0.5$ and $\sigma_A = 0.9$
- ▸ Effect in wages

Roadmap of Talk

Use it to intimidate audiences!

Now you can make it clear you've done a shitload of work
without having to show everything! ▸ Back

You label a frame with the `[label=name]` option, and then point a link to it

You can make an object a link using the `\hyperlink{label}{object}` command