Selection, Innovation, Competition and Growth

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Introduction

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How can we interpret this process?

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  - Embodied: Initial productivity of new plants improves over time

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  - 60% of per capita growth is accounted for selection, embodied technical progress

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  - Bugamelli, Fabiani and Sette (2008), Italy; Chen, Imbs, Scott (2008), EU; Griffith, Harrison, and Simpson (2008), EU Single Market Program

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  - Trade liberalization increases the number of competitors
    - No other channels (Specialization, Spillovers, Terms of trade)

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- The cost function of a firm with productivity z

$$y = \lambda + c(z)q \qquad c(z) = z^{-\eta}, \quad \eta > 0$$

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- Within-sector symmetry: z is sector specific

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  - Market share effect:
    - Average market share e
    - Sector relative productivity $\tilde{z}$, relative to the mean $\bar{z}_t$

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However, an increase in the number of firms reduces market shares more than compensating the markup effect

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- Firms keep the same market share but market size increases

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