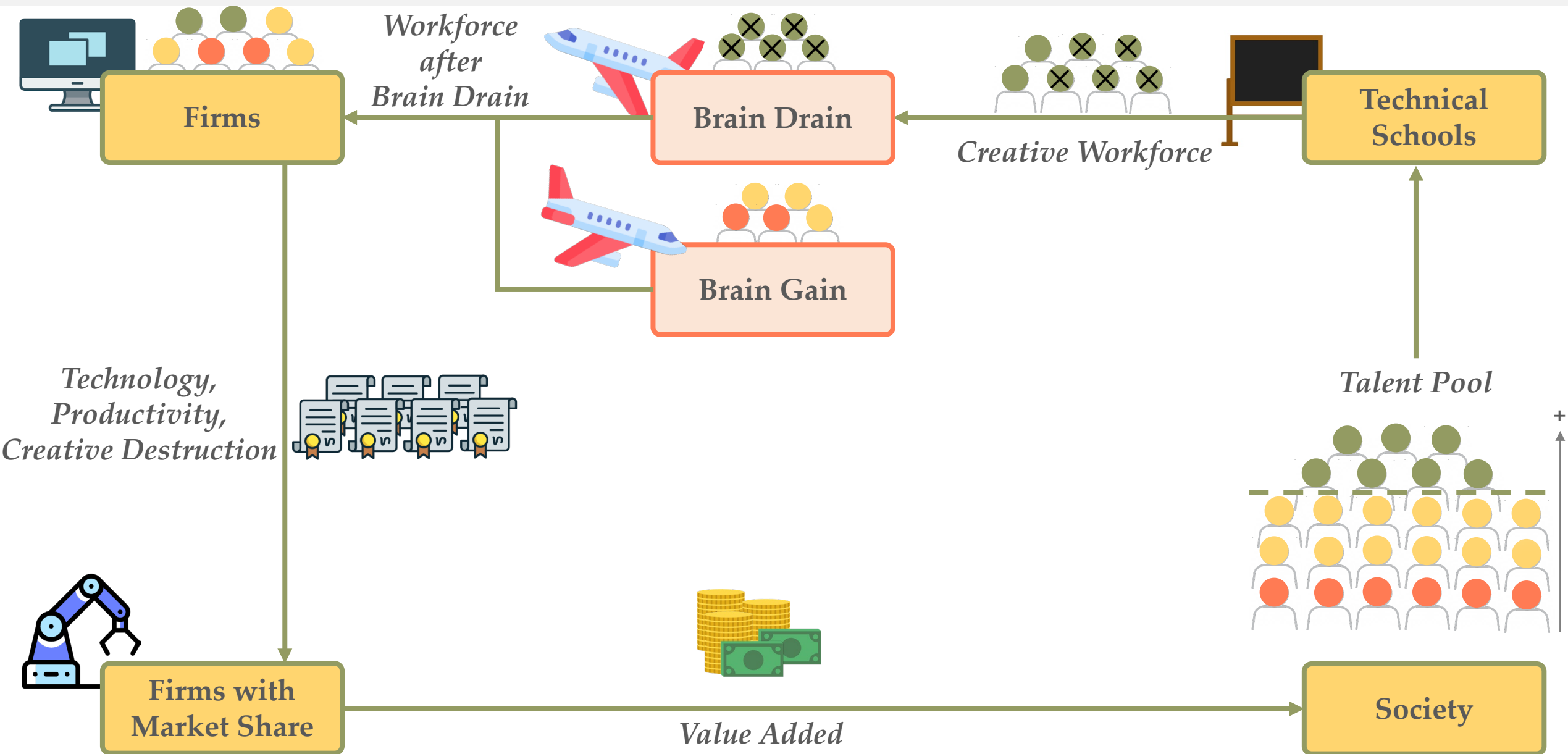


Economic Growth through Creative Destruction

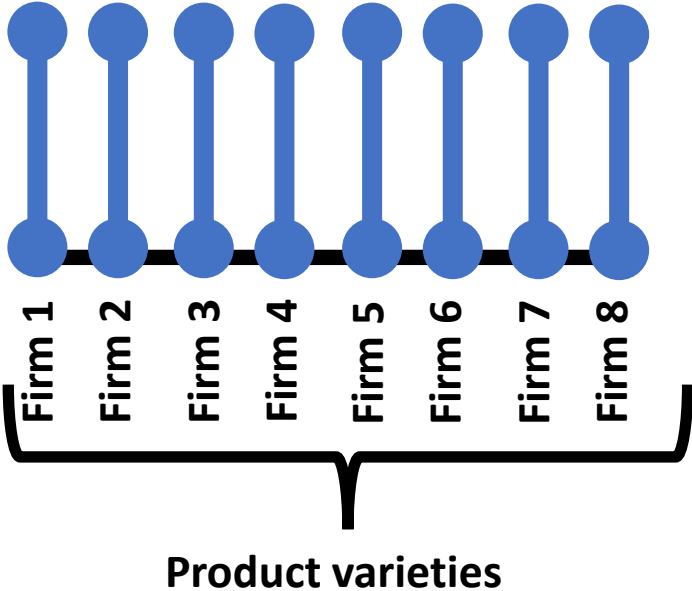
Ufuk Akcigit
University of Chicago

ABCDE Conference - 6/5/2023

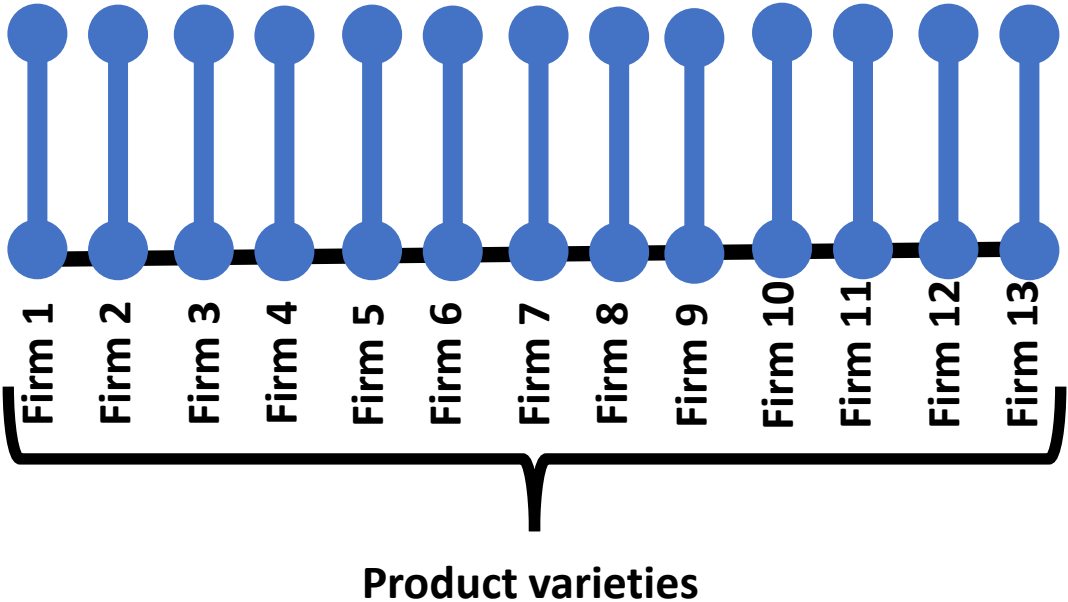
Economic Growth through Creative Destruction



Productivity Dynamics in **Romer** Model

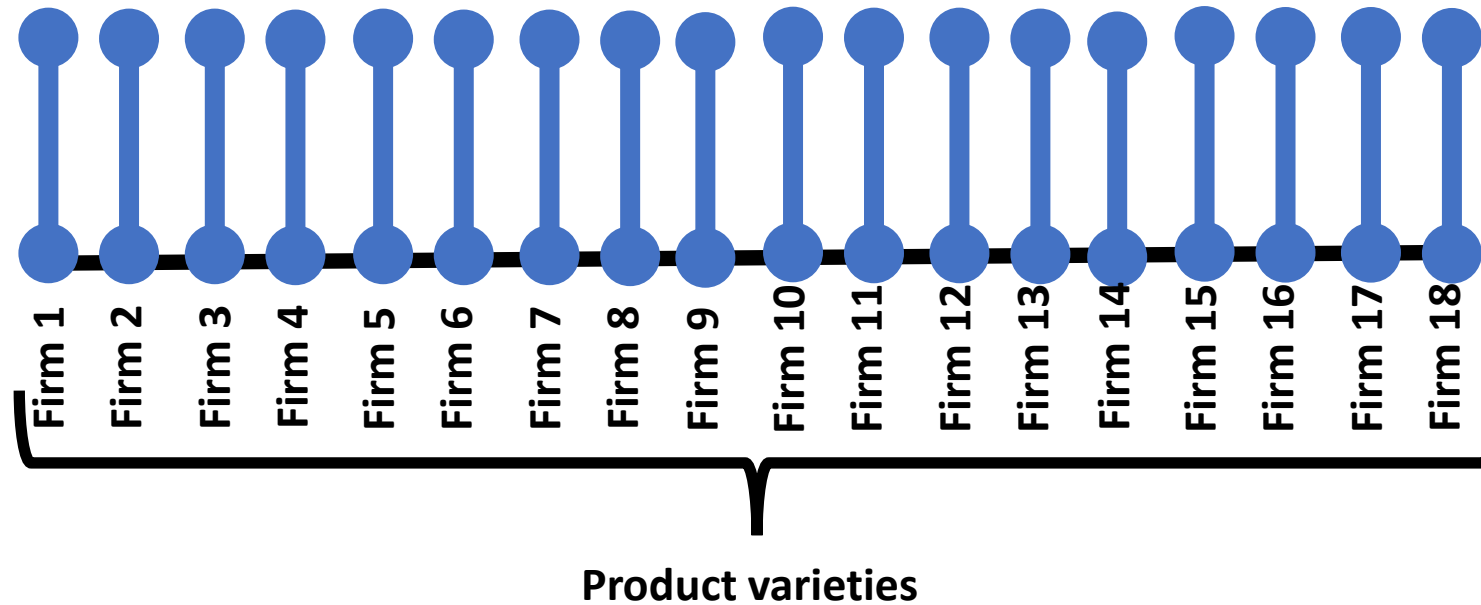


Productivity Dynamics in **Romer** Model

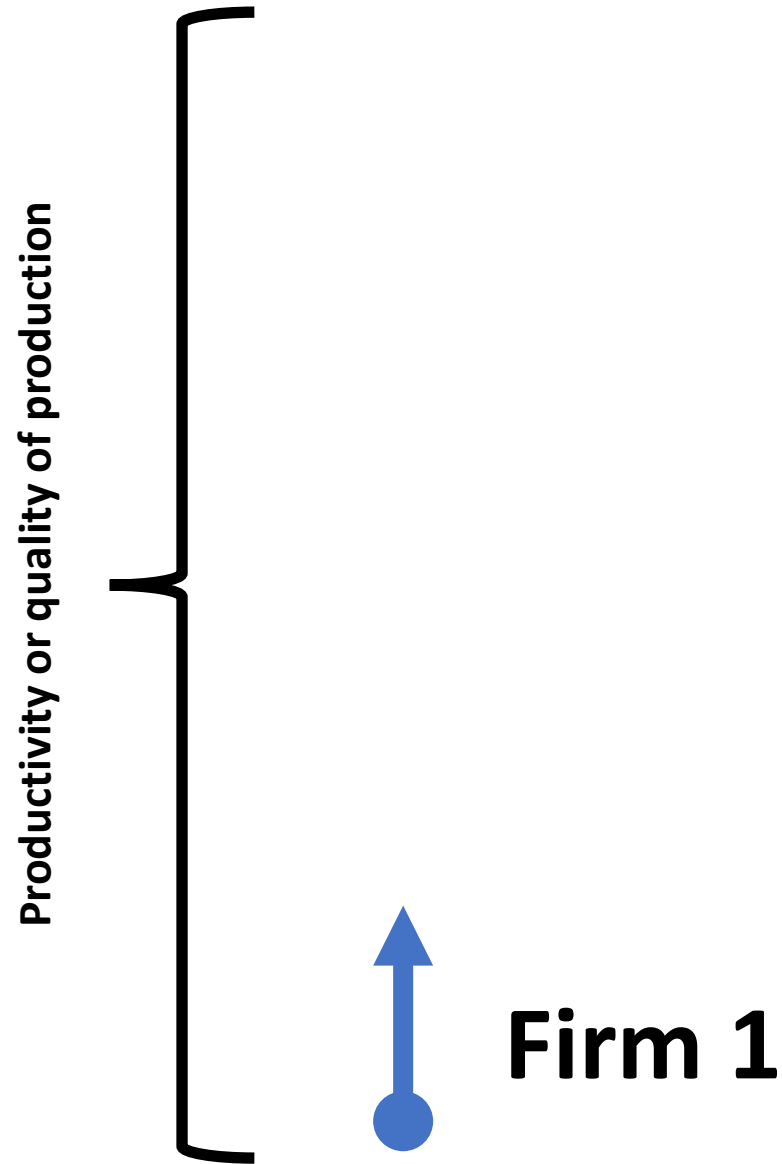


Productivity Dynamics in **Romer** Model

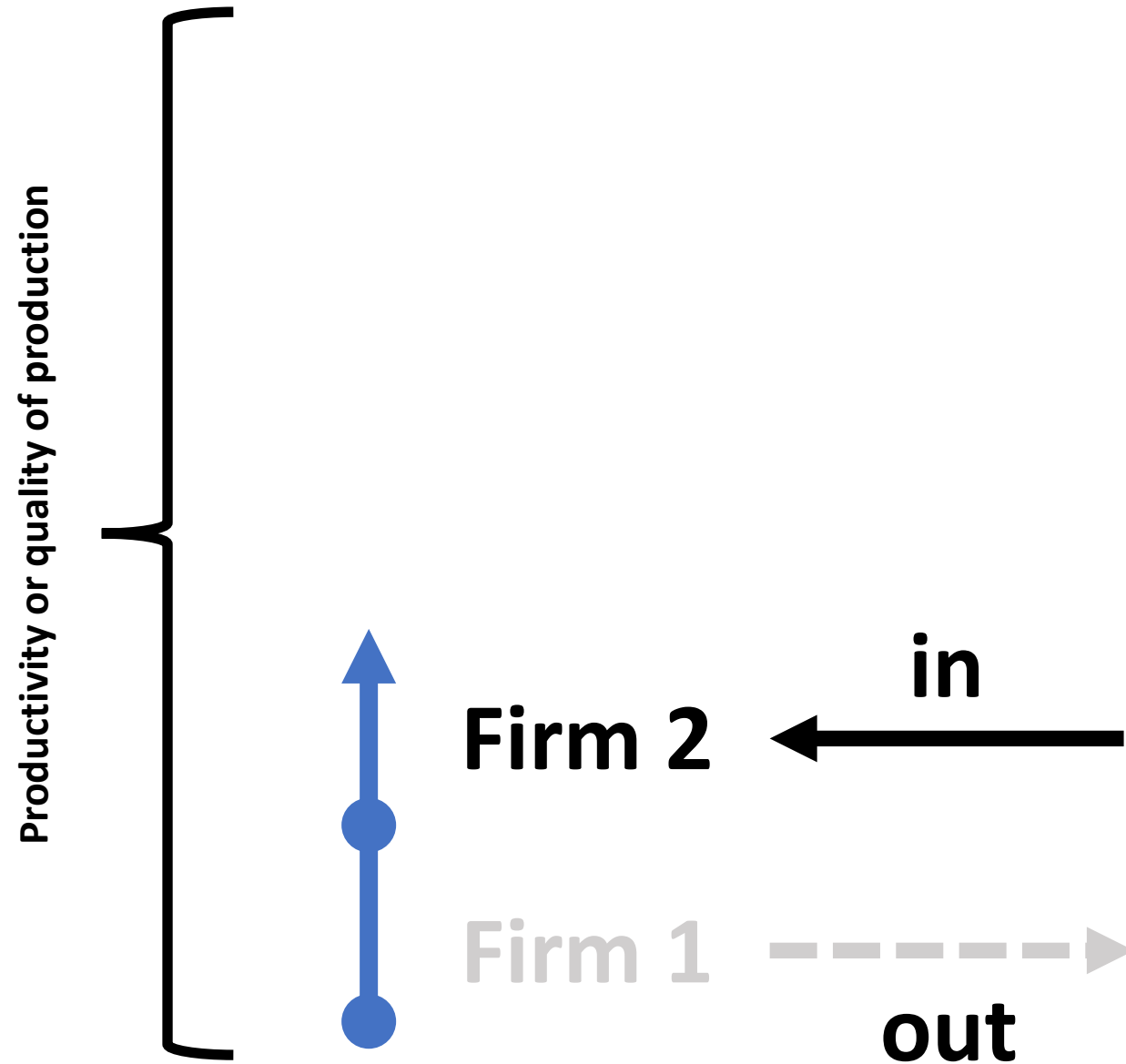
**No Exit,
No Turnover!**



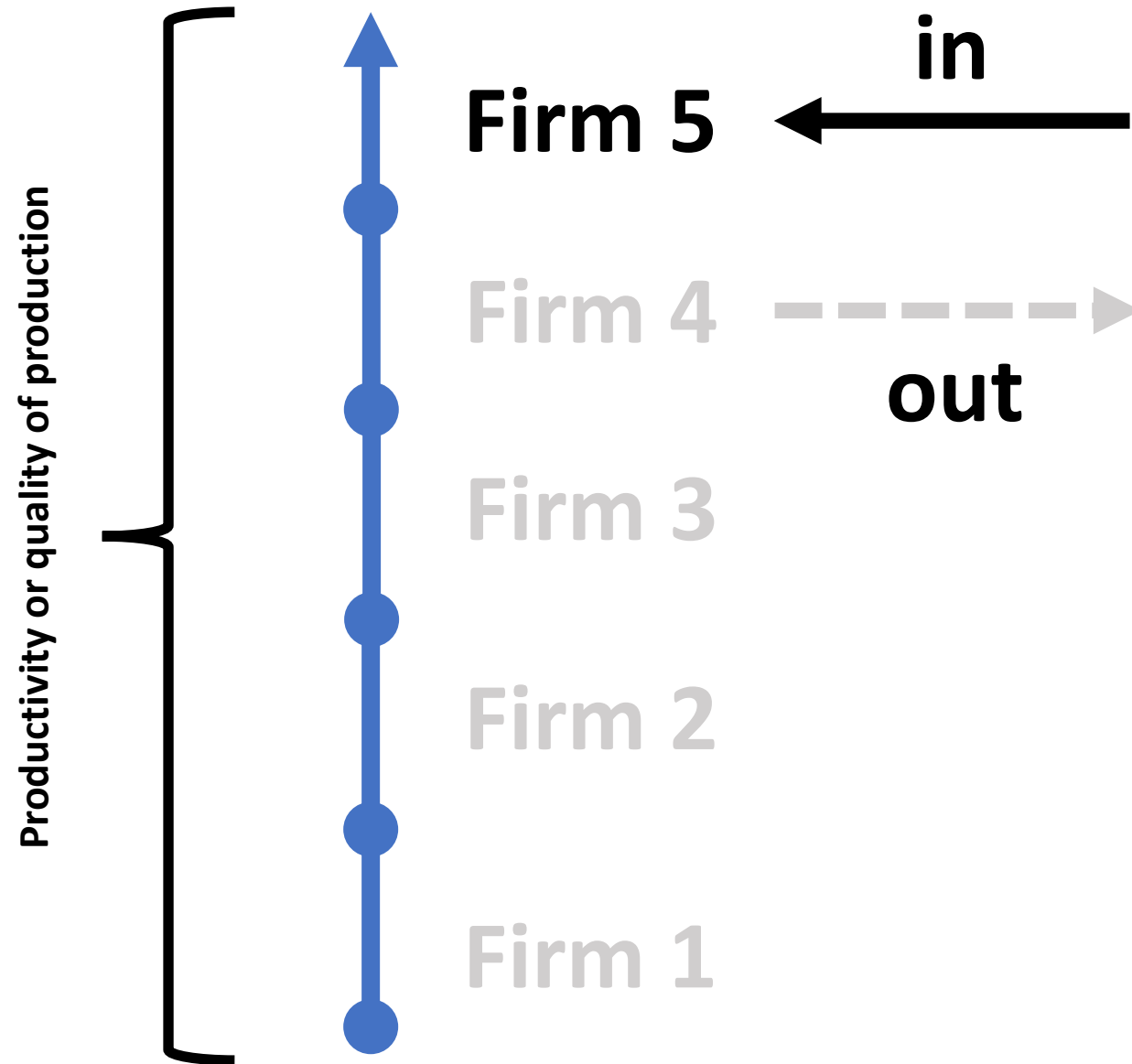
Productivity Dynamics in **Schumpeterian** Models



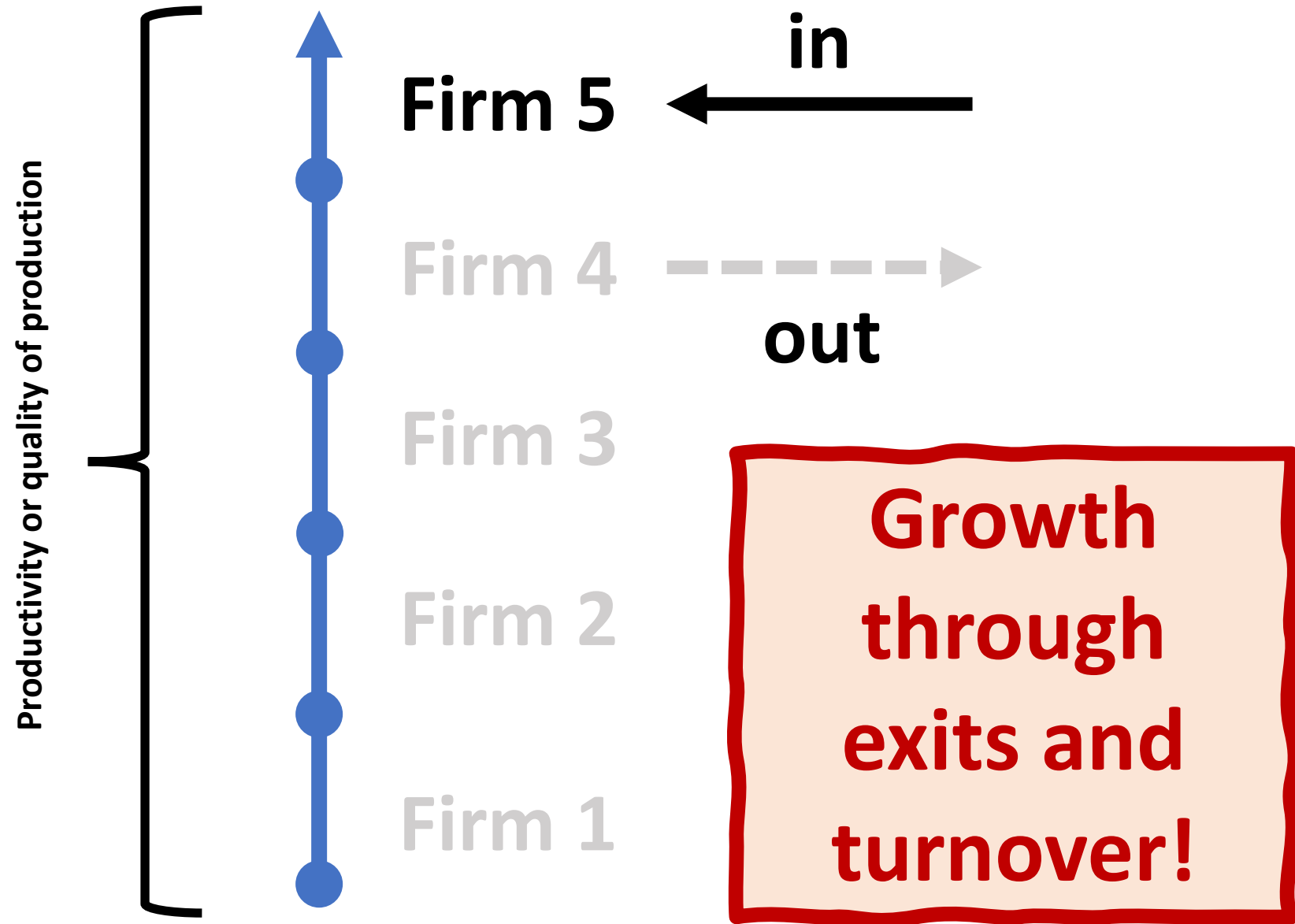
Productivity Dynamics in **Schumpeterian** Models



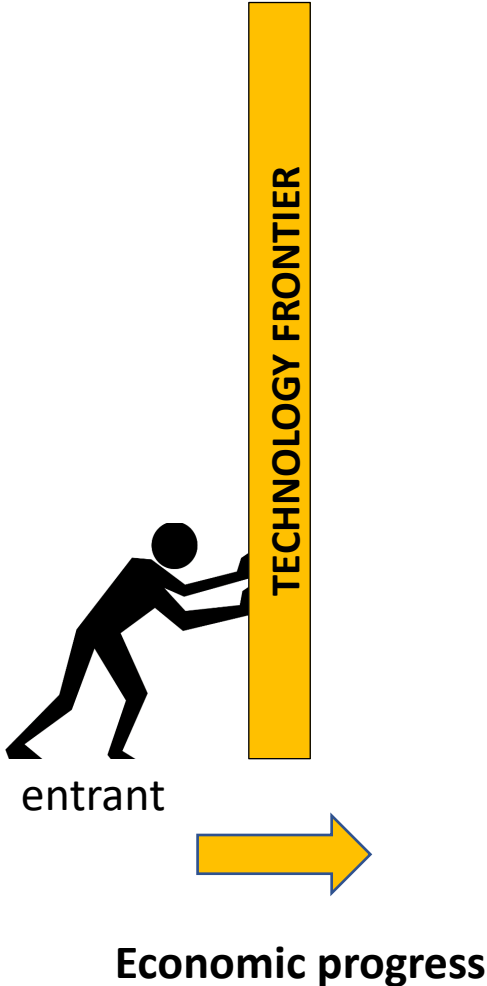
Productivity Dynamics in **Schumpeterian** Models



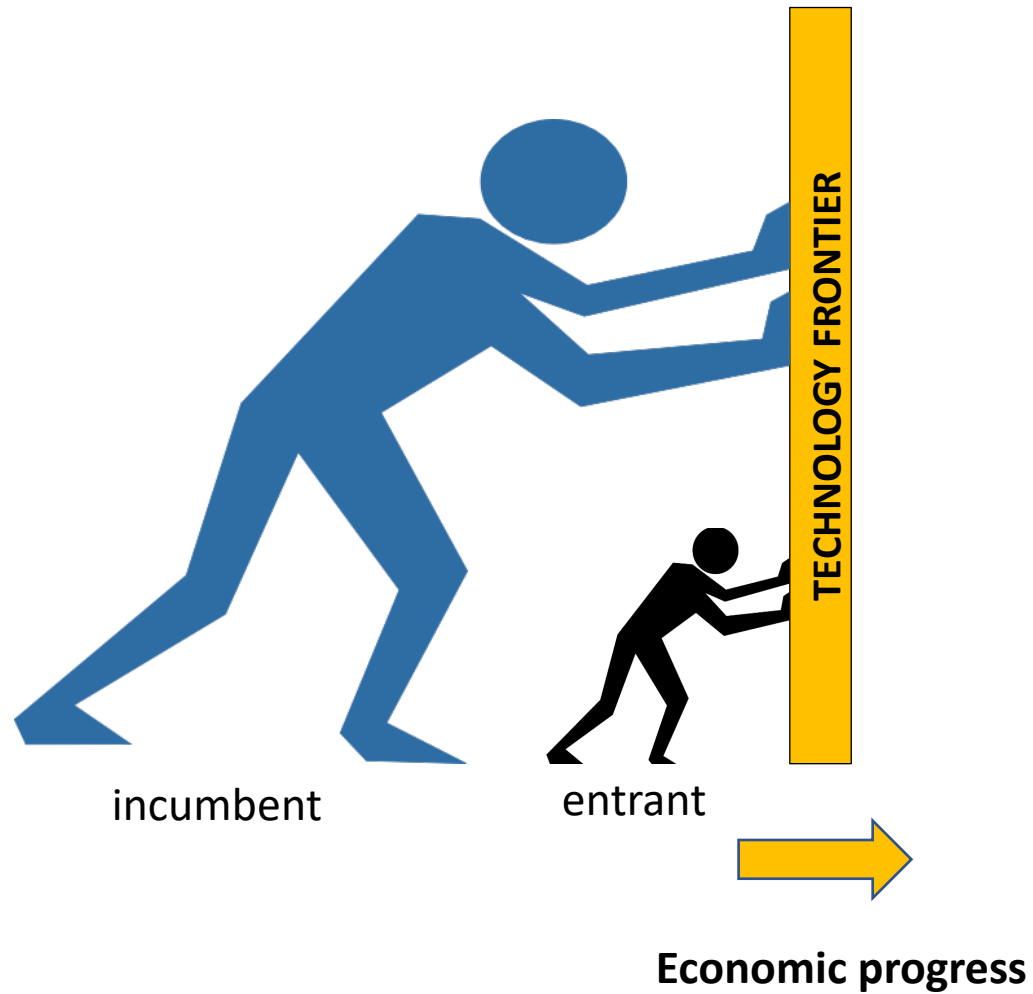
Productivity Dynamics in **Schumpeterian** Models



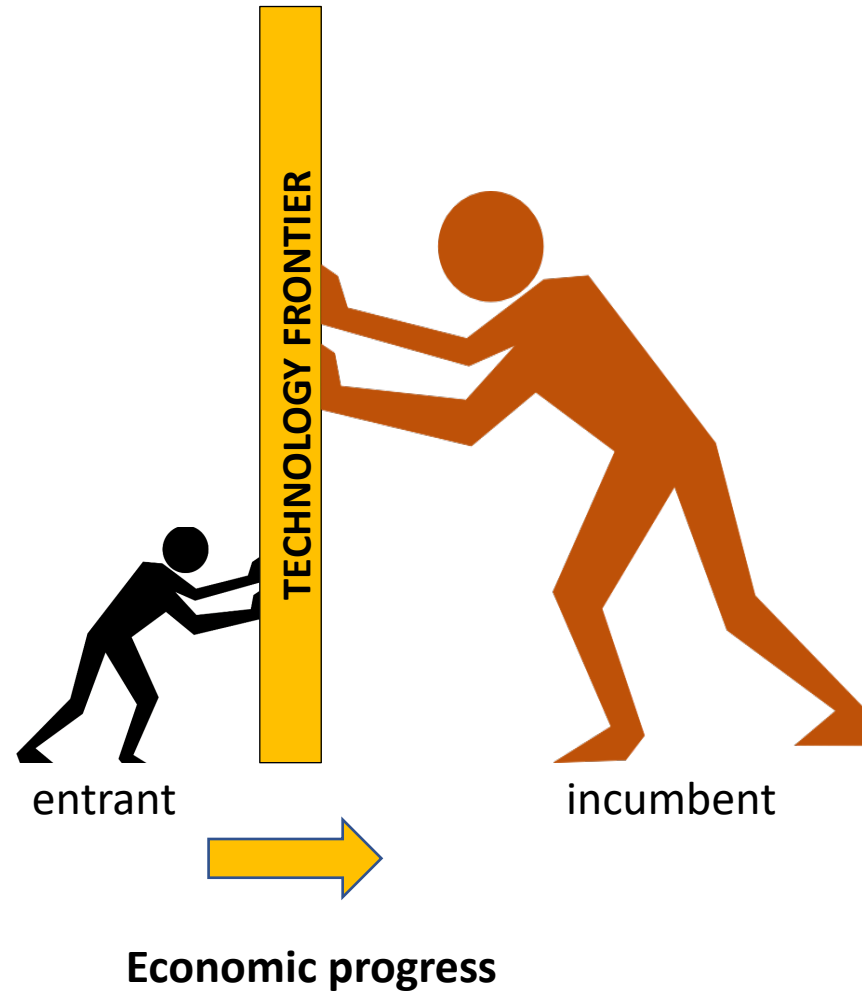
Entrants push the frontier through creative destruction



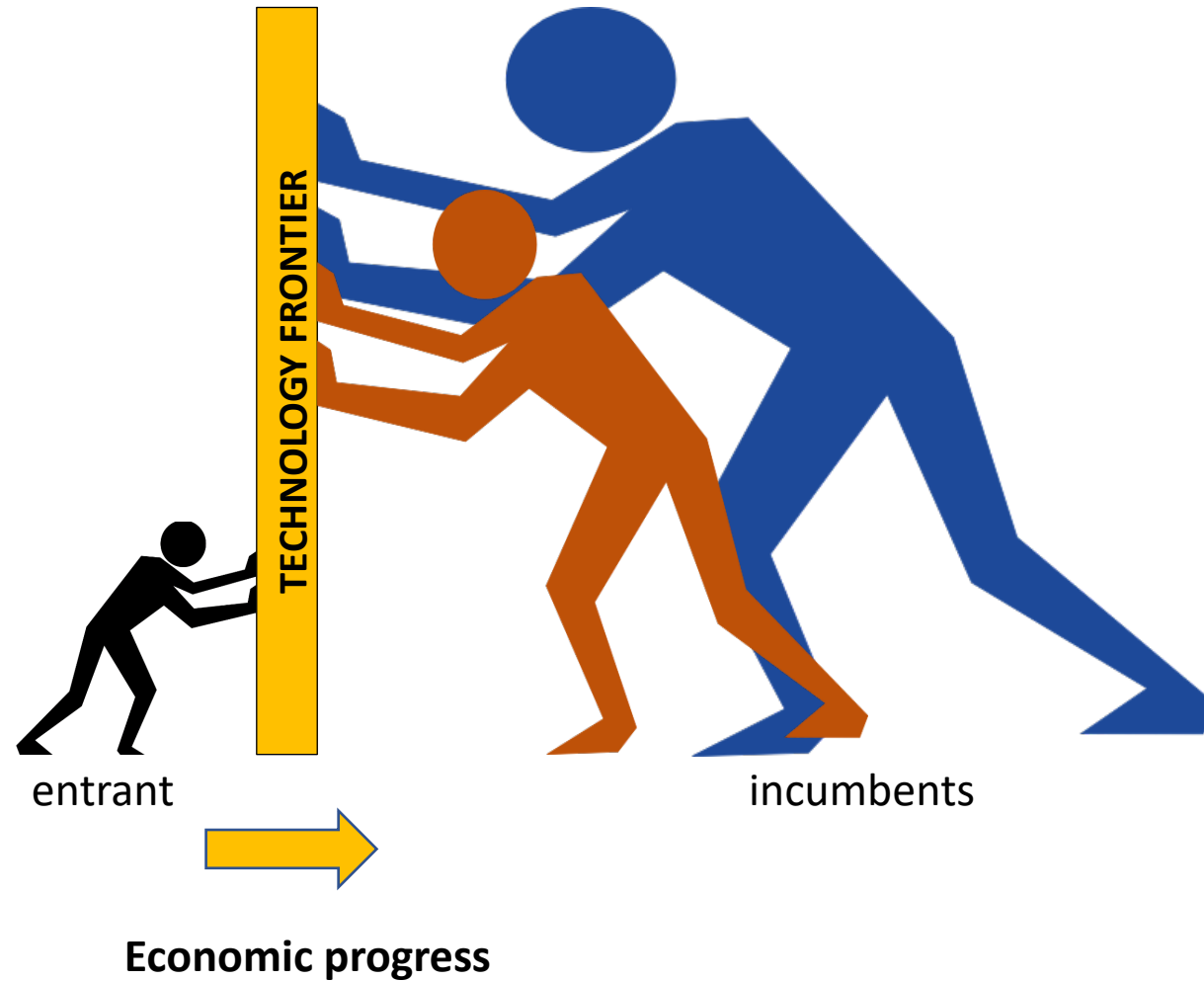
Incumbent joins the competition



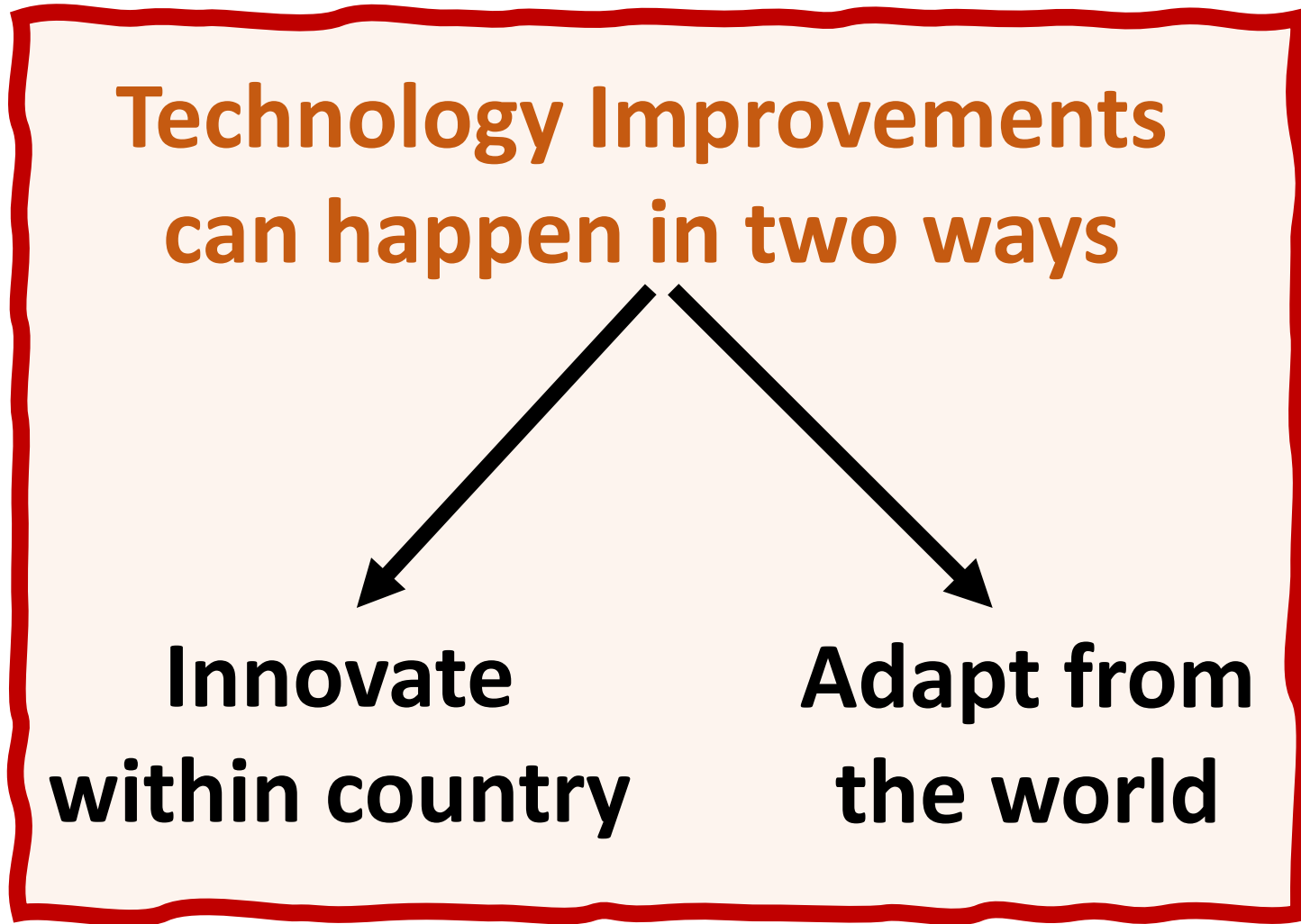
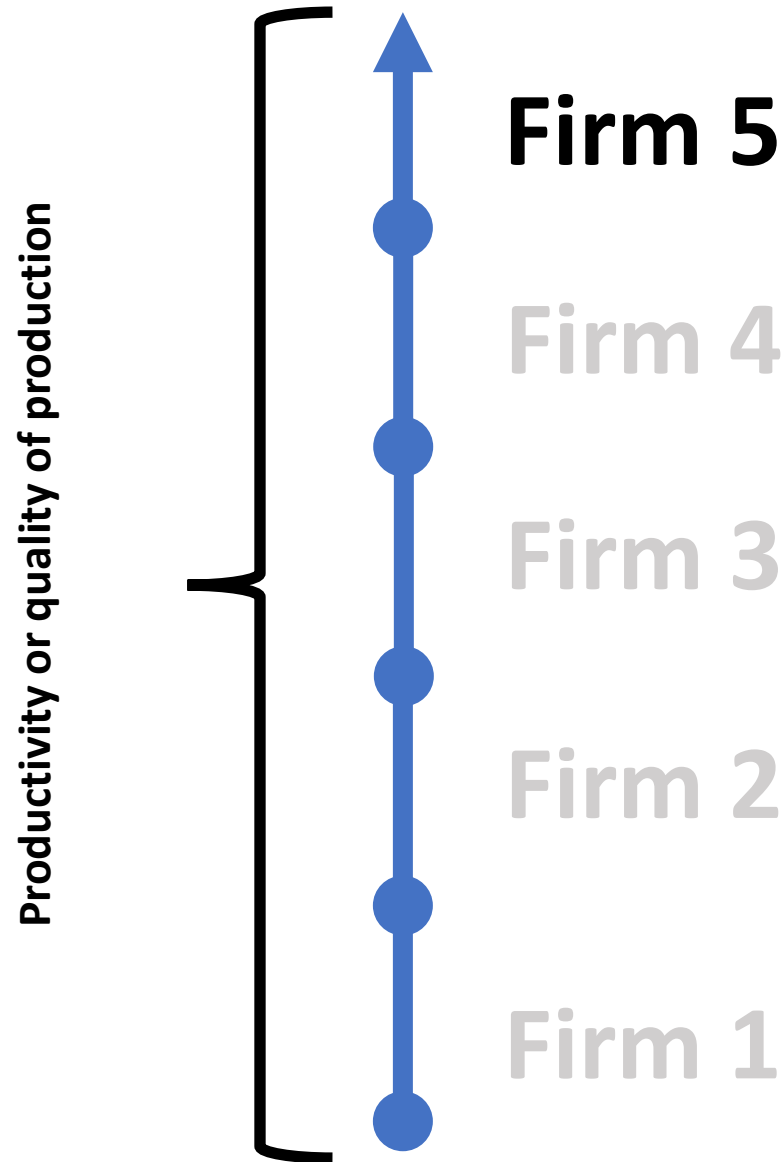
Incumbent strategically resists the change



Multiple incumbents collude to resist



Productivity Dynamics in **Schumpeterian** Models



Technology:

Not New to Country
Not New to World

New to Country
Not New to World

New to Country
New to World

Options:

Deepening

Deepening + Diffusion

Deepening + Diffusion
+ Discovery

Contribution
to Growth of
 A, K

K , Capital

A , Productivity

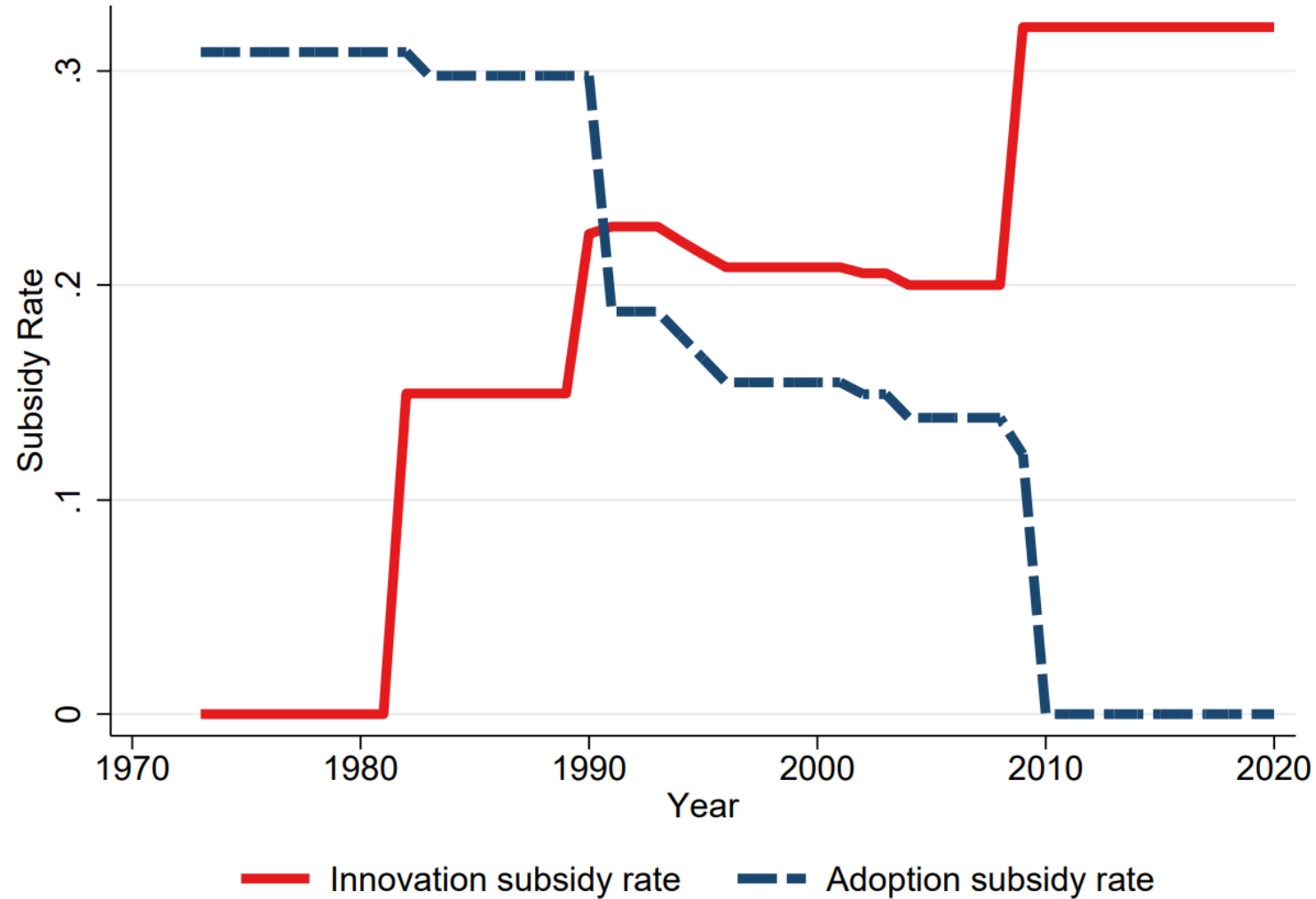


JUGAAD



Proximity to the Frontier

Korea and the Advantage of Backwardness

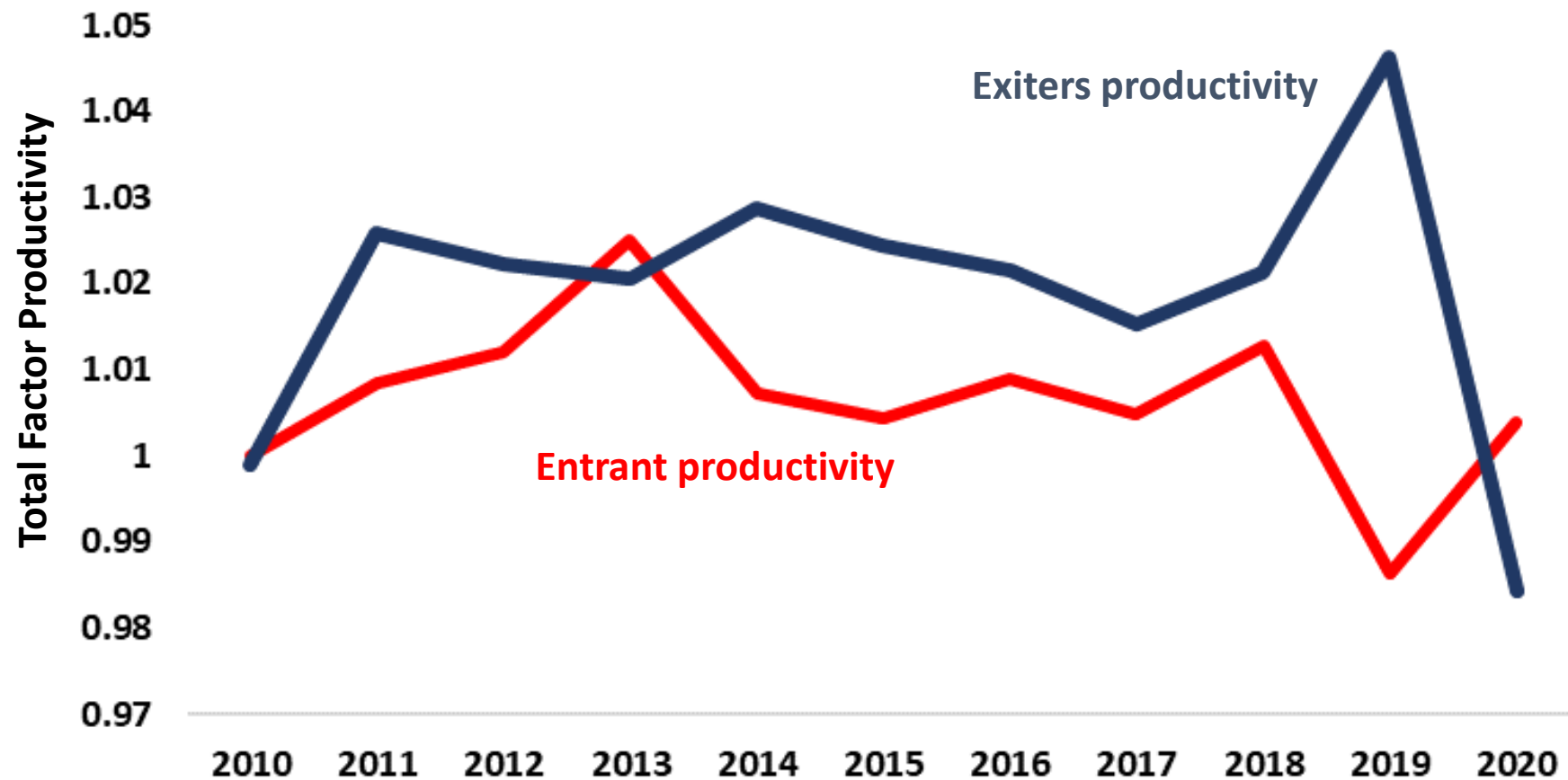


Choi and Shim (2023)

Schumpeterian Dynamics:

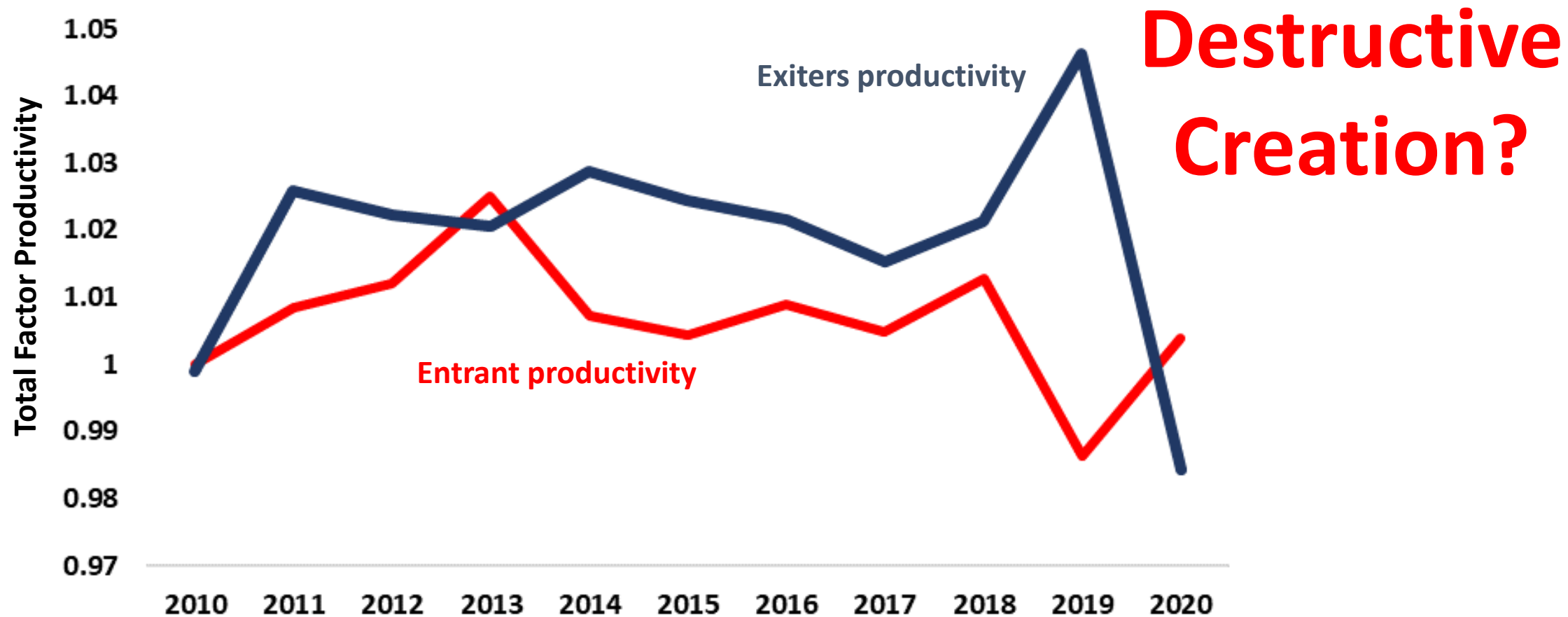
Some Country Case Studies

(Missing) Creative Destruction in Turkiye



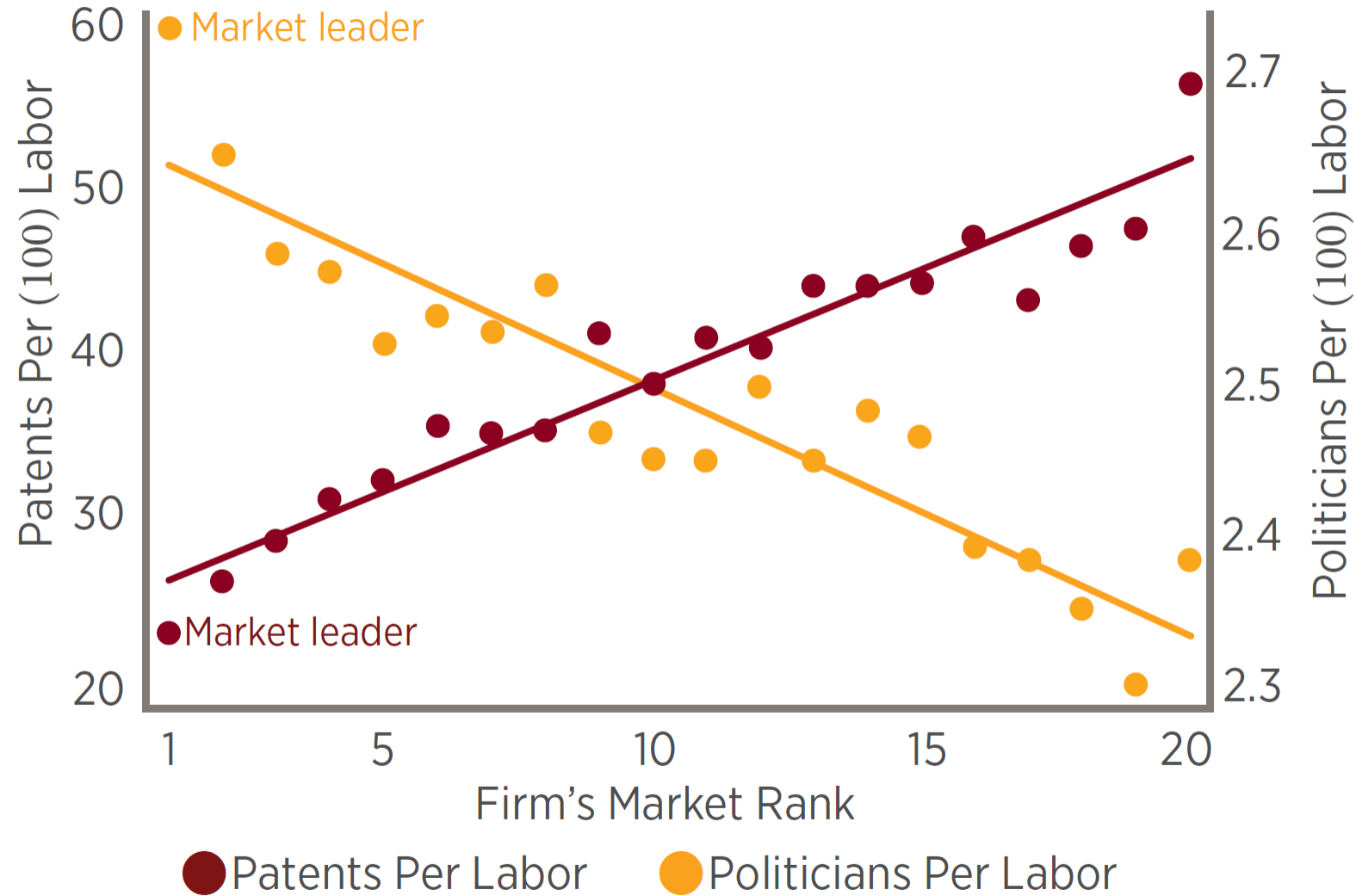
Source: Akcigit, Aktug, Ates, Cilasun (2023)

(Missing) Creative Destruction in Turkiye



Source: Akcigit, Aktug, Ates, Cilasun (2023)

(Missing) Creative Destruction in Italy

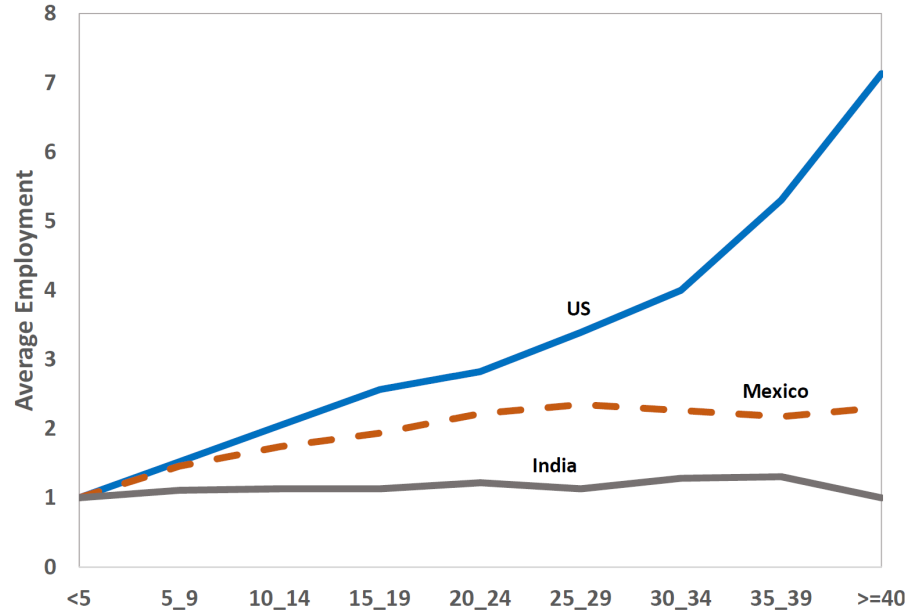


Market = 6-digit industry \times 20 Regions \times 1993-2014

Source: Akcigit, Baslandze, and Lotti (2023, Econometrica)

(Missing) Creative Destruction in India

FIGURE: AVERAGE EMPLOYMENT BY AGE



- ▶ While the average life-cycle is flat, some Indian firms manage to grow:

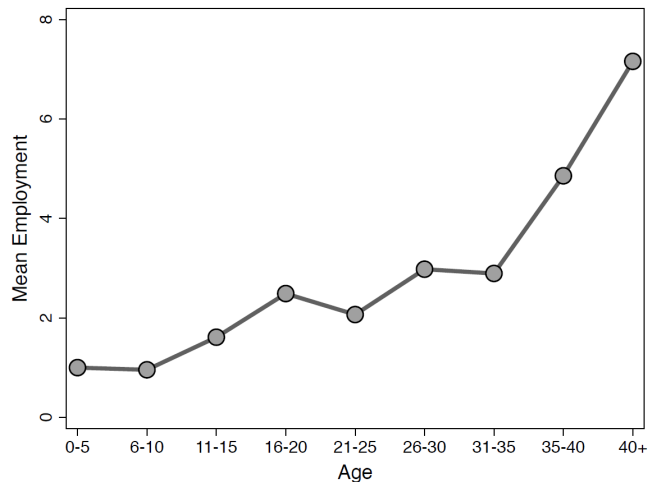
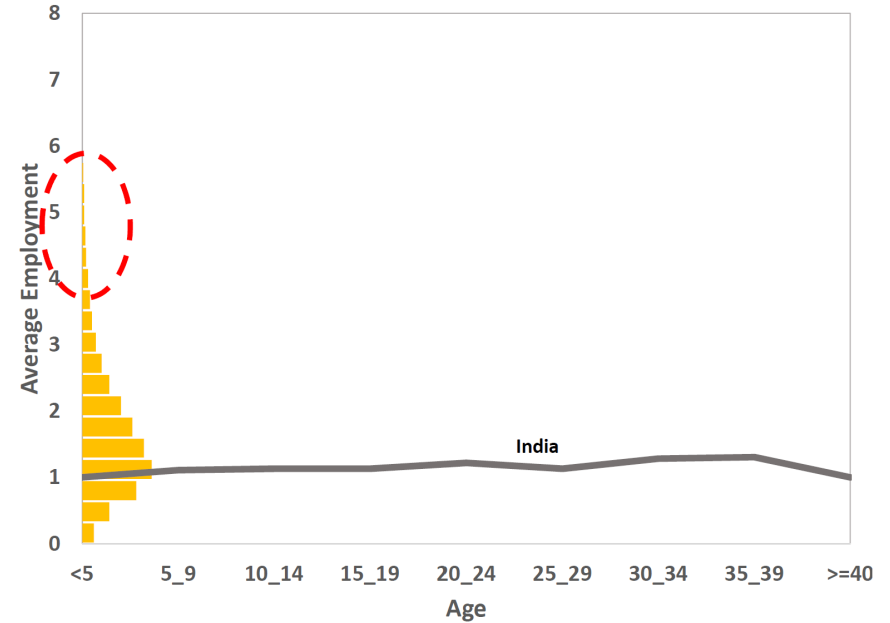
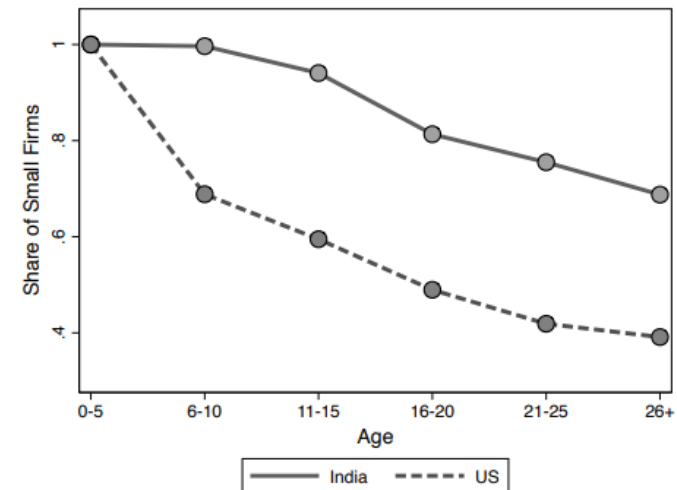


FIGURE: AVERAGE EMPLOYMENT BY AGE

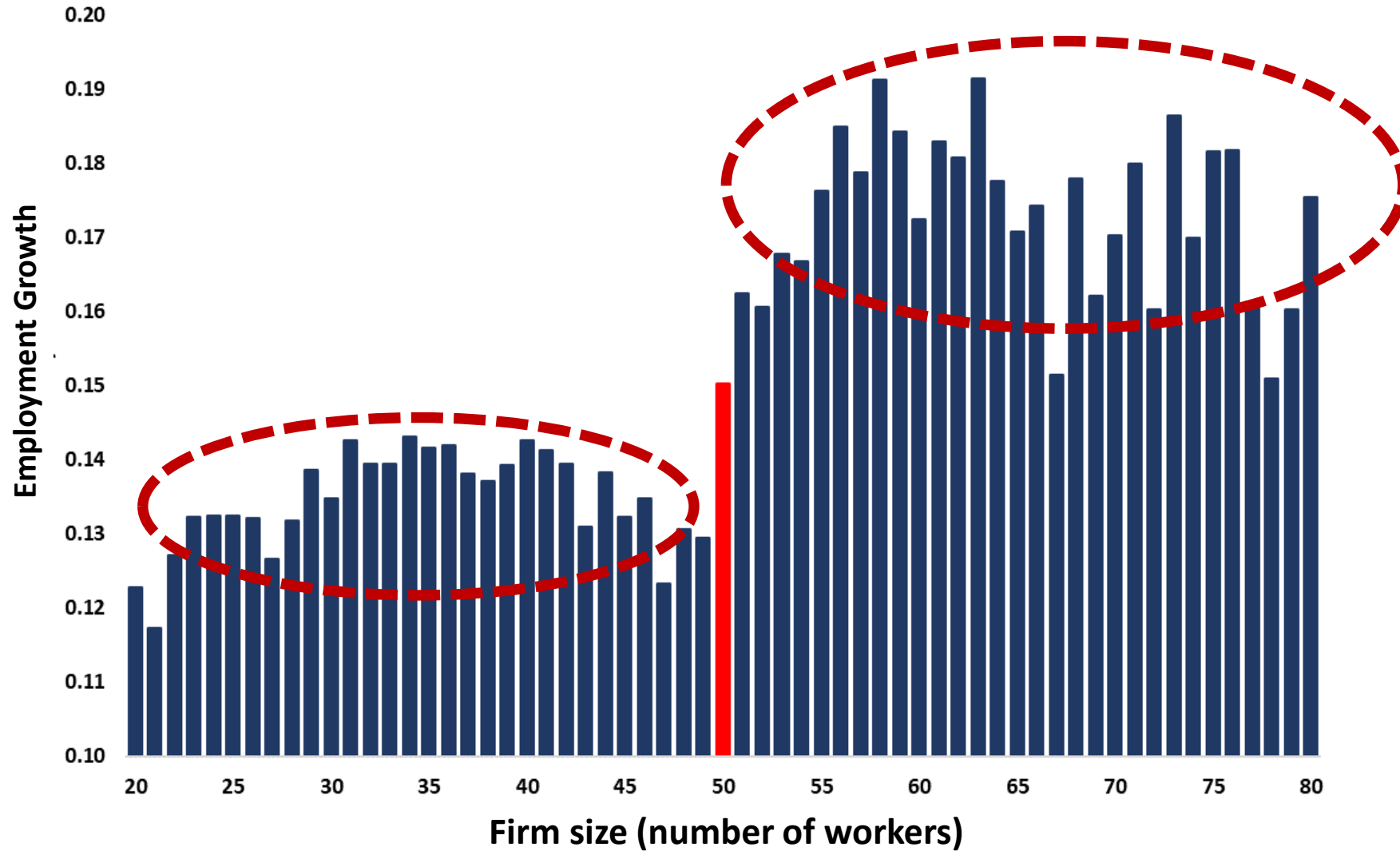


- ▶ ... but share of tiny producers stays stubbornly high

FIGURE: SHARE BY EMPLOYMENT

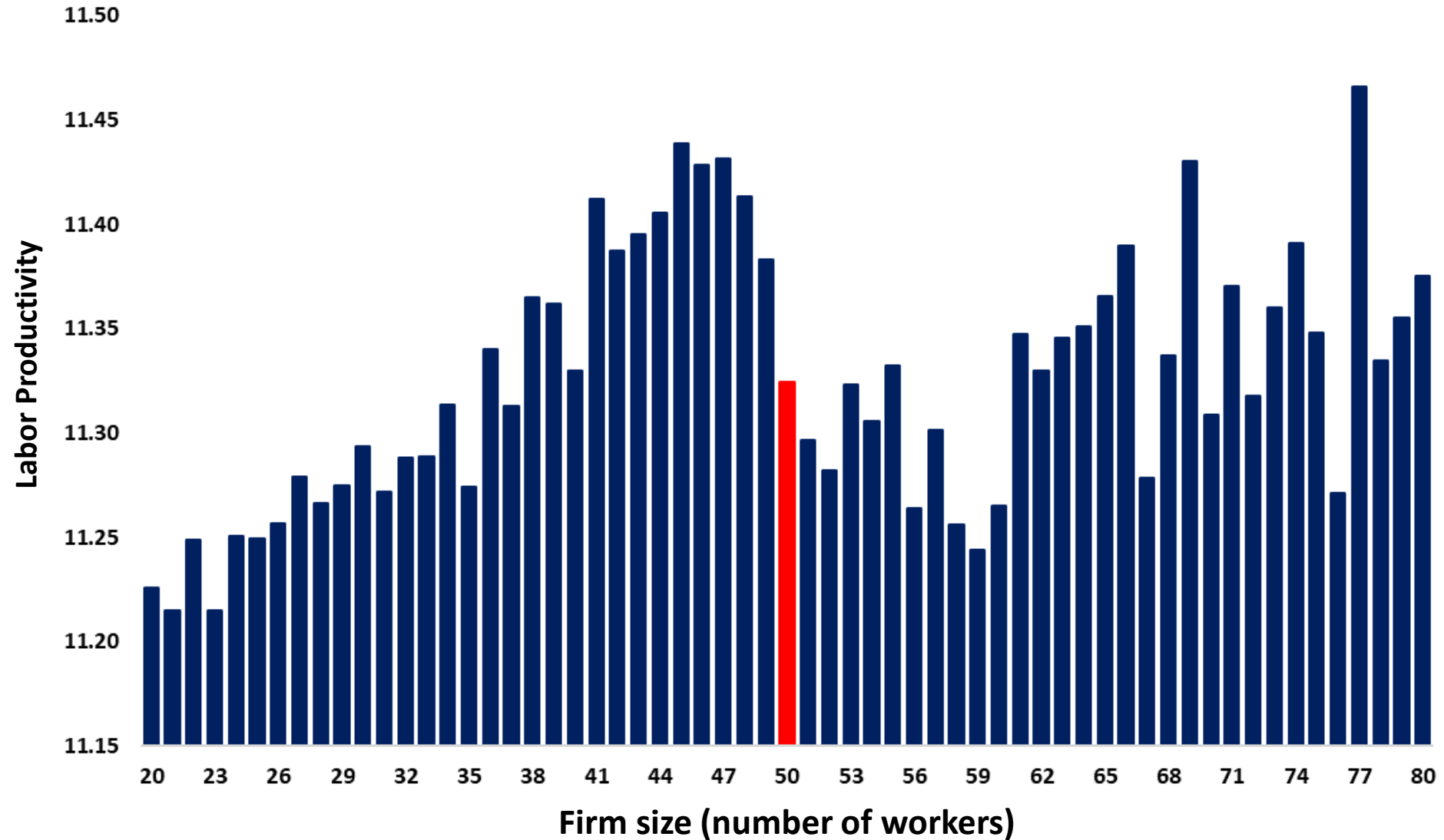


Employment Regulations and Firm Growth



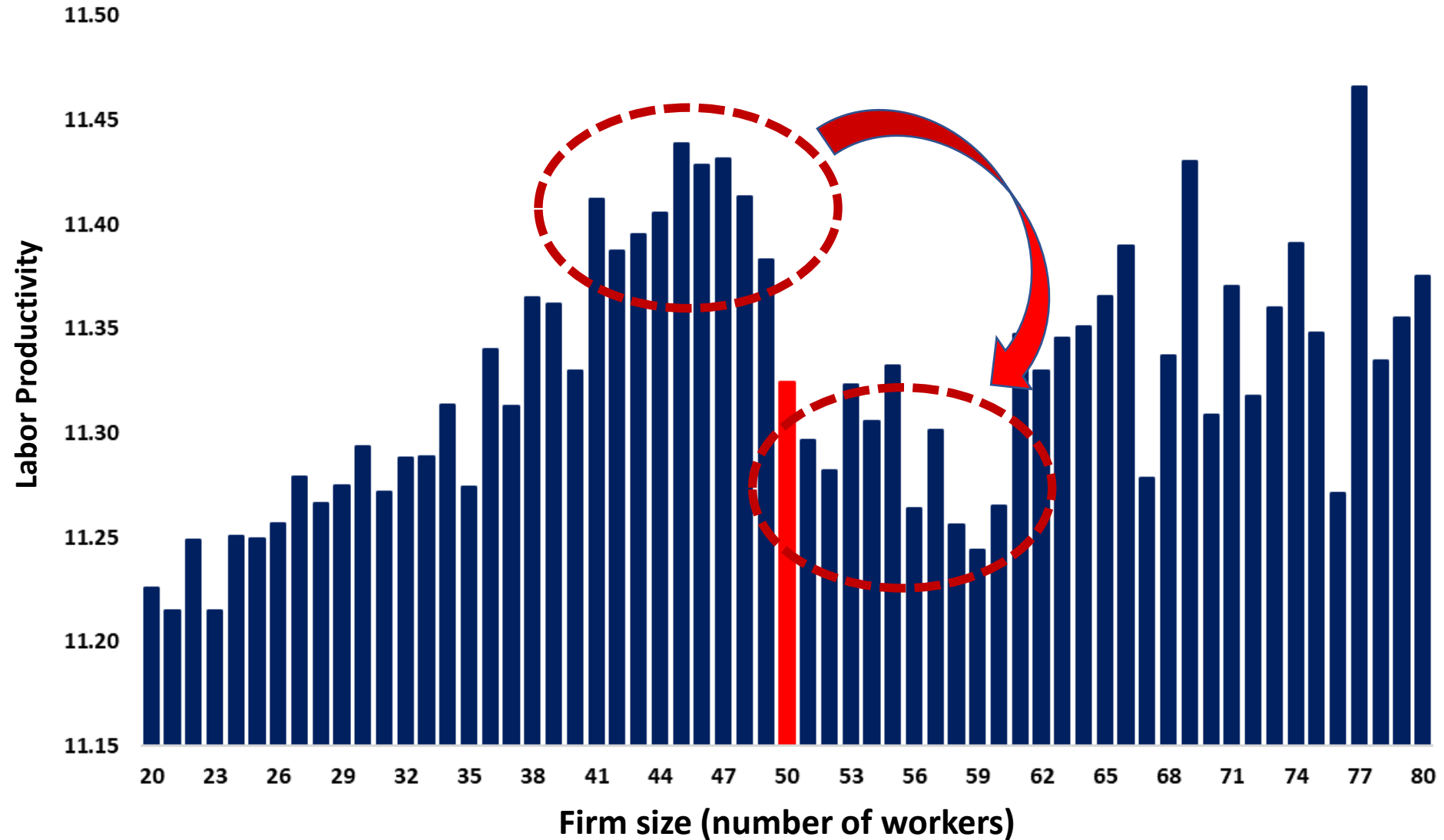
Source: Akcigit, Akgunduz, Alp, Cilasun, Quintero (2023)

Regulations and Worker Productivity



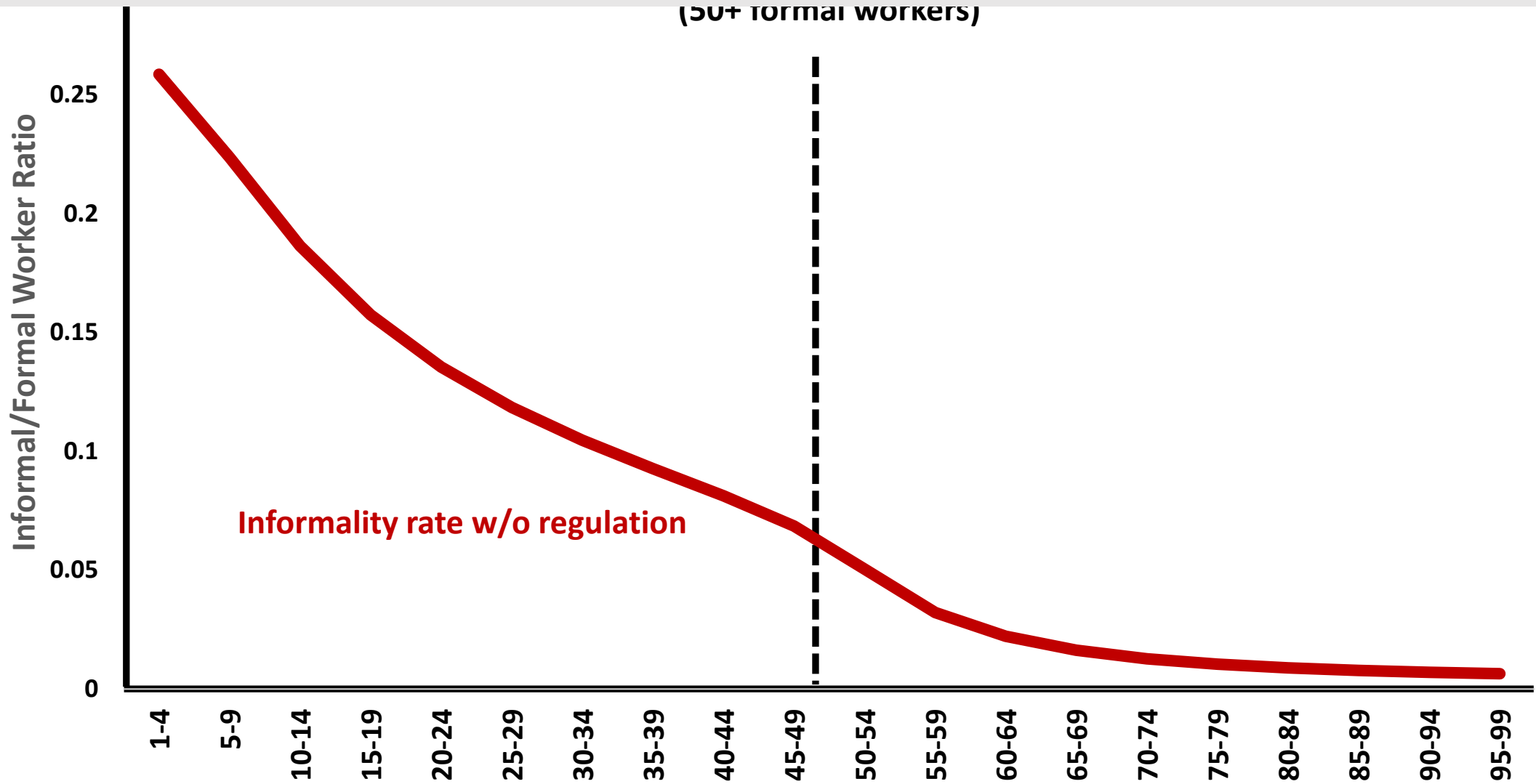
Source: Akcigit, Akgunduz, Alp, Cilasun, Quintero (2023)

Regulations and Worker Productivity



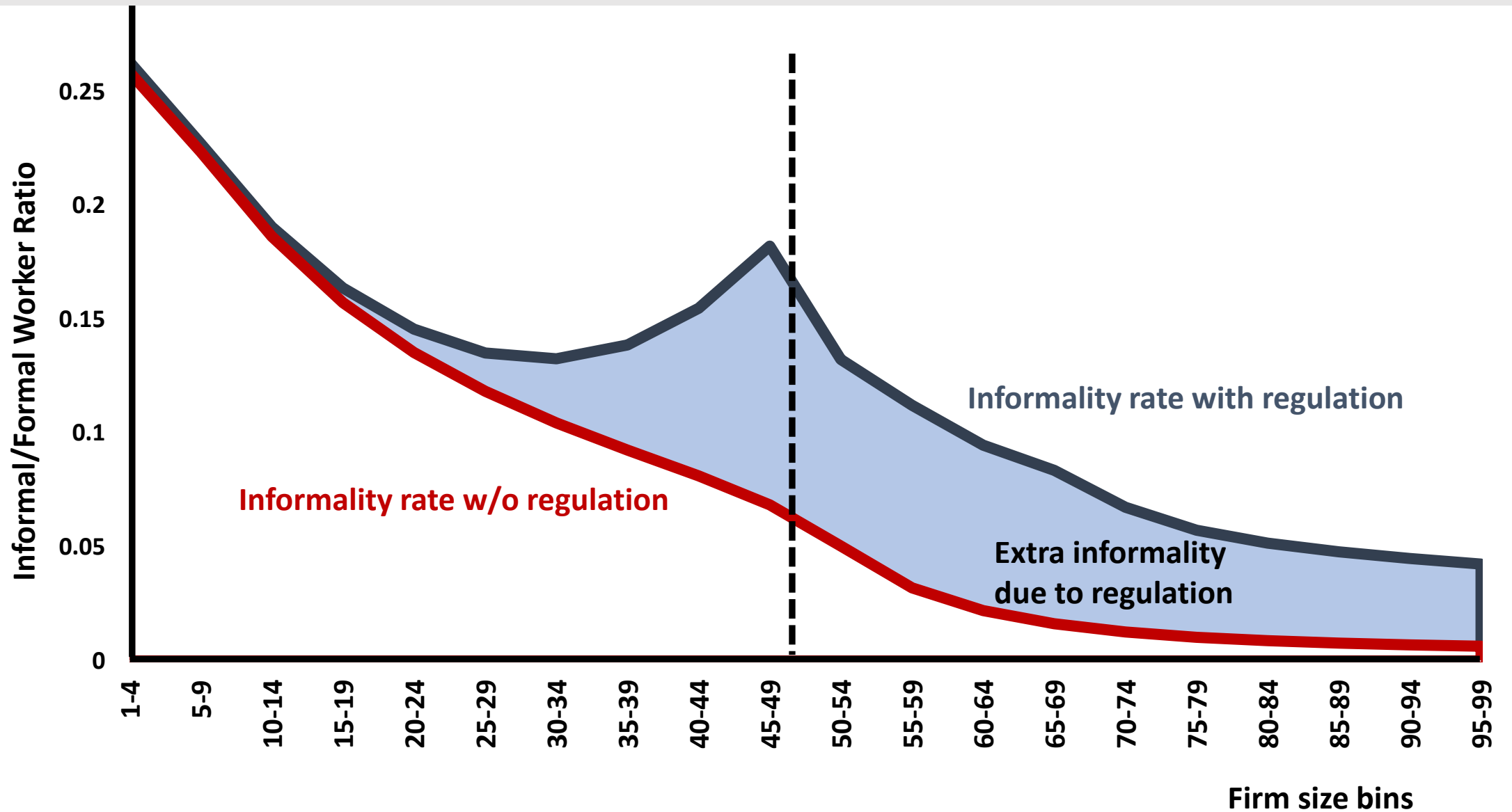
Source: Akcigit, Akgunduz, Alp, Cilasun, Quintero (2023)

Regulations Can Trigger Informality



Source: Akcigit, Akgunduz, Alp, Cilasun, Quintero (2023)

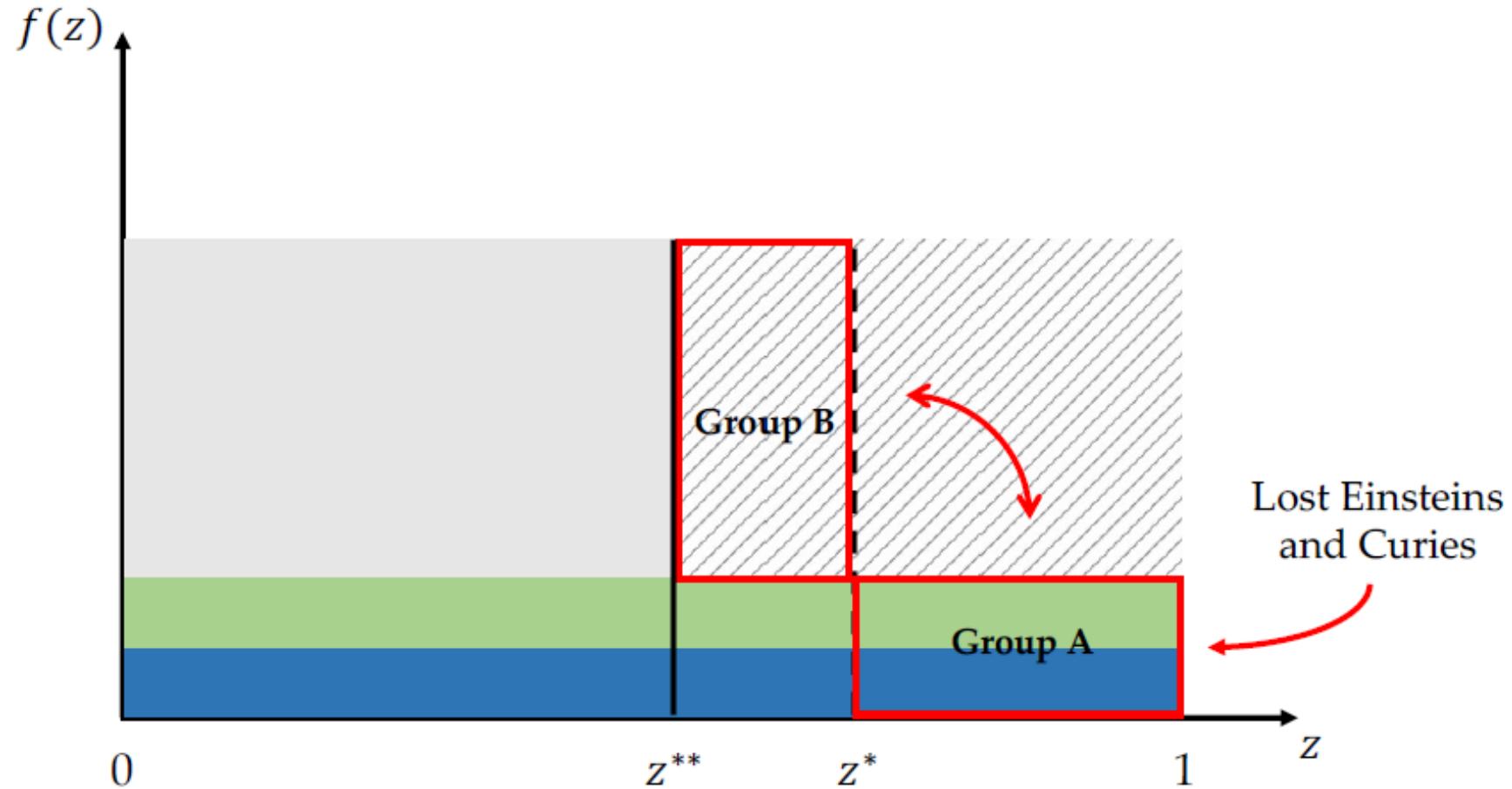
Regulations Can Trigger Informality



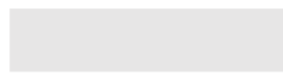
Source: Akcigit, Akgunduz, Alp, Cilasun, Quintero (2023)

Talent and Human Capital for Creative Destruction

How Do Societies Elevate Their Talents?



Production
workers:



Financial
frictions:



Researchers:

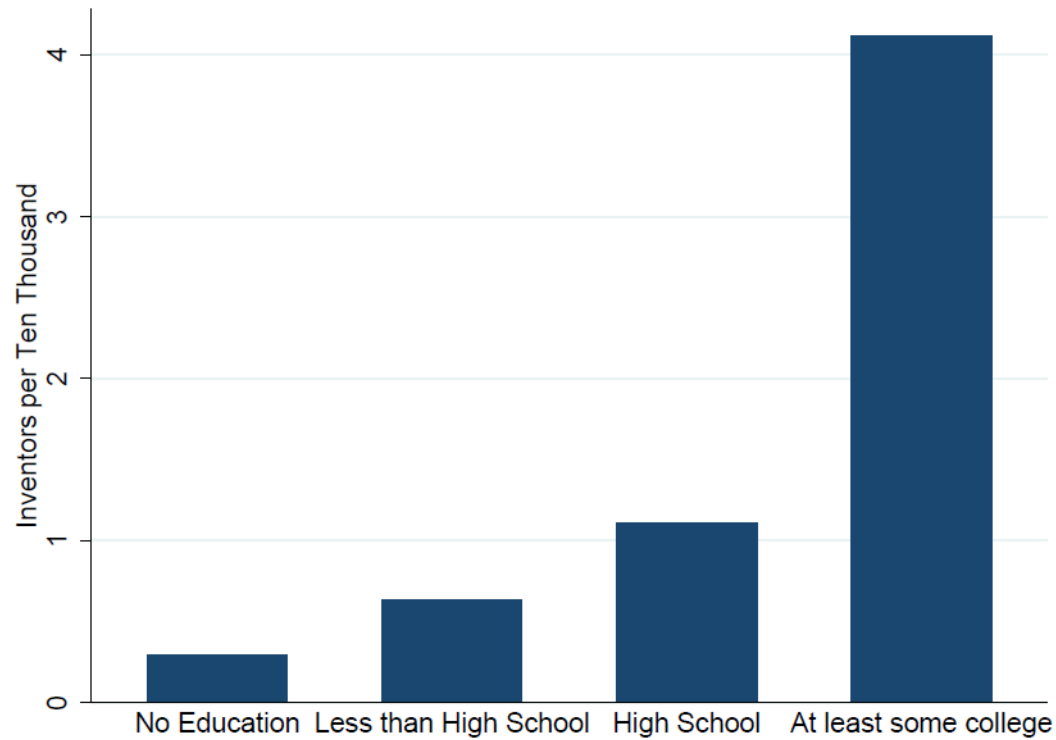


Discrimination:

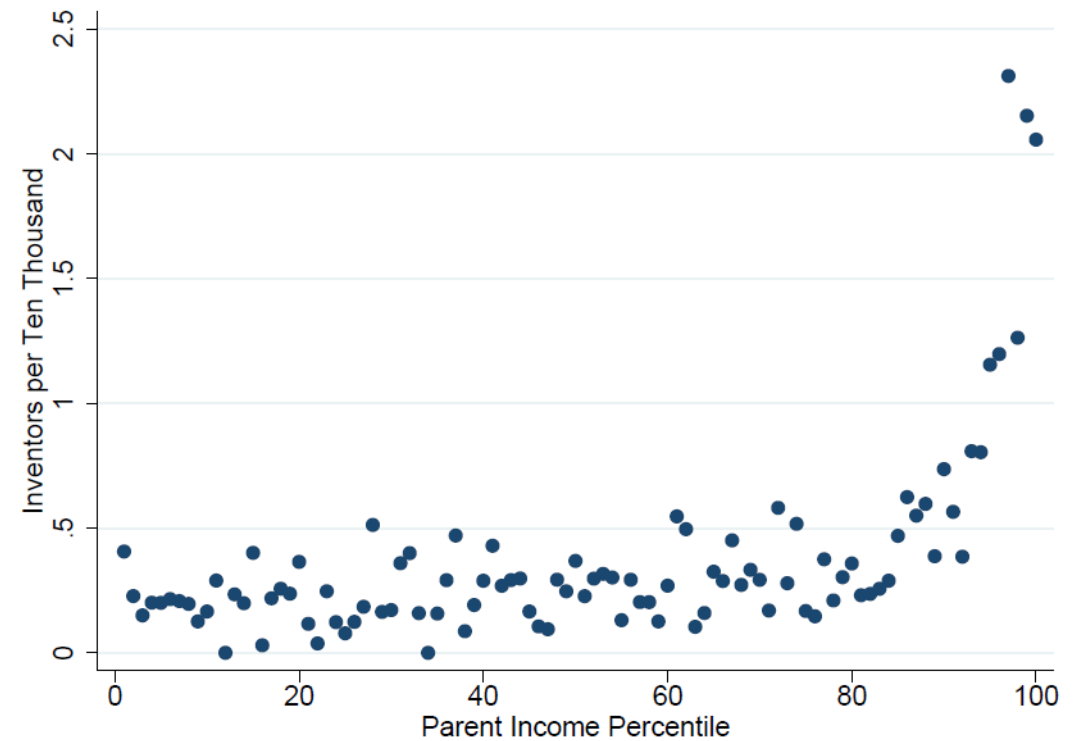


Probability of Becoming an Inventor

USA circa 1940s



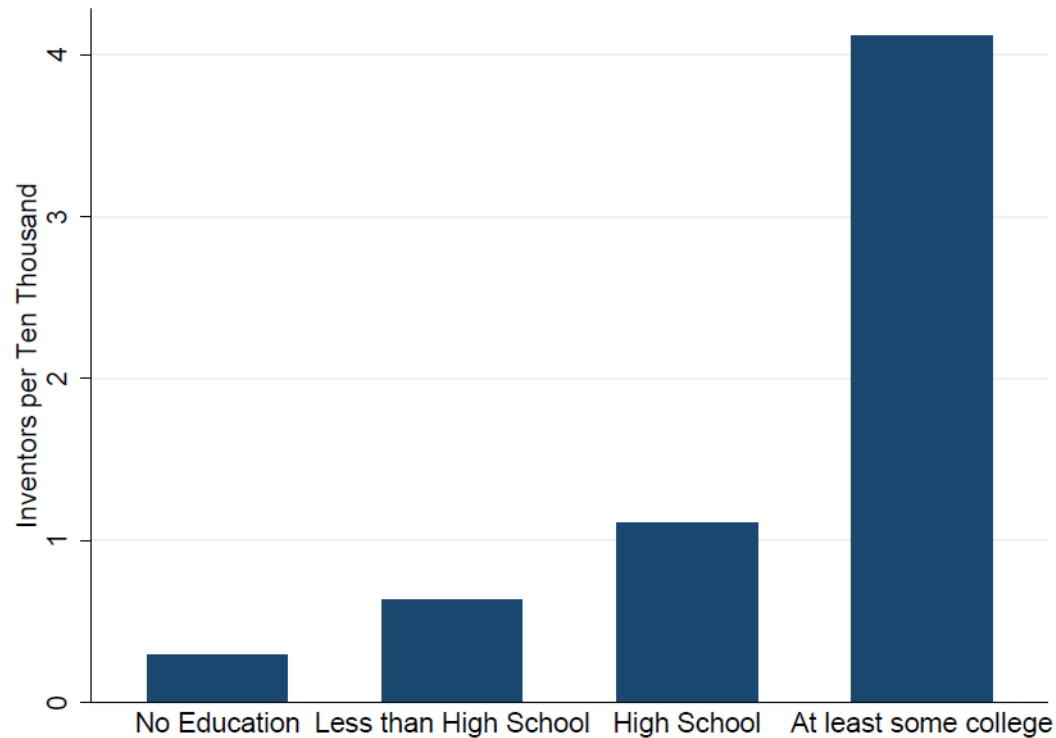
Parental Income



Source: Akcigit, Grigsby and Nicholas (2018)

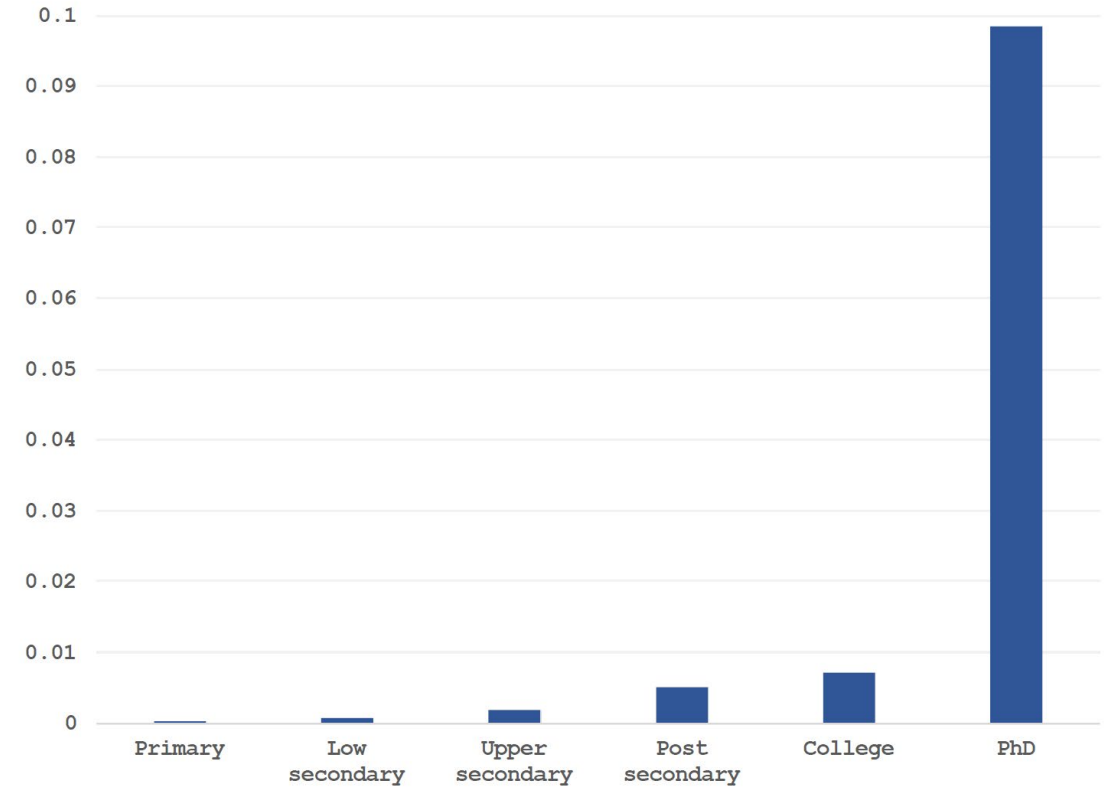
Probability of Becoming an Inventor

USA circa 1940s



Source: Akcigit, Grigsby, and Nicholas (2018)

Danmark 2020s

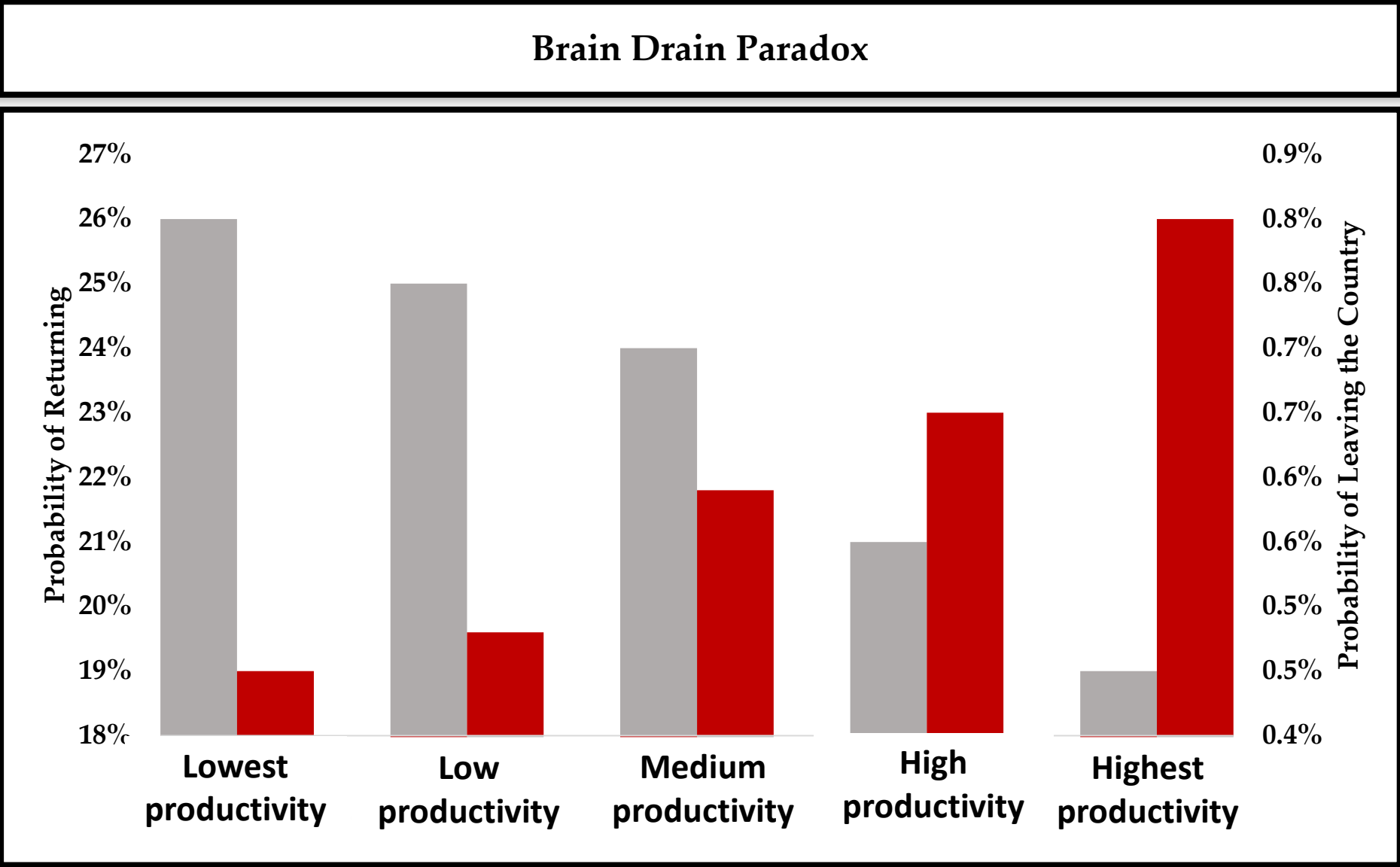


Source: Akcigit, Pearce, and Prato (2022)

Tapping into Global Talents

- China invests in US startups, especially in more basic fields.
- More than 80% of all Chinese students go back after studying abroad.
- Number of returnees exceeds one million students a year.

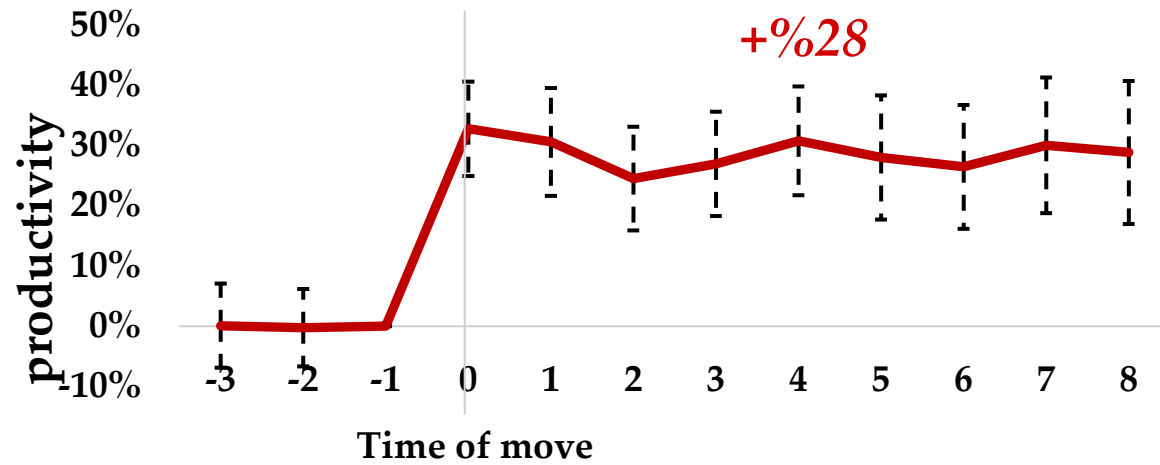
Scientist Productivity and Brain Drain in Turkiye



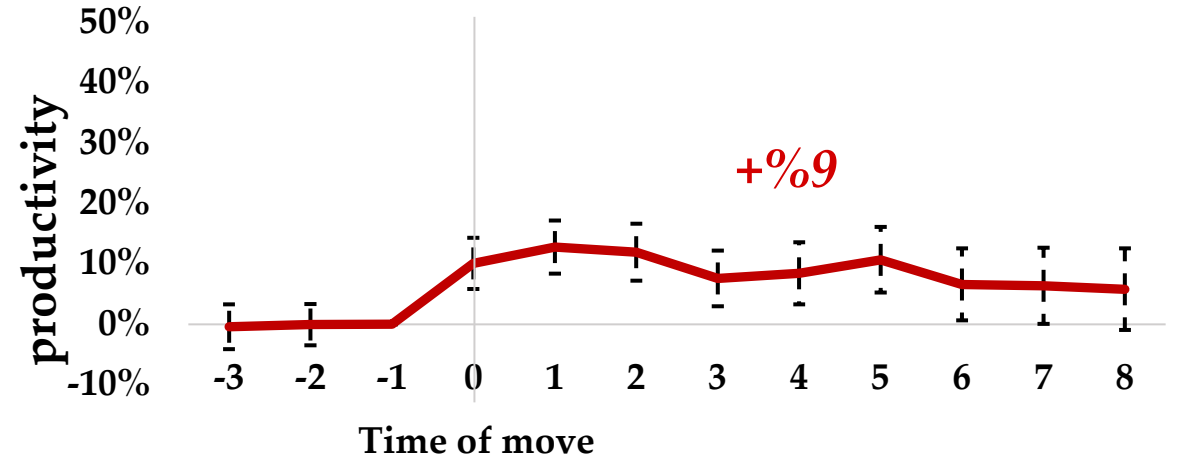
Source: Akcigit et al (2023).

Impact of Brain Drain on Collaborating Scientists

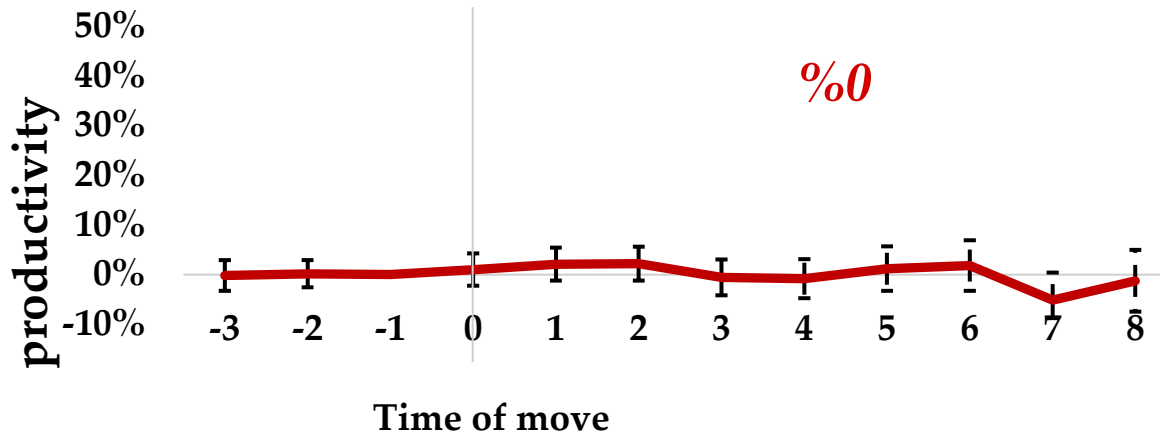
Productivity of the author who moves abroad



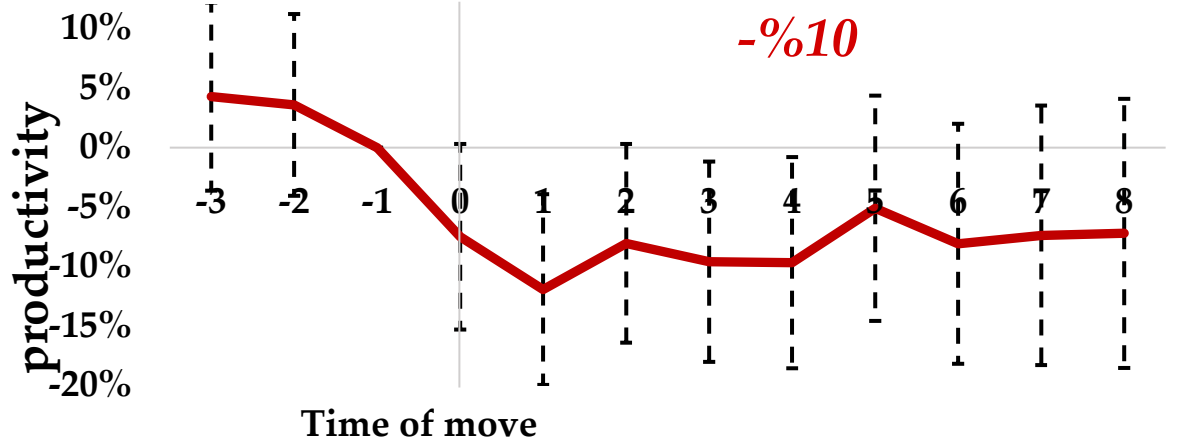
Productivity of staying coauthor if remain in touch



Productivity of staying coauthor if doesn't remain in touch



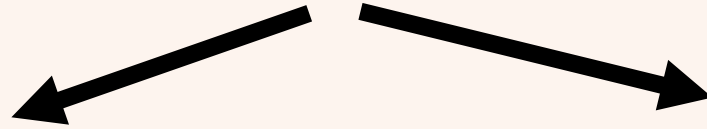
Productivity of the author who comes back



Energy and Technology Transition

Productivity Dynamics in **Schumpeterian** Models

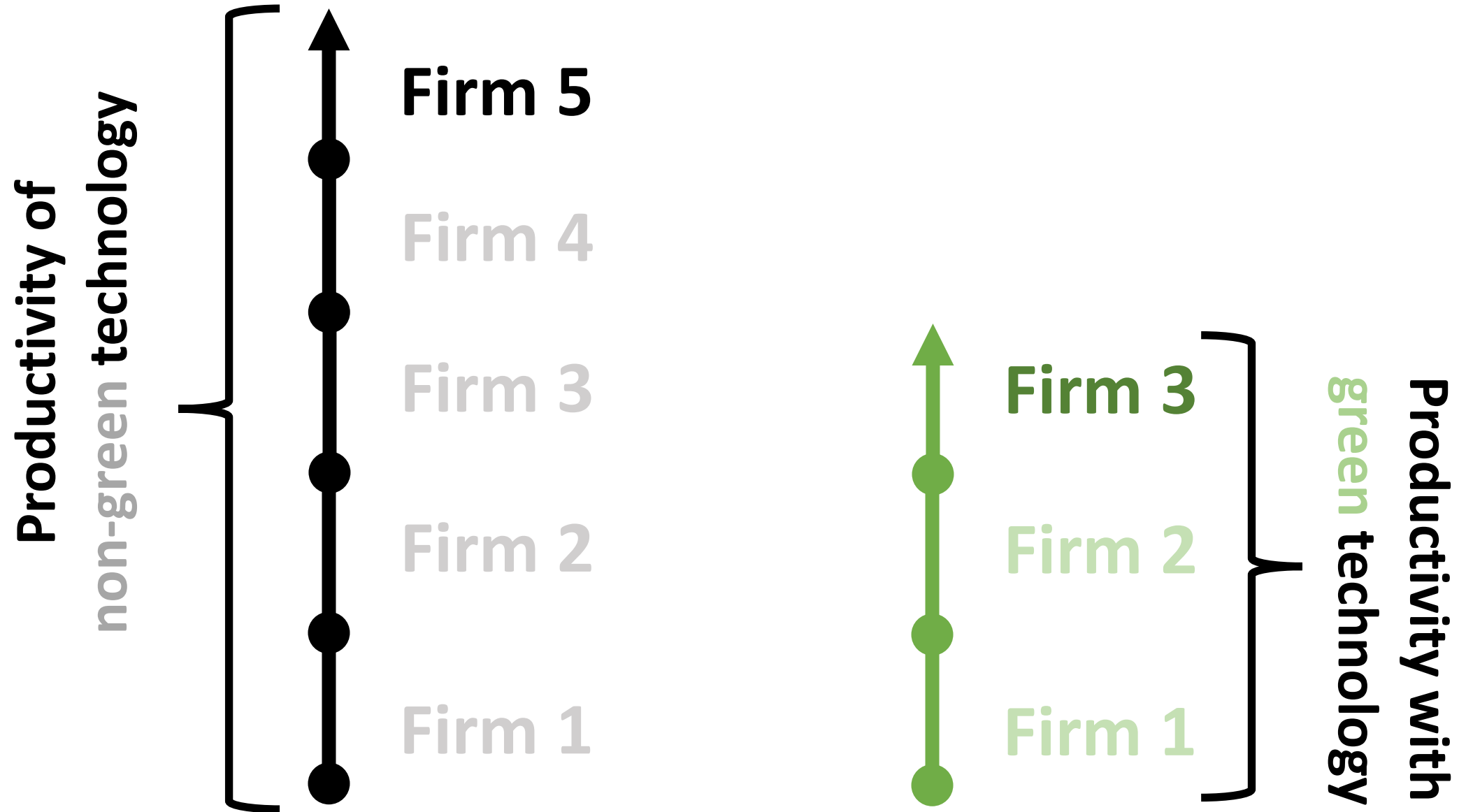
Production technologies can
be of two types



non-green

green

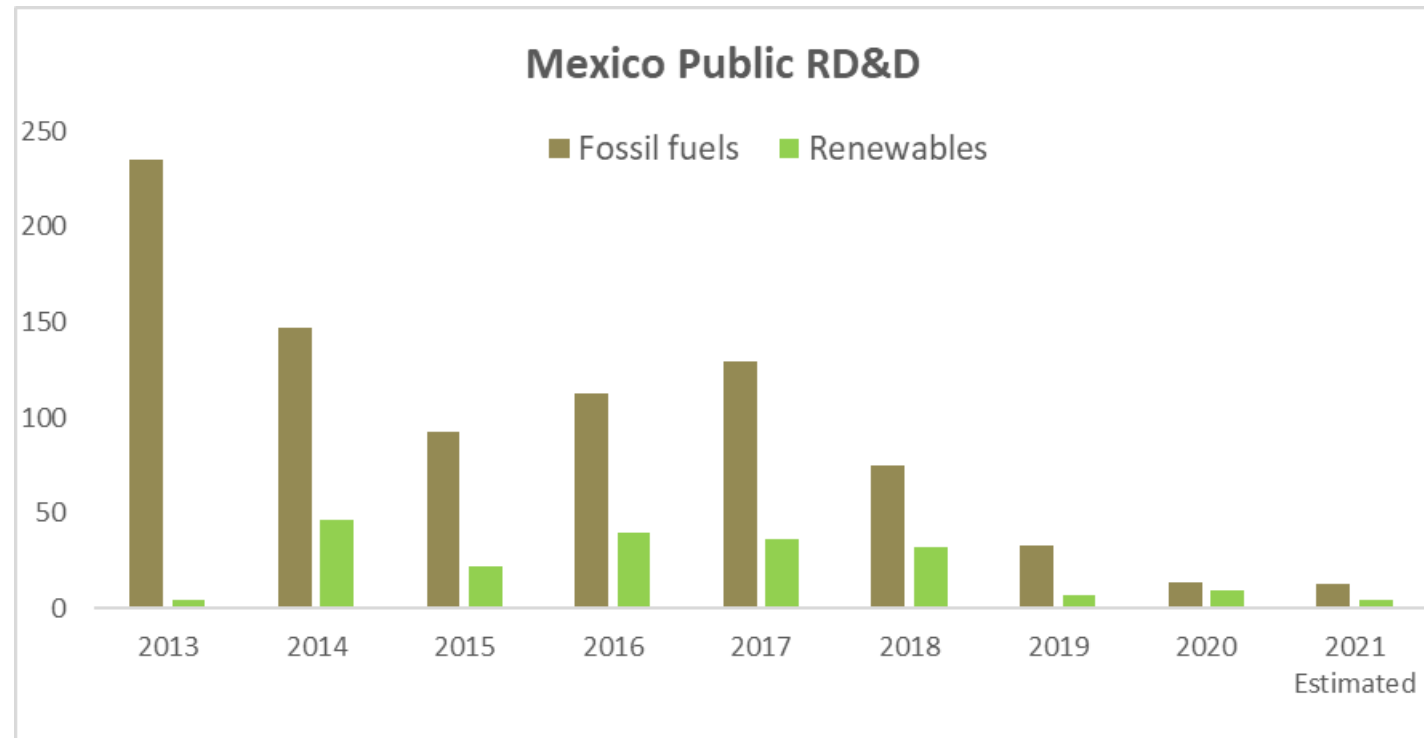
Productivity Dynamics in **Schumpeterian** Models



Productivity Dynamics in **Schumpeterian** Models

Green technologies are less advanced at the moment.

Subsidies to non-green technologies might hamper the transition.



WDR Team (2023)

Thank You!