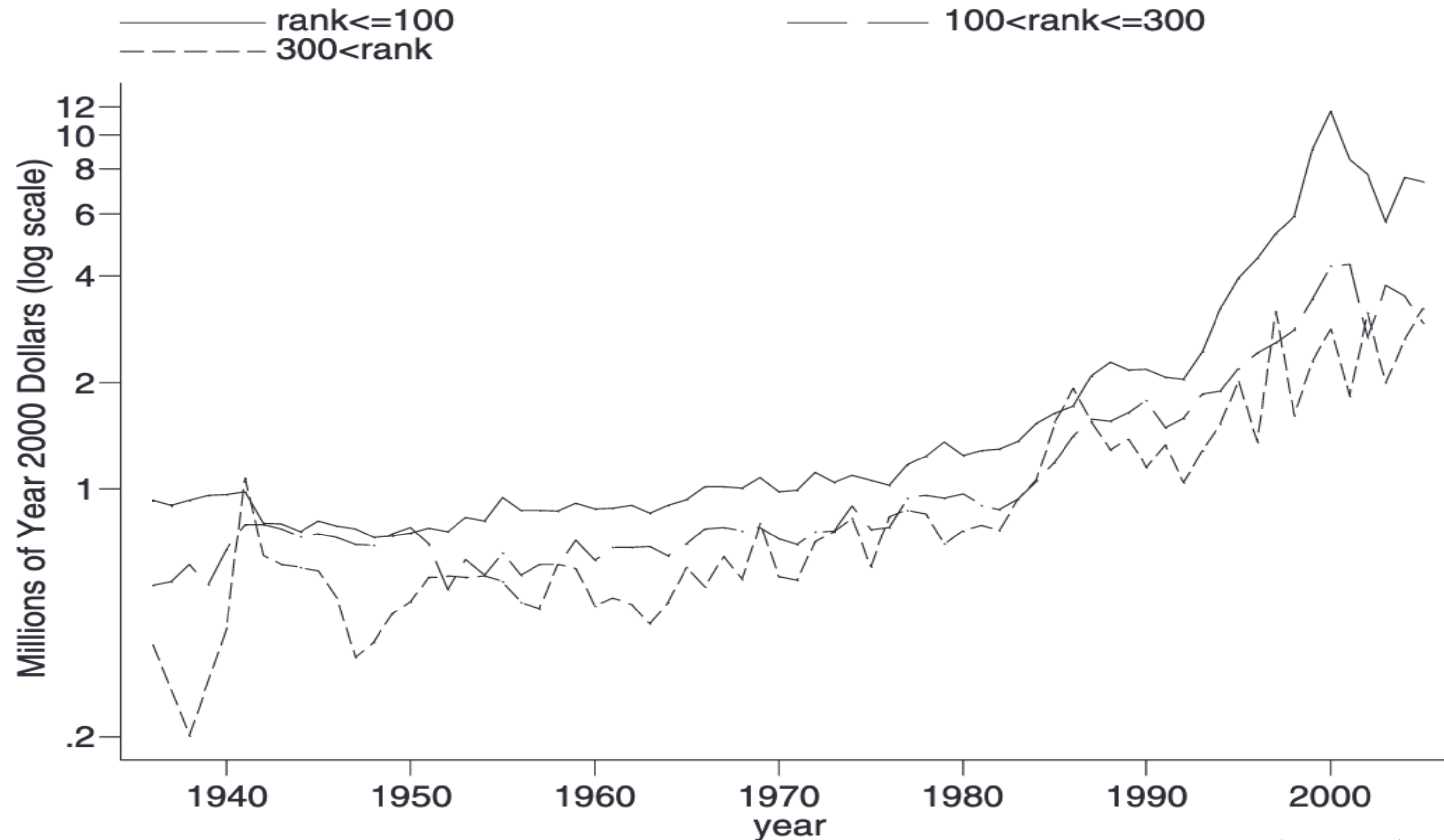
Nick Bloom and Xavier Gabaix: Management, CEO-pay, and inequality

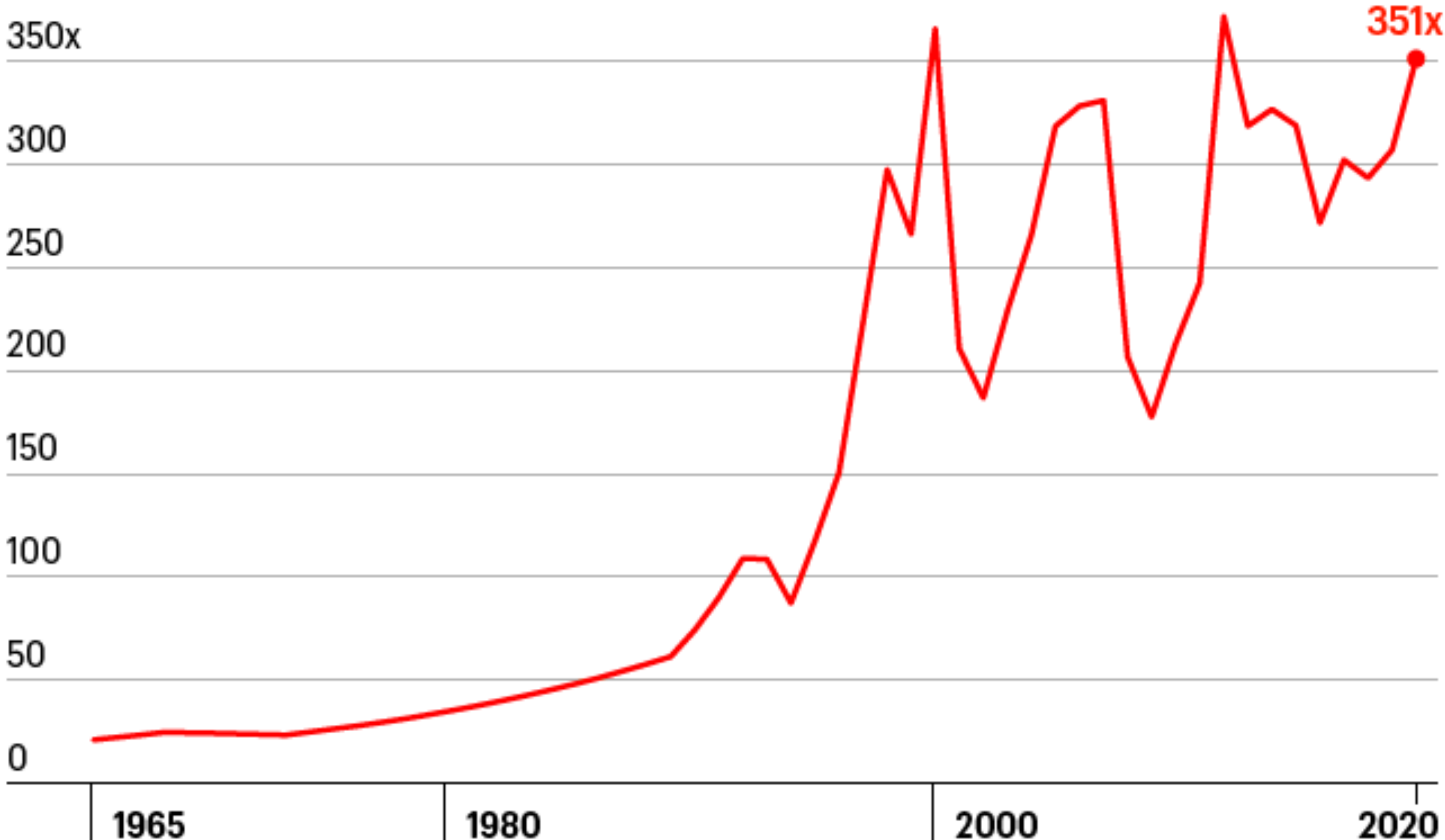
Commentator: Antoinette Schoar

Median total compensation by firm size



Frydman and Sachs (2010)

Total compensation: salary, bonus, long-term bonus payments, stock option grants. Based on the 3 highest-paid officers in the largest firms in 1940, 1960, and 1990. Rank≤100 (300<rank) is median total compensation across all executives in the sample of firms ranked among the top100 (below 300) by market value in the year. Rankings by market value based on all firms in CRSP


CEO-TO-WORKER COMPENSATION RATIO
CEO pay has skyrocketed over the past half-century—far outstripping worker salaries.
351x
350x
300
250
200
150
100
50
0
1965
1980
2000
2020
NOTE: REALIZED CEO COMPENSATION
SOURCE: ECONOMIC POLICY INSTITUTE

CEO and Management: Role in Inequality

- Agency Problem: CEO compensation and incentives

- Compensation as solution to the agency problem
  - How high powered should it be? What is the right benchmark, Jensen and Murphy (1990), Murphy (1995)
  - Should depend on risk aversion, effort cost, ability to pay upfront, Hall and Liebman (1998)
  - CEO incentives across firms correlated with the variance in stock returns, proxy for the noise in the outcome measure, Garen (1994) and Haubrich (1994)
  - Becker (2006): Wealthier CEOs have more performance sensitive pay

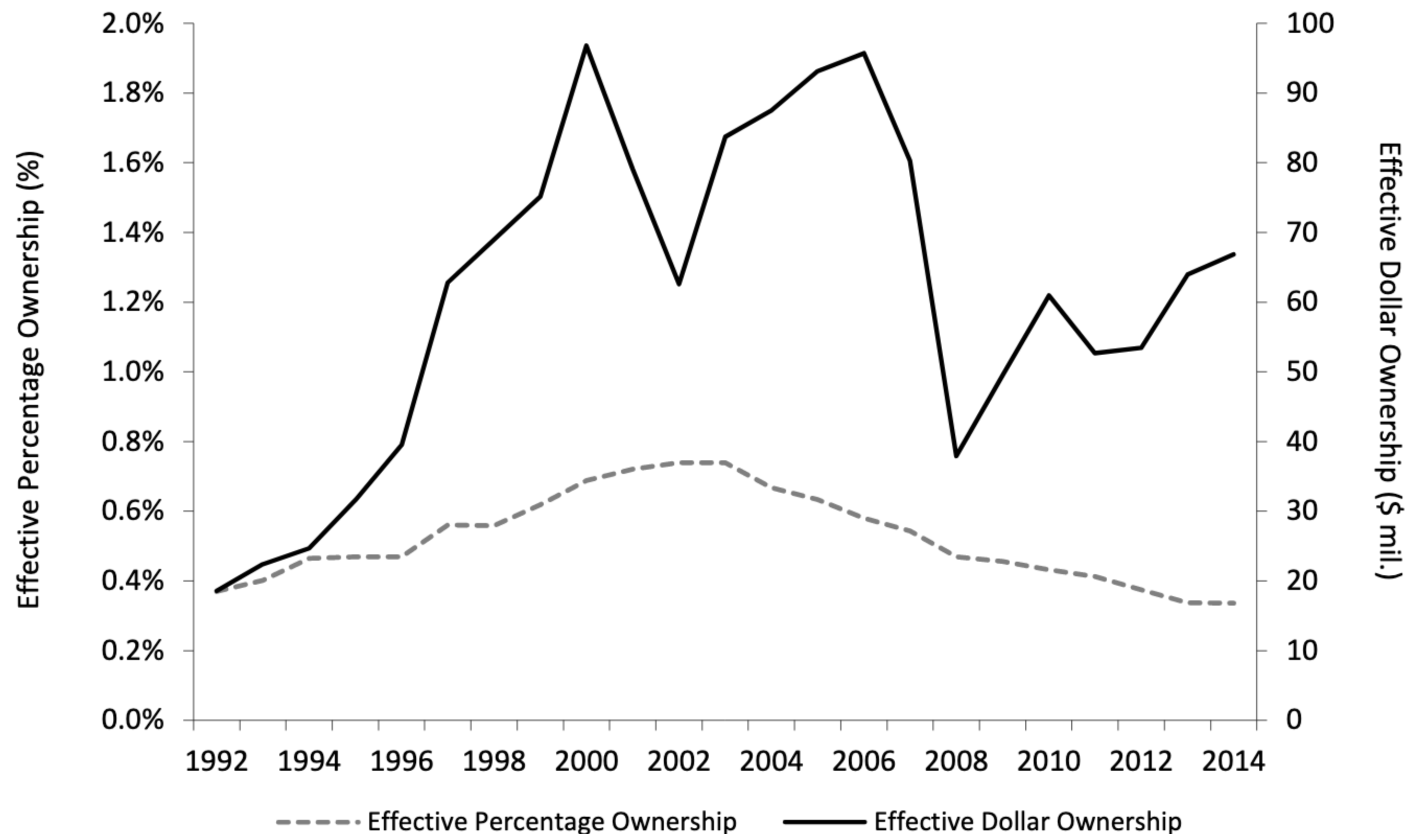
Is Compensation Part of the Problem?

- Rent extraction view:
  - Pay structure itself is a product of the agency problem.
  - Options are a way for the CEO to manipulate own compensation

- Involvement of CEOs in setting their own pay
  - Yermack (1997): CEOs can influence the timing of their pay, tend to be awarded before good news and after bad
  - Heron and Lie (2003): Backdating of stock options

- Compensation varies with lucky shocks
  - Bebchuck et al (2000), Bertrand and Mullainathan (2000), Garvey and Milbourne (2006)

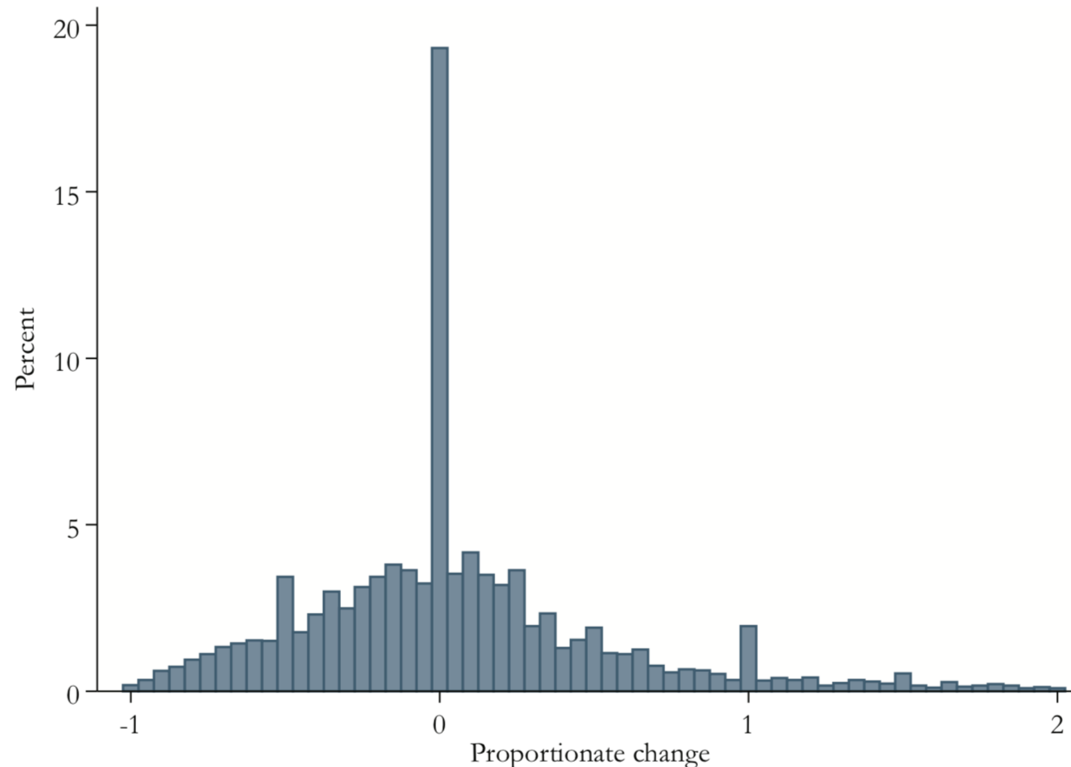
Incentives: Percentage Ownership versus Dollar Ownership



- Divergence due to growth in firm size: CEOs own smaller % and larger $ stakes
- Firm growth leads to lower fractional ownership incentives but higher equity-at-stake incentives

Shue and Townsend (2017)

- Show high degree of *number rigidity* in options granted
  - Firms often grant executives the same number of options as in prior year.
  - Same number of new at-the-money options as in previous year means an X% increase in the stock price leads to an X% higher grant-date value of the option under Black-Scholes



Distribution of proportional change in the number of options granted in the current year relative to prior year. Sample is limited to CEOs who receive options in the current and previous year at firms that were ever in the S&P 500 from 1992 to 2010.

Disclosure changes number rigidity

	Number-rigid	
	(1)	(2)
Post-reforms	−0.00531	−0.00103
	(0.0112)	(0.0173)
Options	0.0937***	0.0841***
	(0.00862)	(0.00972)
Post-reforms × options	−0.0387***	−0.0302**
	(0.0143)	(0.0146)
Time trend	No	Yes
Controls	No	Yes
Firm FE	No	Yes
R^2	0.0158	0.0139
Observations	10,004	9,754

- Observations at the executive by year by grant type level, grant types are option or stock grants. The sample is restricted to S&P 500 CEOs who received the relevant grant type in the current year and in the previous year. The dependent variable is a number-rigid indicator variable equal to one if the stock or option grant is number-rigid.
- *Post-Reforms:* indicator equal to one if the award is granted following the two reforms (after December 15, 2006). *Options* is an indicator variable equal to one if the grant is an option grant and zero if the grant is a stock grant.

Allocation of Talent

- Competition for scarce managerial talent may lead to higher compensation in larger firms: Lucas (1978), Rosen (1981) Tervio (2008)

- Increases in the size of the typical firm should increase pay in aggregate: Gabaix and Landier (2008)

- Skilled-biased technical change: Altered the nature of the job of top managers, Garicano and Rossi-Hansberg (2006)

CEO and management: Assignment Model

- What determines: $\mathbf{A k^{\alpha} l^{(1-\alpha)}}$
- Do CEOs matter?
  - Bertrand and Schoar (2003): managerial fixed effects on investment decisions, financial decisions, Schoar and Zou (2014, 2019), Eisfeld and Kuhnen (2020)
  - Perez-Gonzalez (2005) or Bennedsen et al (2006, 2019): Family ties and CEO's family situation matter
  - Kaplan et al (2007): Observed managerial styles important in selection of CEOs for Private Equity

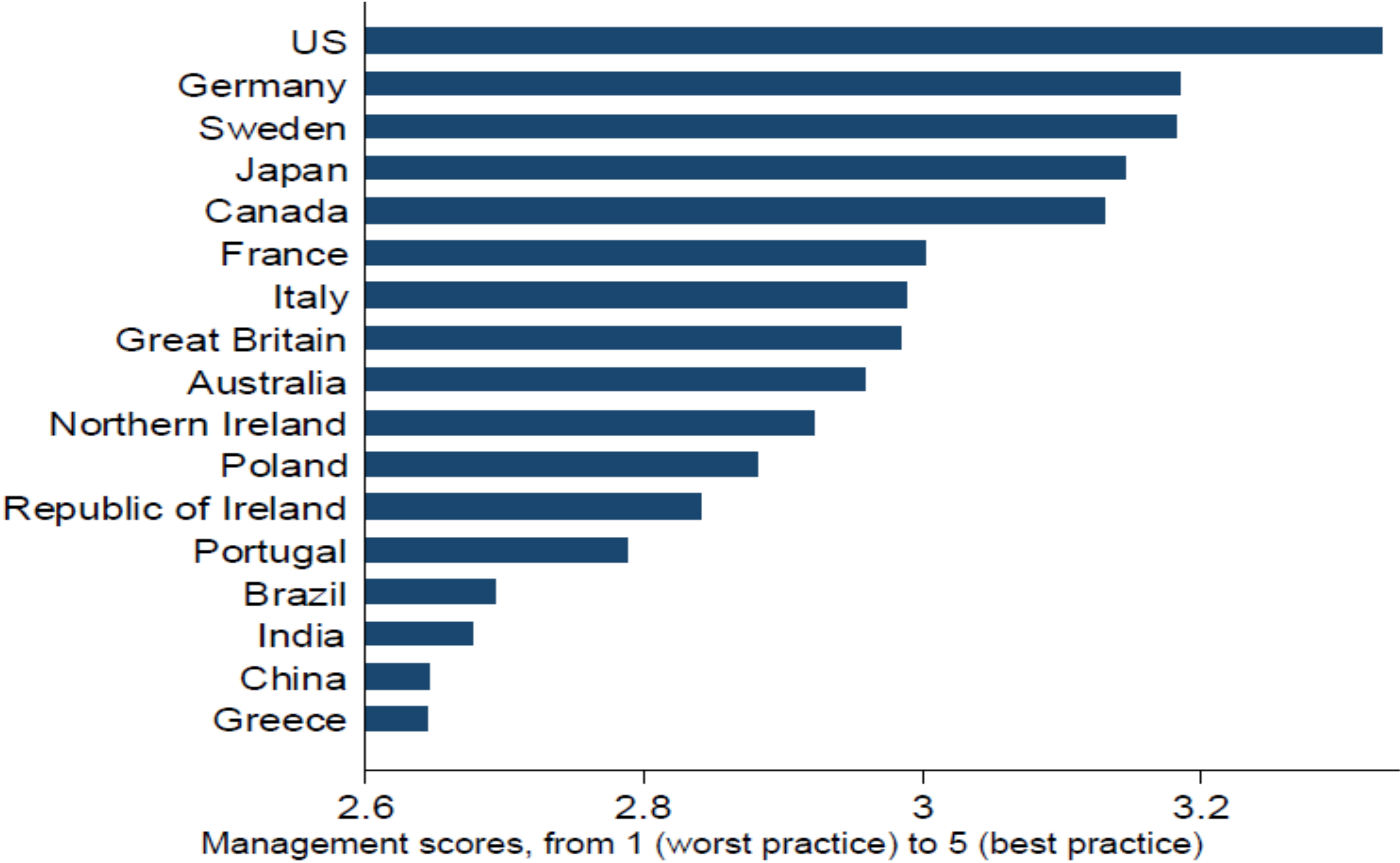
CEO and management: Assignment Model

$$\mathbf{A}k^{\alpha}\, l^{(1-\alpha)}$$

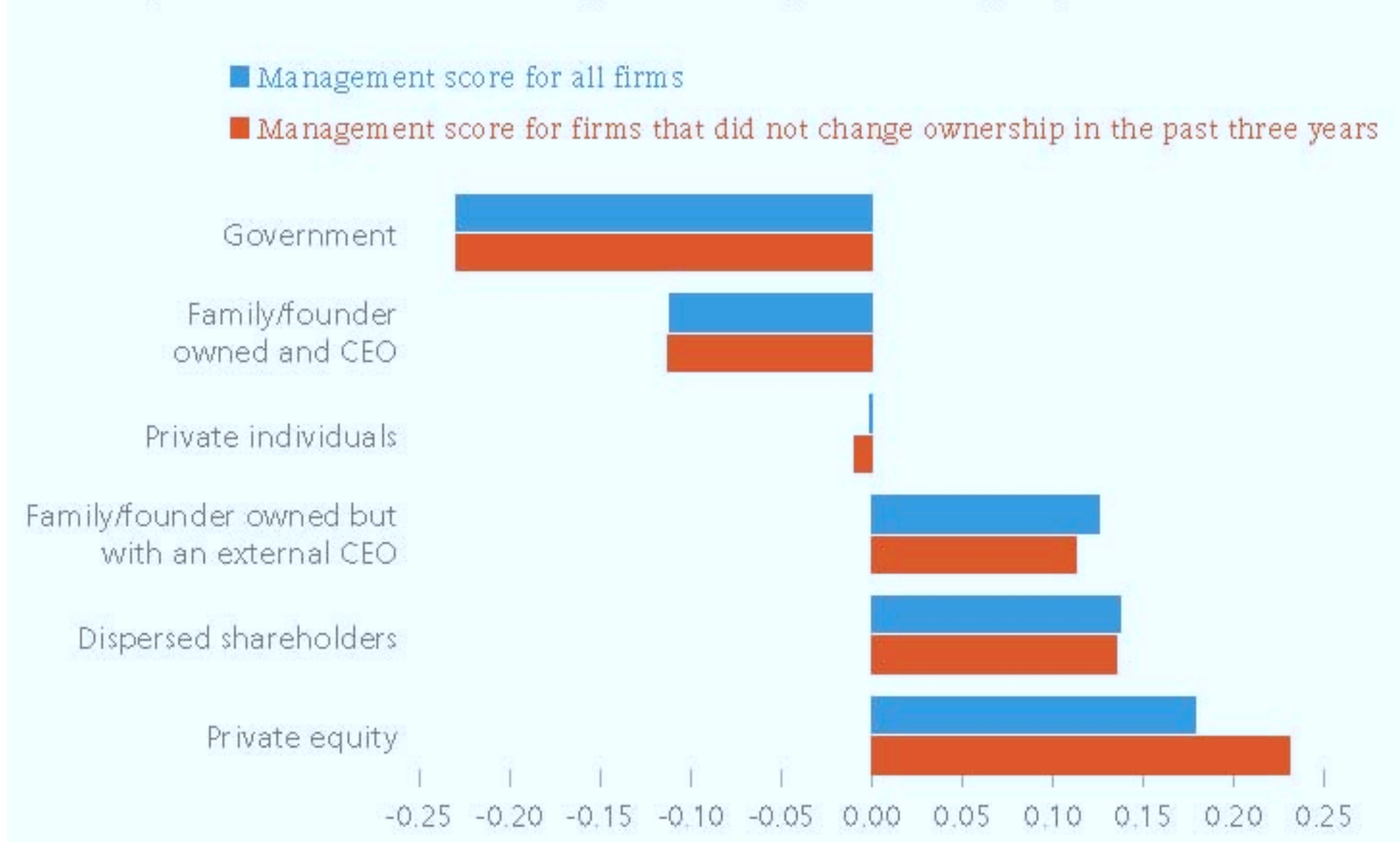
- Is managerial capital a stock or flow?
  - Managerial skill improvement via consulting
    - Bloom et al (2013), Bruhn et al (2019)
    - Bloom et al (2007, 2010, etc.): managerial practices as manifestation of past managerial investments
    - McKenzie and Woodruff (2014)

  - Who appropriates the stock?
    - Bloom et al (2020): persistent effects, but lower when CEO leaves
    - Schoar and Zhou (2019), Malmendier et al (2011): stock shapes new management

Average firm management scores are lower in developing countries (Bloom, Genakos, Sadun and Van Reenen 2009)



Difference across Ownership Types



Constraints to optimal allocation

- Governance
  - Family firms and concentrated ownership, Leuven et al (2001), La Porta et al (2000)
  - Even within a given country family firms have lower performance than professionally managed firms, e.g. Bennedson et al (2006) or Bertrand et al (2007)
  - Bloom et al (2012): family firms are less likely to adopt managerial best practices
  - Bandiera, Pratt and Sadun (2011): CEOs of family firms work less, and spend more time in meetings outside the firm

- Self selection into professional positions
  - De Mel et al (2008), Atkin et al (2022)

Thank you