poid Programme on Innovation and Diffusion

30 YEARS Centre for Economic Performance

Going for Growth : The COVID Recovery and Beyond

OECD, April 29th 2021

John Van Reenen

LSE and MIT

The Argument

- OECD countries face unprecedented **growth challenge** due to Pandemic. COVID has revealed existing weaknesses in politics and economy
- But even going into the Pandemic Crisis, there was global problem of **low productivity growth**
- Policy framework should be unashamedly around equitable and environmentally **sustainable growth**.

The Argument

- OECD countries face unprecedented **growth challenge** due to Pandemic. COVID has revealed existing weaknesses in politics and economy
- But even going into the Pandemic Crisis, there was global problem of **low productivity growth**
- Policy framework should be unashamedly around equitable and environmentally **sustainable growth**
- **Innovation and Diffusion** of better *technologies* and *management practices* are key
- We know much over what to do, join up in a new **Marshall** Plan
  - Short-run: Balance between **protection** and **reallocation**
  - Long Run: Frame around Climate, Health & Defense Missions
- **Vaccines** give an opportunity: need policy urgency

OUTLINE OF TALK

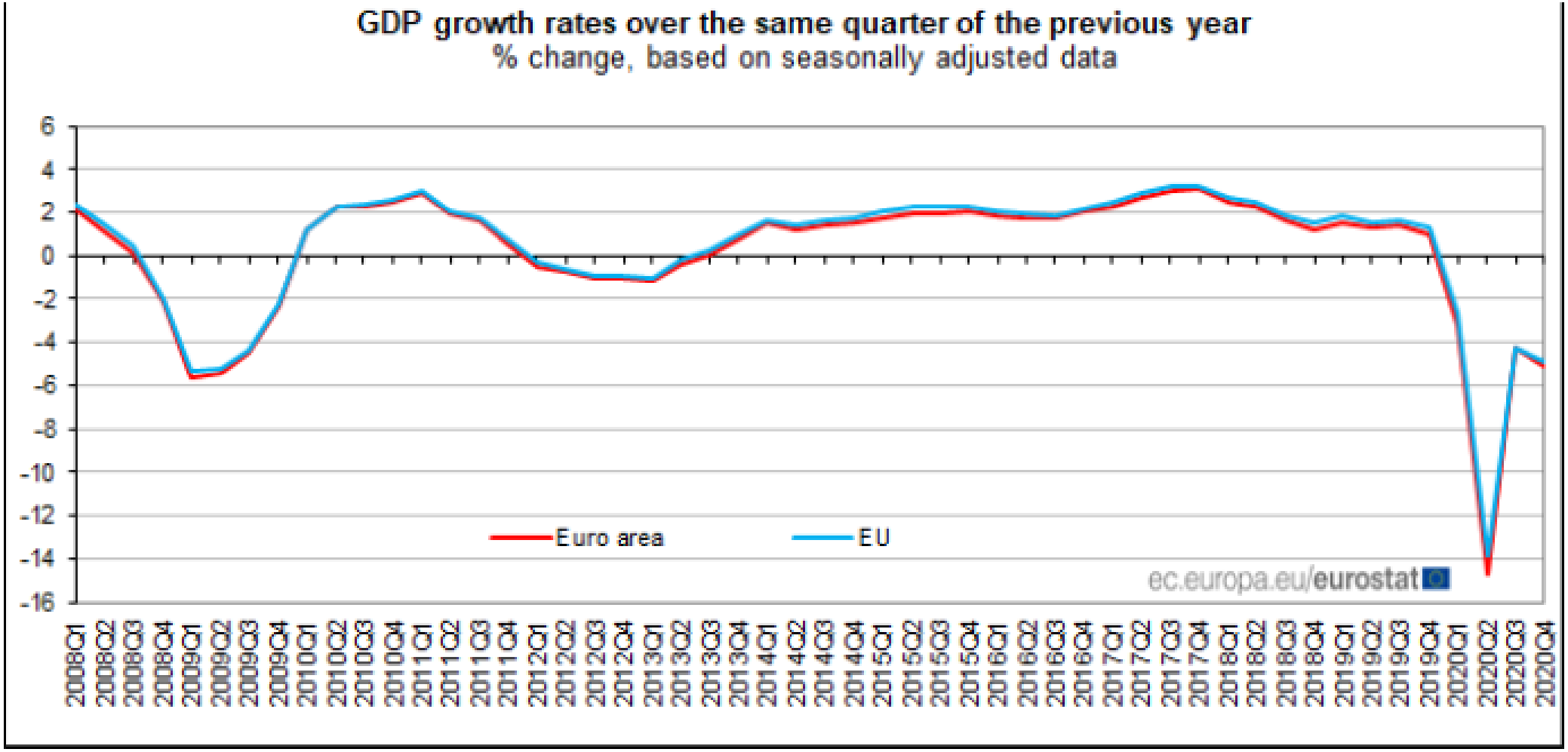
The Challenge

Defending Growth

Understanding Growth

A Growth Plan

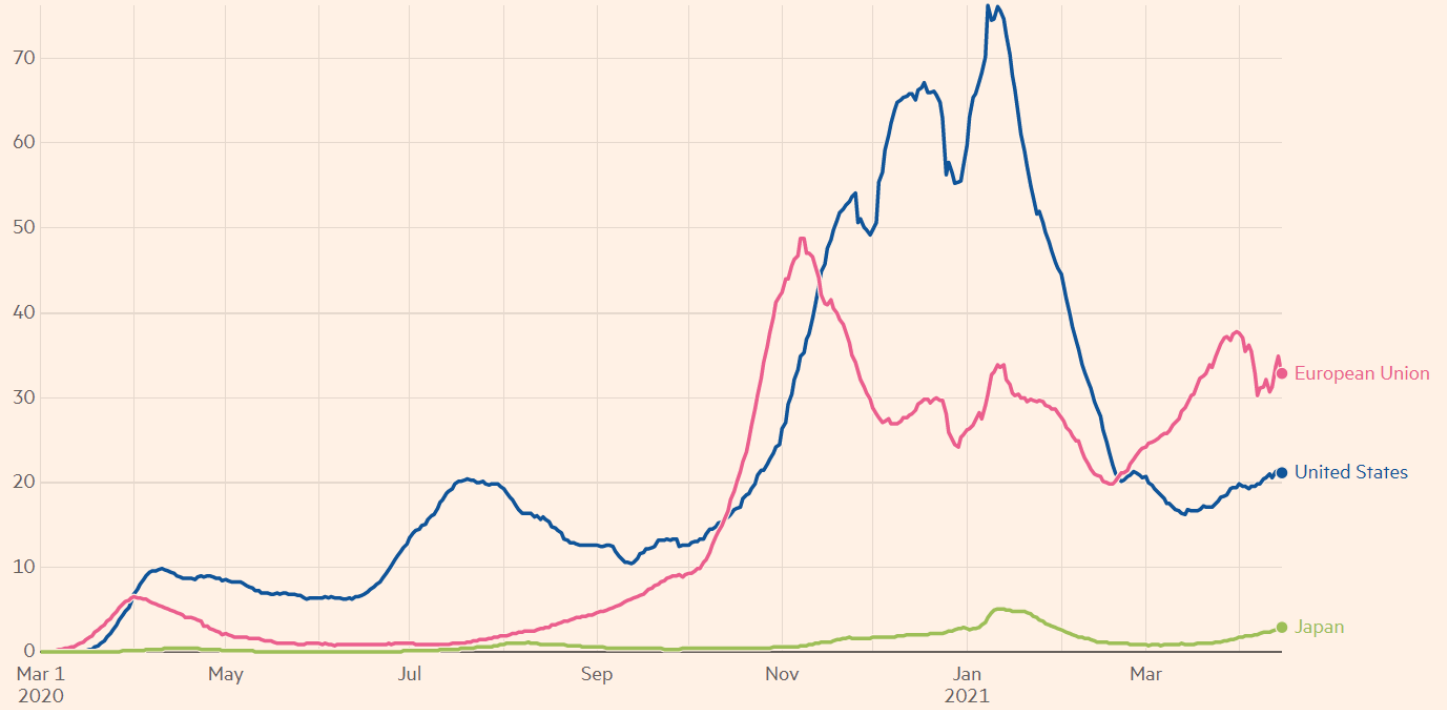
The Big Hit: EU GDP growth (and more to come….)



Source: European Commission, Feb 2021 https://ec.europa.eu/eurostat/documents/portlet_file_entry/2995521/2-02022021-AP-EN.pdf/0e84de9c-0462-6868-df3e-dbacaad9f49f#:~:text=According%20to%20a%20first%20estimation,and%206.4%25%20in%20the%20EU.

New confirmed cases of Covid-19 in United States, European Union and Japan

Seven-day rolling average of new cases (per 100k)



Source: Financial Times analysis of data from the Johns Hopkins CSSE, the World Health Organization, the UK Government coronavirus dashboard, Public Health France and the Swedish Public Health Agency.
Data updated April 16 2021 3.13pm BST. Interactive version: ft.com/covid19

FINANCIAL TIMES

OUTLINE OF TALK

The Challenge

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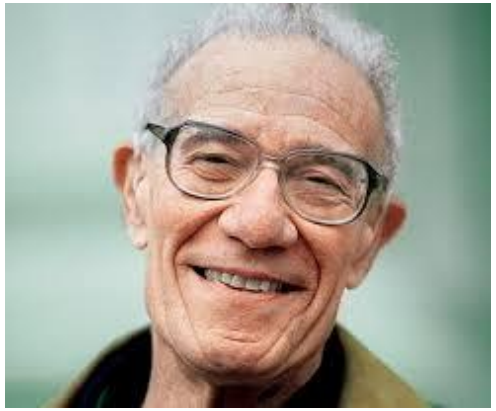
Understanding Growth

- Growth is a story of technical change not just an accumulation of more people or more capital

- **US Output per hour grew at ~2.5% per annum since WW2** (Jones, 2015)
  - 0.1% from capital deepening
  - 0.4% from labour composition
  - 2.0% from TFP (“Solow Residual”)

Nobel Laureate Bob Solow, MIT



TFP growth is not just frontier advances

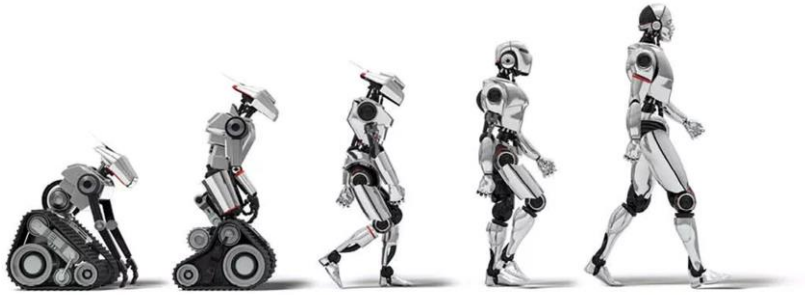
- Long recognised that developing countries can grow quickly through “catch up” (diffusion)
  - Clearly true of middle income countries. e.g. ex-Soviet EU Member States

TFP growth is not just frontier advances

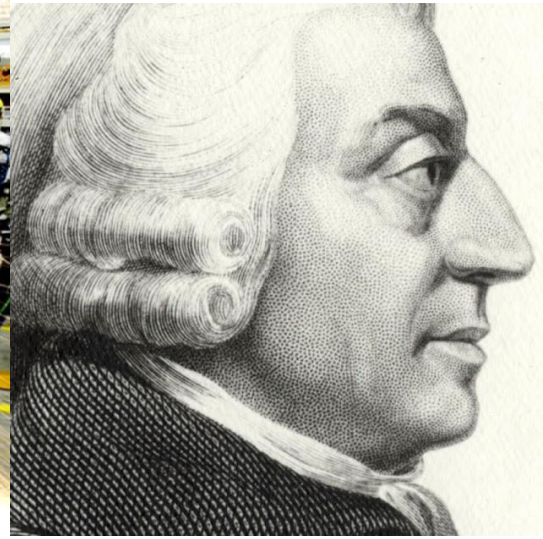
- Long recognised that developing countries can grow quickly through “catch up” (diffusion)
  - Clearly true of middle income countries. e.g. ex-Soviet EU Member States
- In advanced economies like EU **frontier innovation is key**, but still room for improvement without frontier growth
  - **Diffusion** of technology
  - Reducing **Misallocation**
    - Both reflected in large differences in productivity across firms. These have grown *larger* over time (e.g. Andrews, Criscuolo & Gal, 2015)

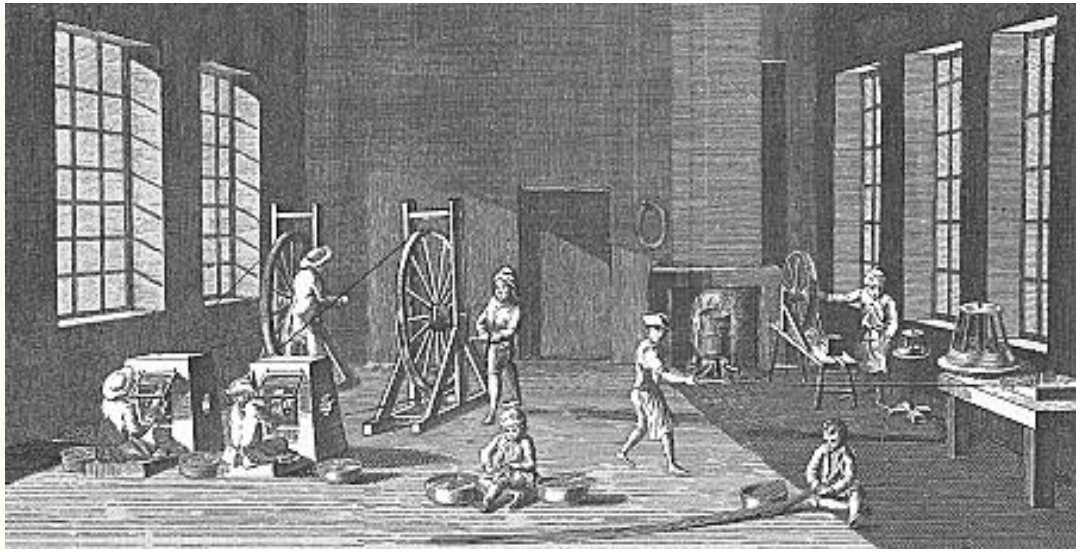
Growth Analytics: Two fundamental sources of growth

- **Technology**
- **Management practices**



Toyota Plant

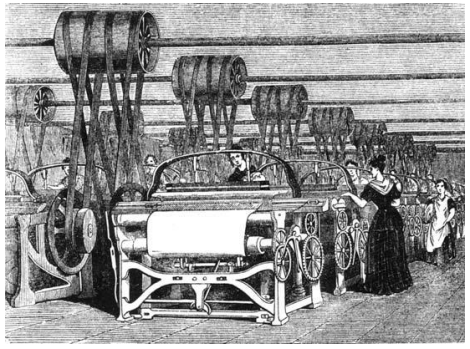




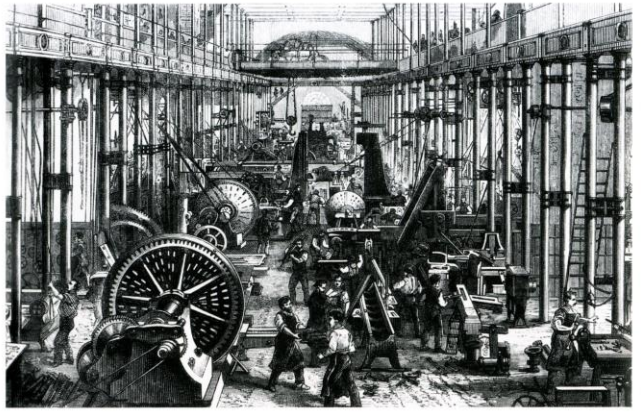
Adam Smith and the Pin Factory

Industrial revolutions

- **First Industrial Revolution: ~1760-1840**
- Second Industrial Revolution: 1870-1914
- Third Industrial Revolution: 1996-2004; Digital
- Fourth Industrial Revolution: ???



James Watt
(1736-1819)



Industrial revolutions

- First Industrial Revolution: ~1760-1840
- **Second Industrial Revolution: ~1870-1914**
- Third Industrial Revolution: 1996-2004; Digital
- Fourth Industrial Revolution: ???

Lightbulb
Thomas Edison, 1879

Internal Combustion Engine
Karl Benz, 1879

Wireless, David Edward Hughs, 1879

Industrial revolutions

- First Industrial Revolution: 1760-1840
- Second Industrial Revolution: 1870-1914
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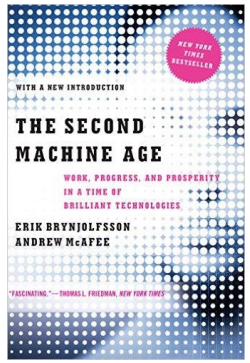
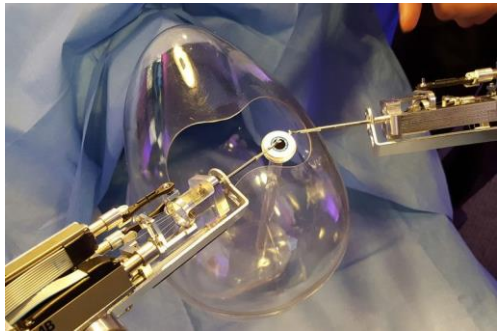
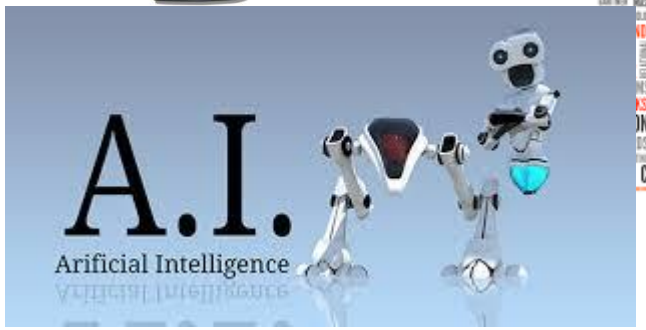
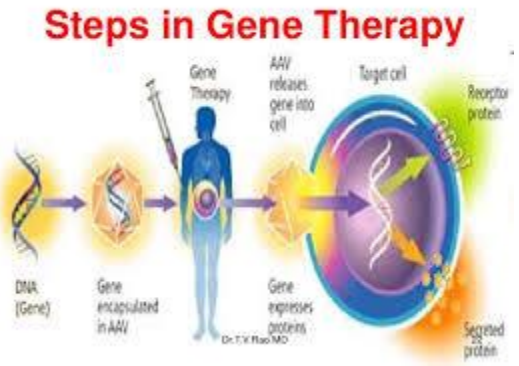




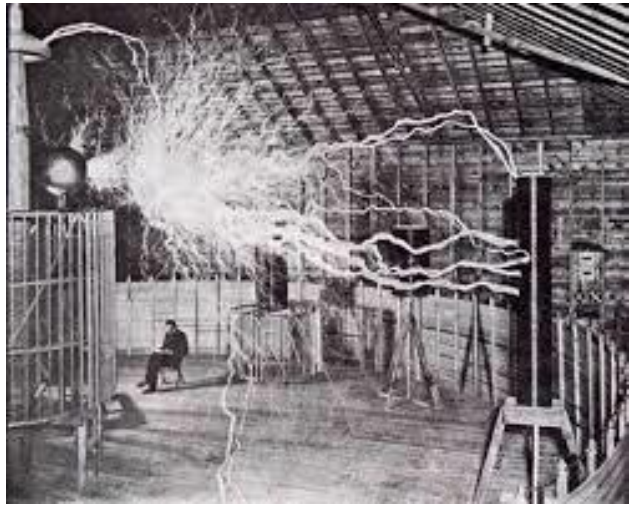




Not just technology: Management practices a driver of productivity growth

- **Innovations in management,**
  - Taylor's Scientific management (1900s)
  - Fordist Mass production (1920s)
  - Alfred Sloan's M-form firm (1930s)
  - Demming's quality movement (1950s)
  - Toyota Lean Manufacturing System (1970s)

- Need to change organization of work to make best use of innovation (electricity, computers, AI, …)
- Firms can spend a lot of money on tech to little effect

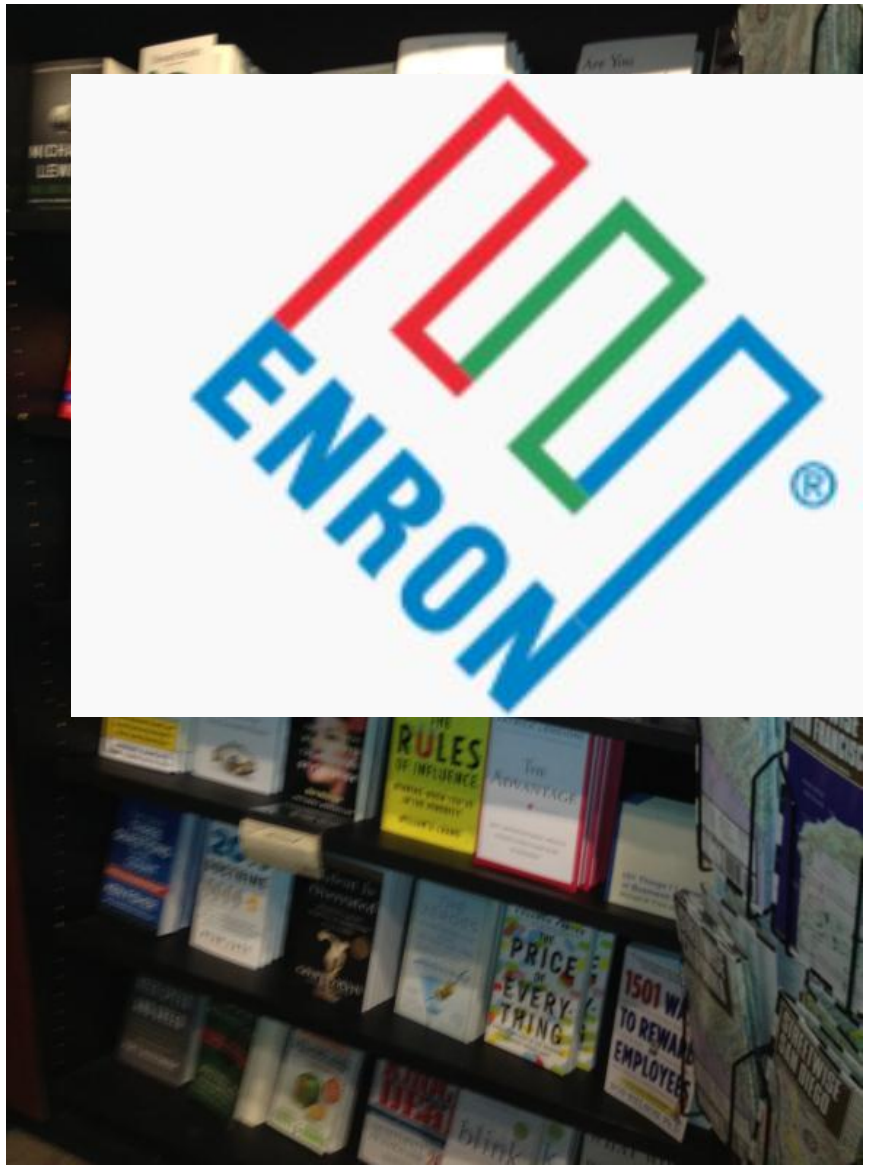


There is still debate on whether management practices really matter

"*No potential driving factor of productivity has seen a higher ratio of speculation to empirical study*".

Chad Syverson (*Journal of Economic Literature*)

There is still debate on whether management practices really matter

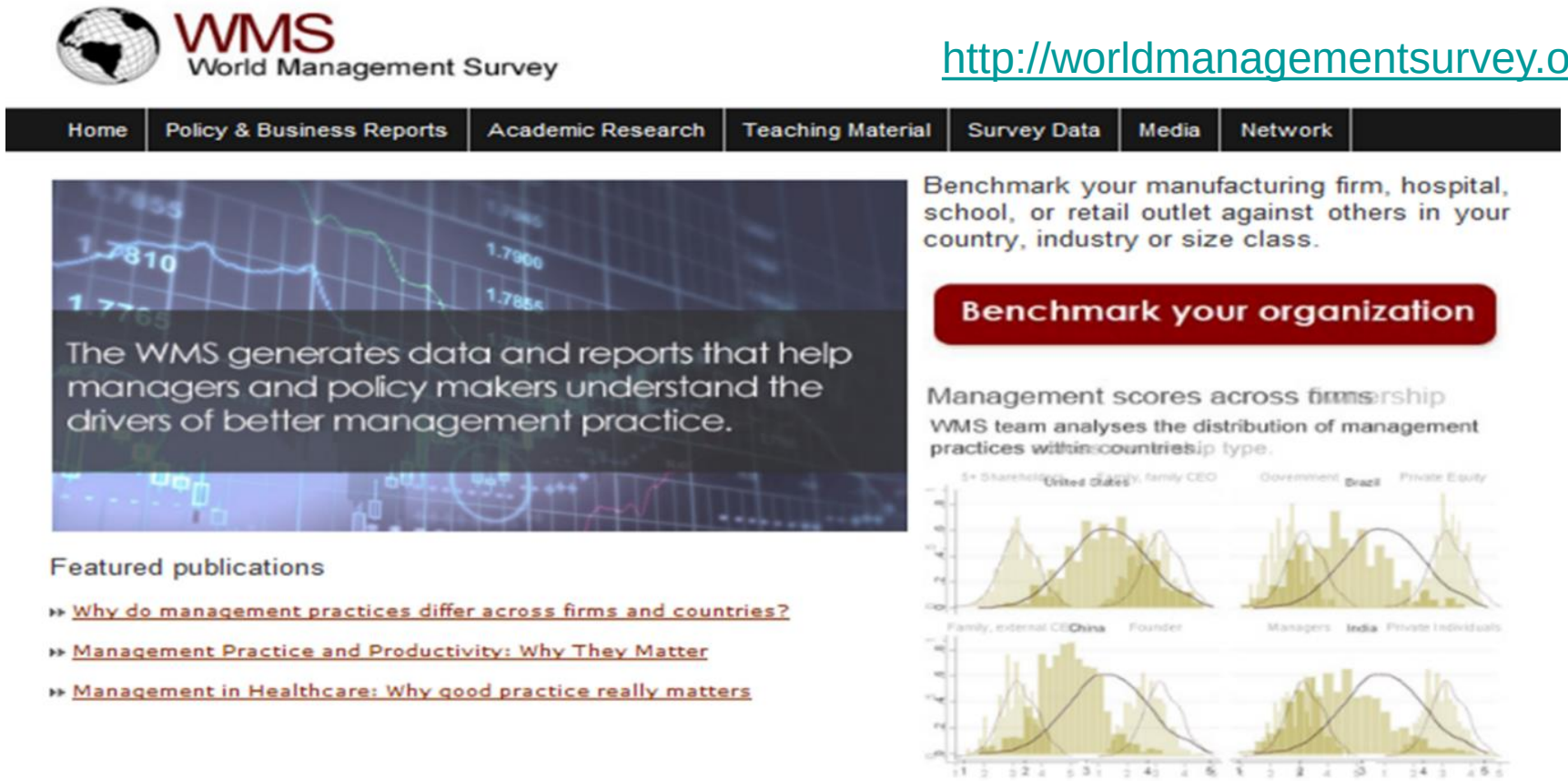


There is still debate on whether management practices really matter

Enron ex-CEO, Jeff Skilling

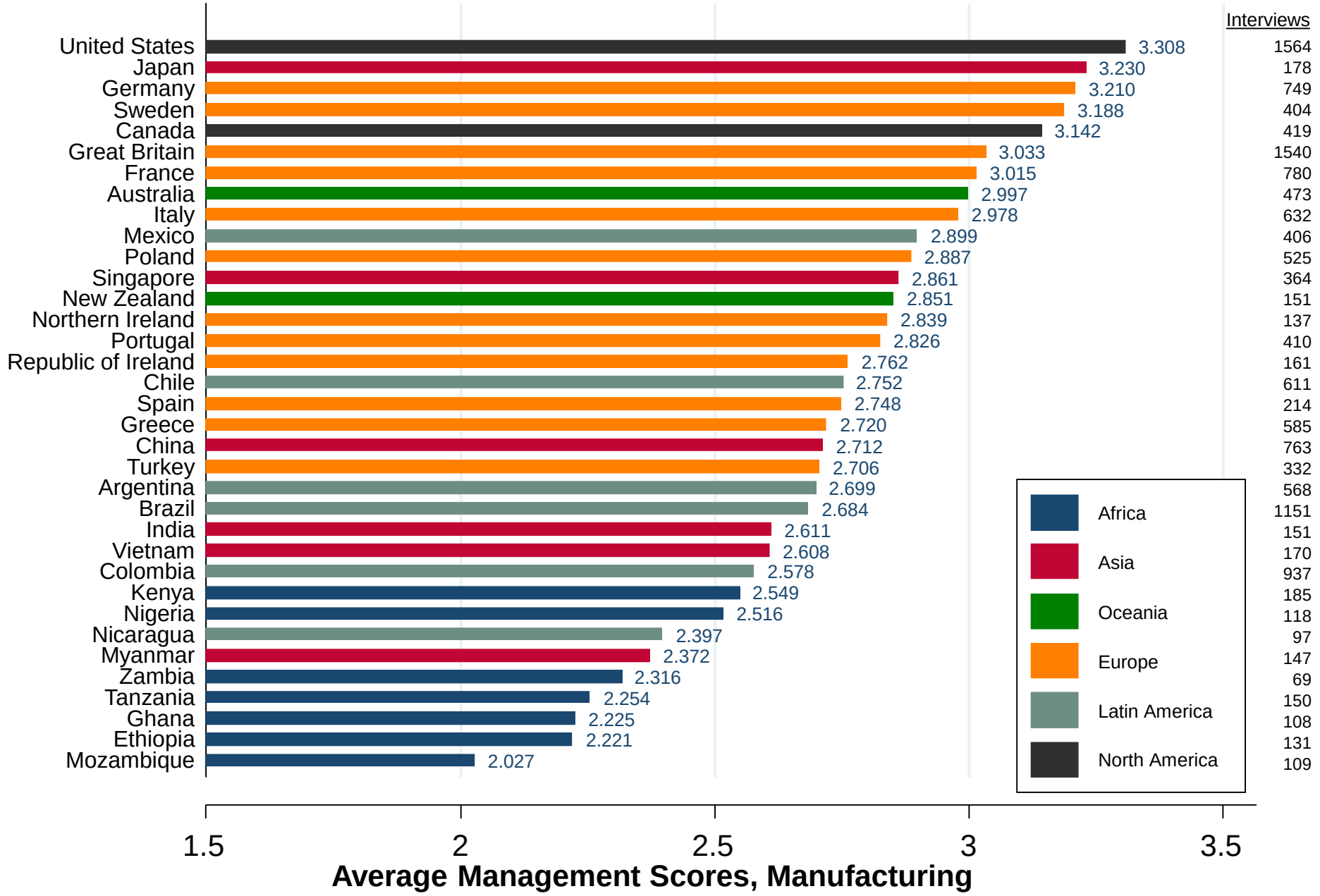
There is still debate on whether management practices really matter

World Management Survey (~25k interviews, 39 countries since 2004)



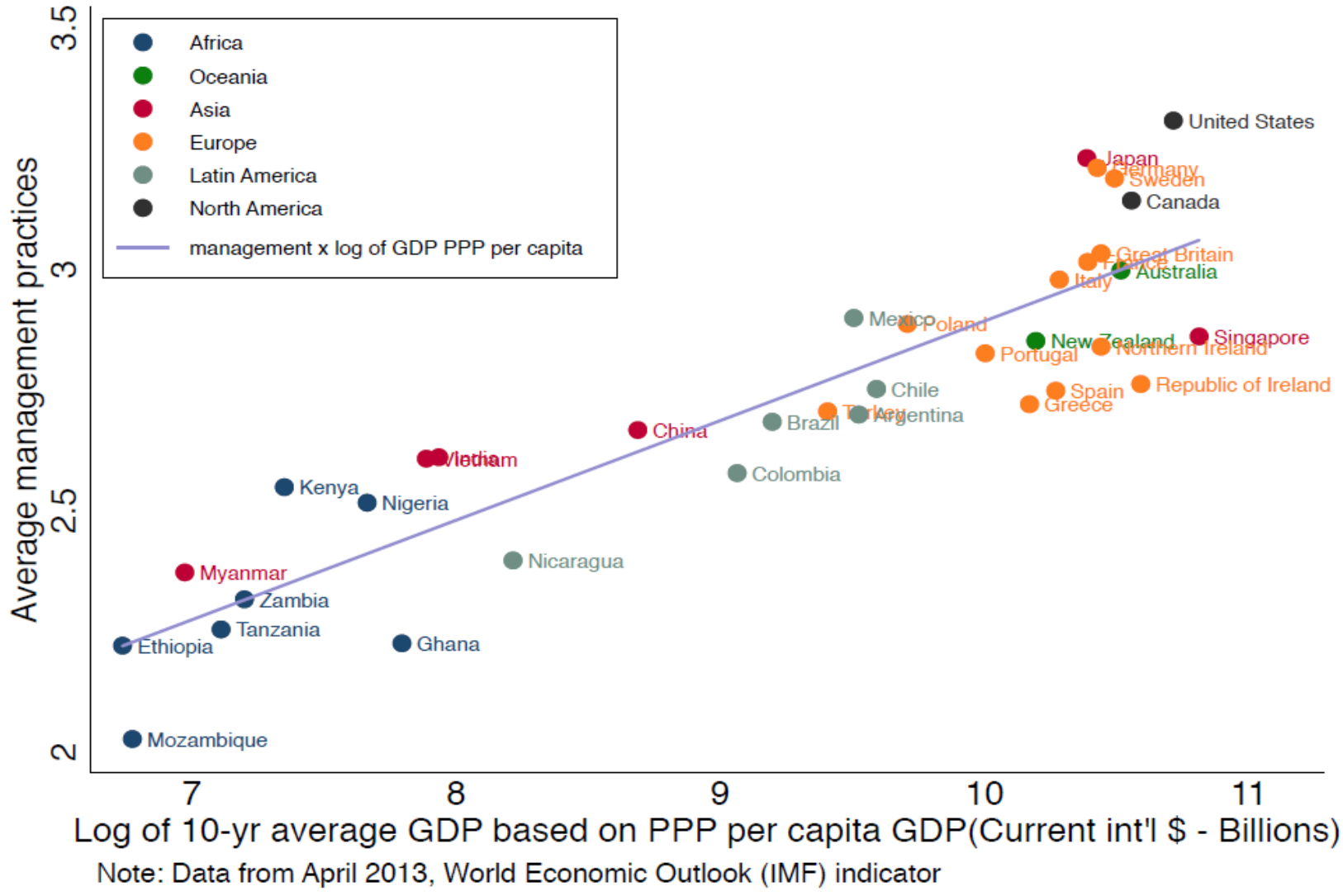
- Medium sized manufacturing firms(50-5,000 workers, median≈250)
- MOPS with Census Bureau (~40k US plants all sizes) & 9 other countries
- Extended to Hospitals, Retail, Education, Civil Service, etc.

Average Management Scores by Country similar to productivity



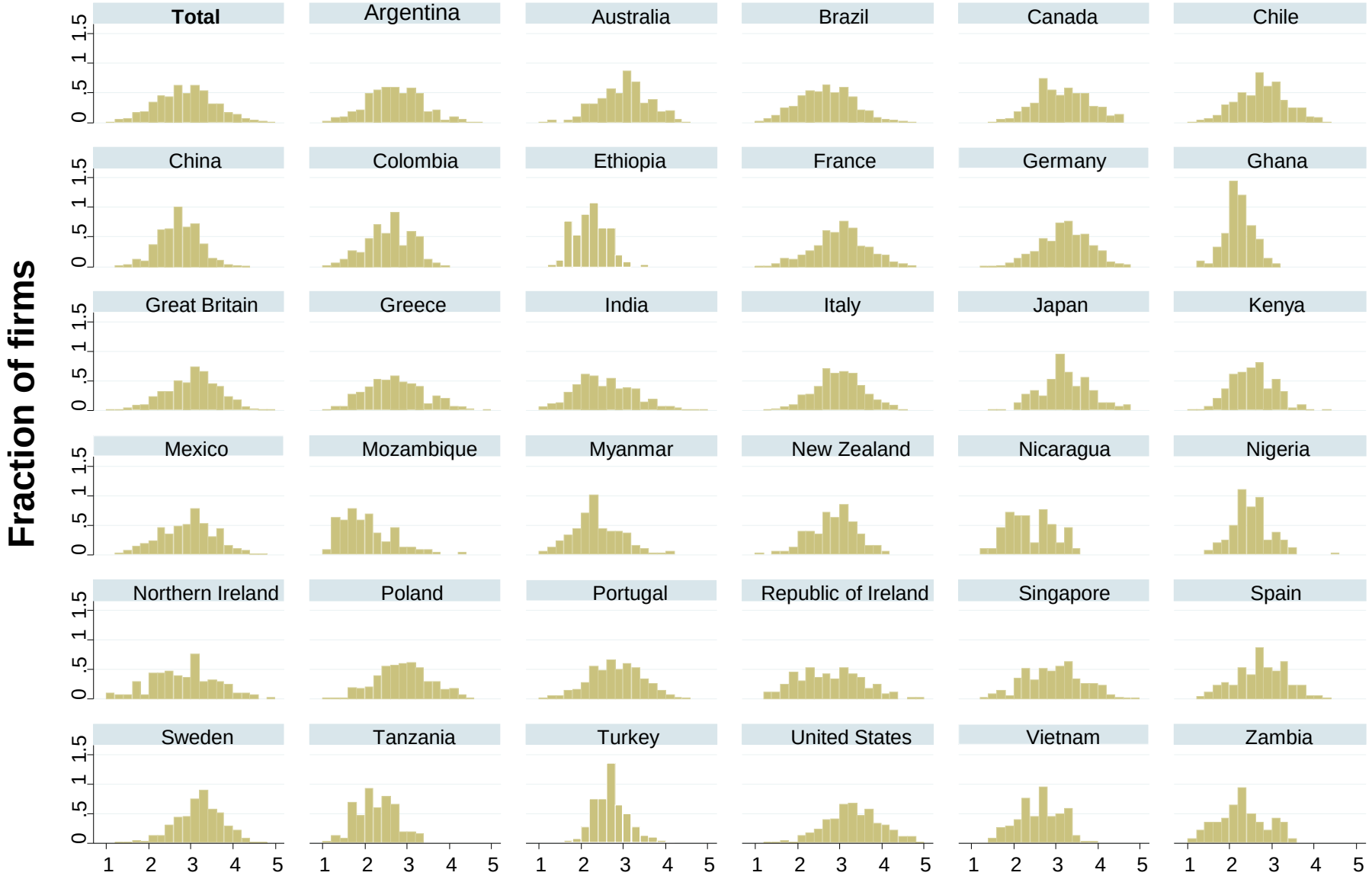
Source: Bloom, Sadun & Van Reenen (2020). **Note:** Unweighted average management scores; # interviews in right column (total = 15,489); all waves pooled (2004-2014)

Average management scores across countries are strongly correlated with GDP per capita



Note: Data from April 2013, World Economic Outlook (IMF) indicator

Management also varies heavily within countries



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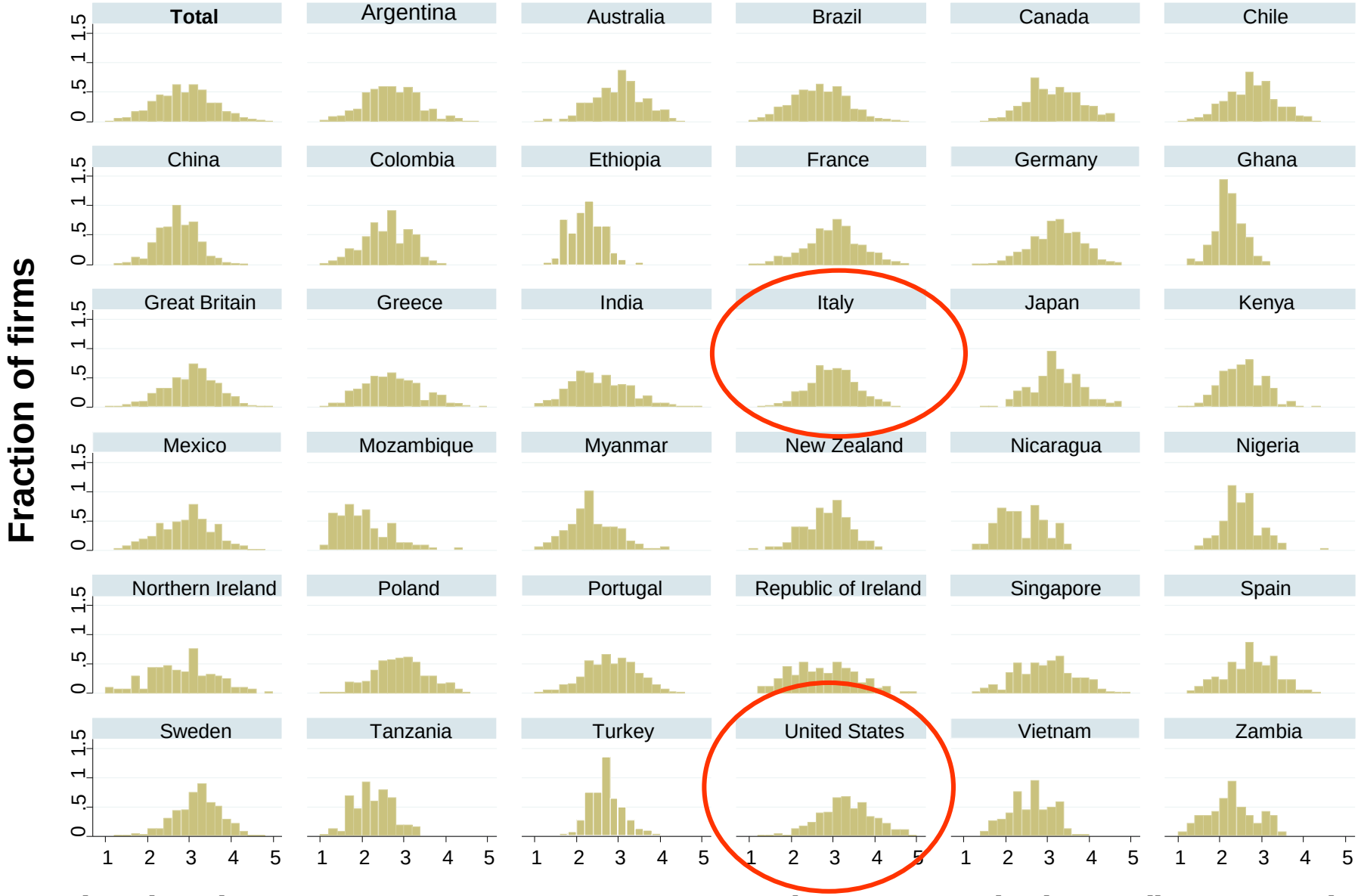
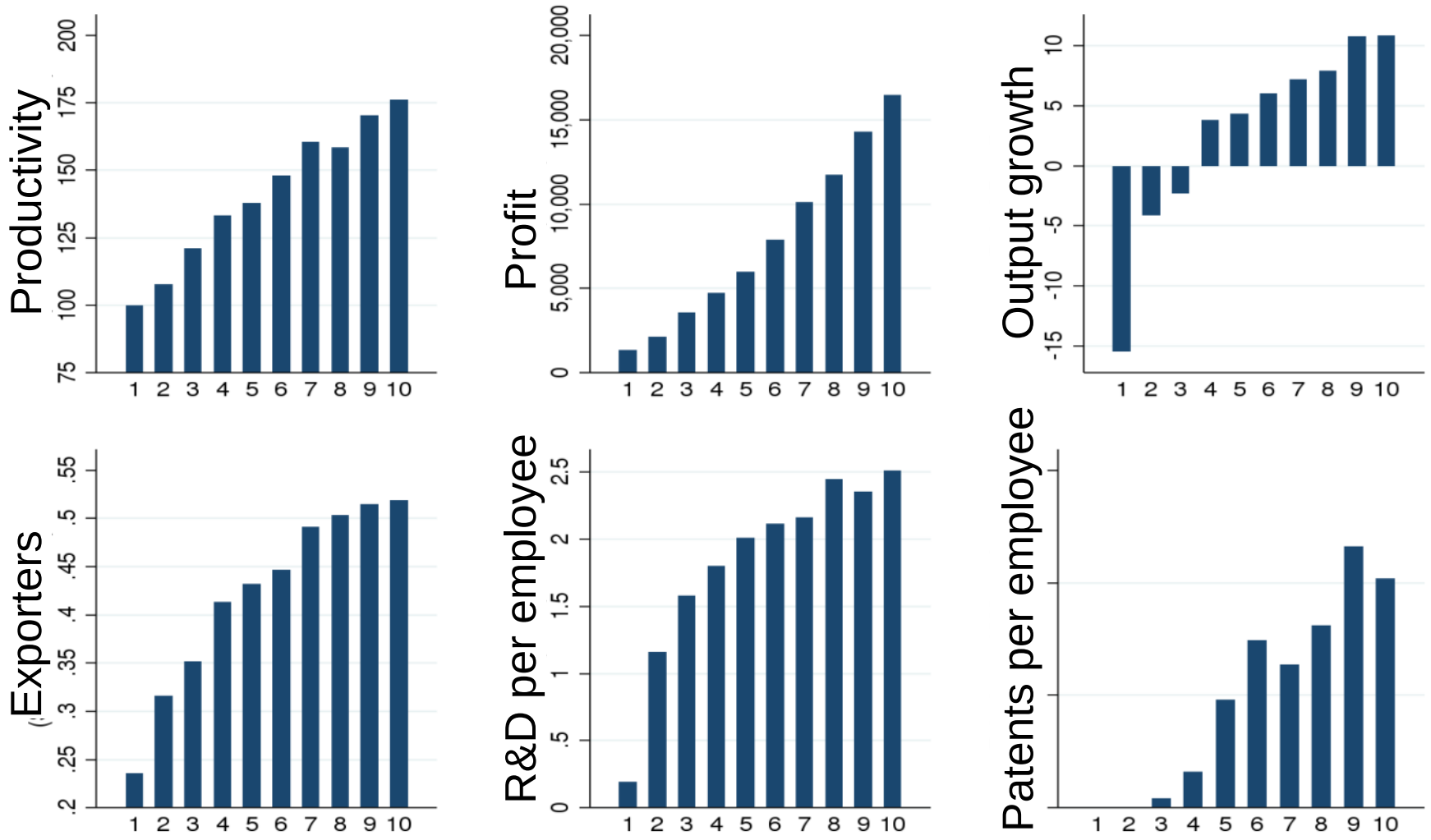
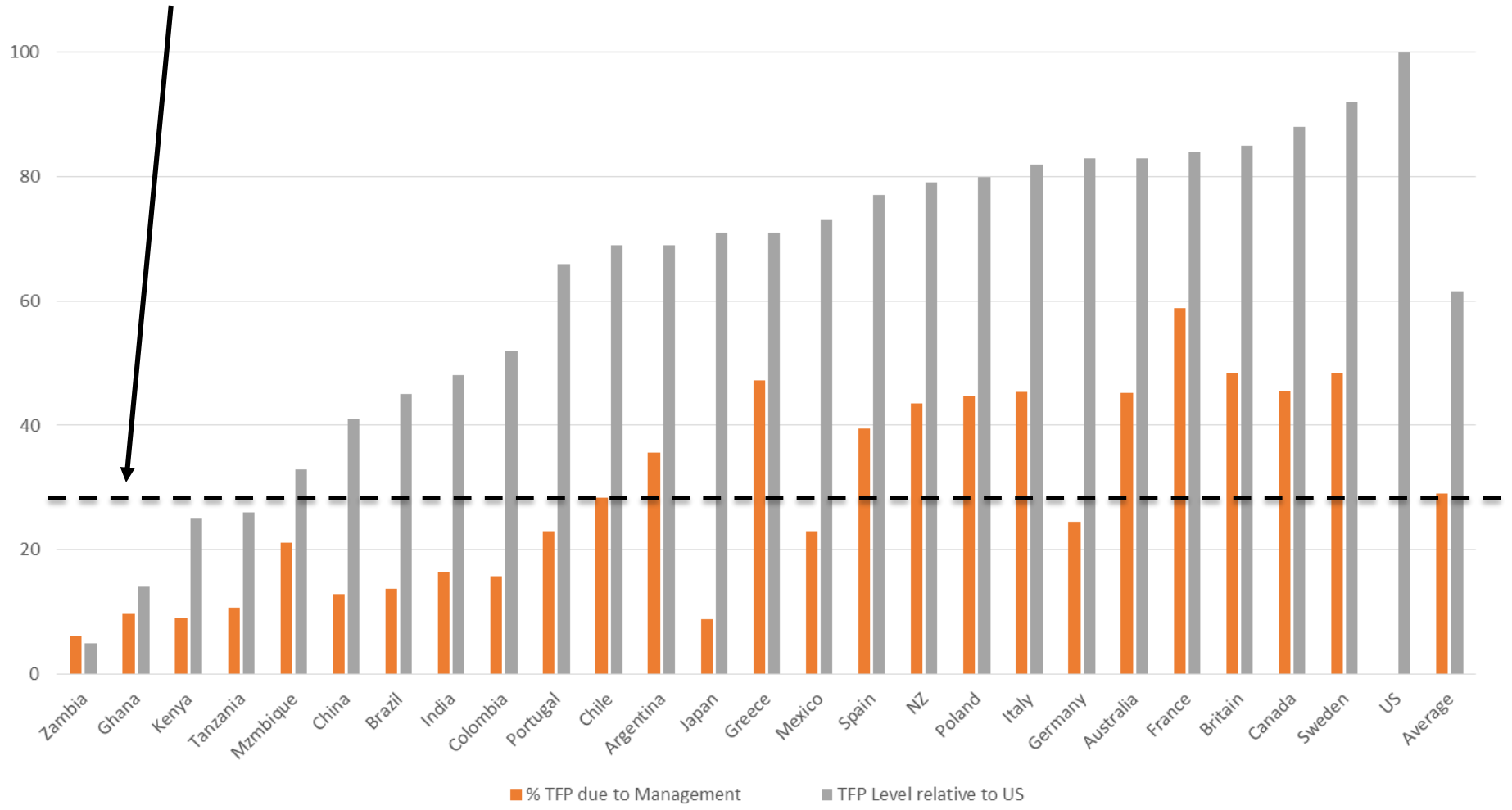


Management scores positively correlated with many measures of firm performance



Source: Bloom, Brynjolfsson, Foster, Jarmin, Patnaik, Saporta-Eksten & Van Reenen (2019, AER). MOPS

Management accounts for ~30% of TFP Gap with US (~third of this reallocation to better managed firms)



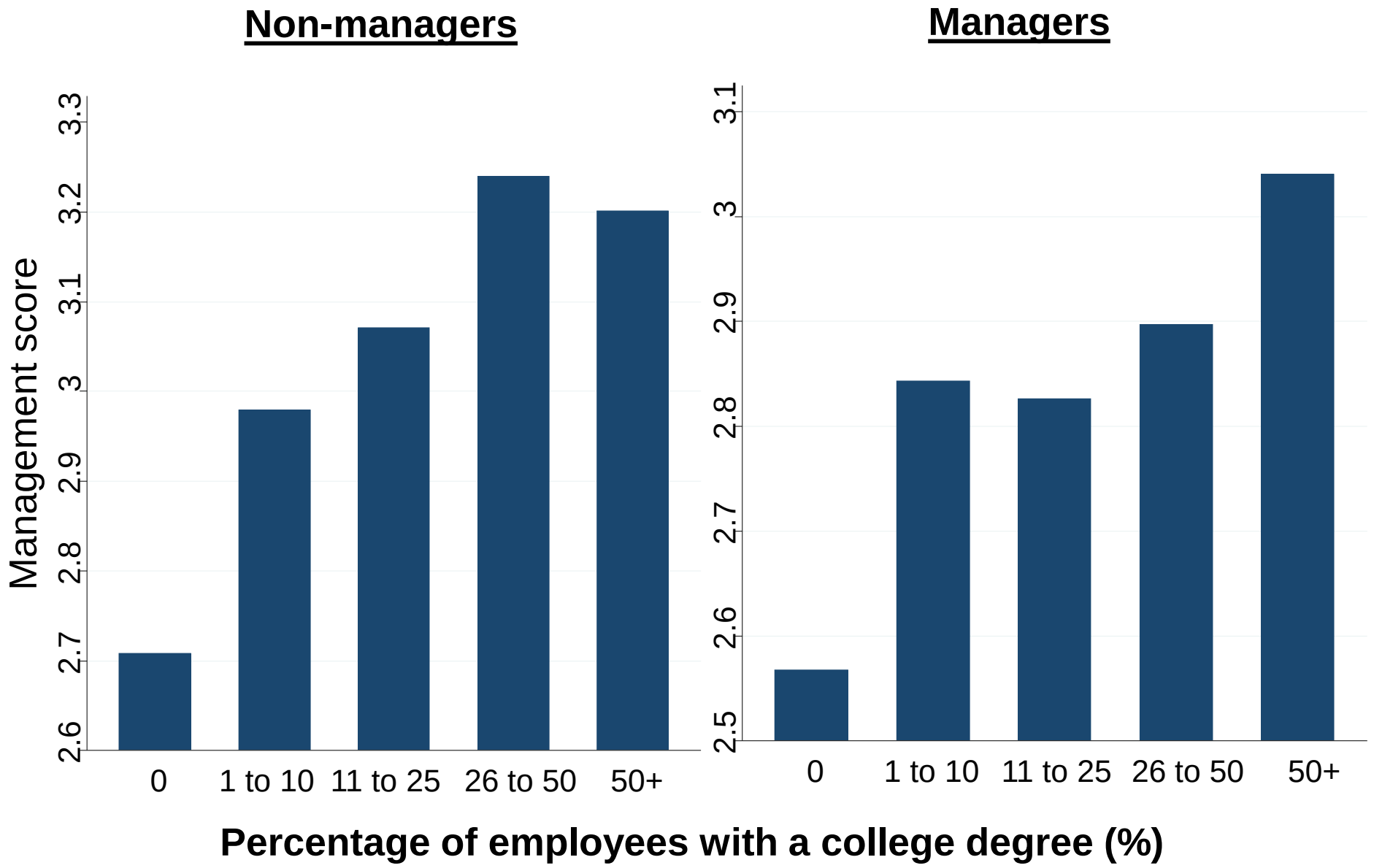
Source: Bloom, Sadun & Van Reenen "Management as a Technology"

Notes: TFP gaps from Penn World Tables; fraction accounted for by management uses the weighted average management scores and an assumed 10% impact of management on TFP

Some Drivers of Management

- **Human Capital**
- Information
- Competition
- Governance
- Regulation

EDUCATION FOR NON-MANAGERS AND MANAGERS APPEAR LINKED TO BETTER MANAGEMENT



Sample of 8,032 manufacturing and 647 retail firms.

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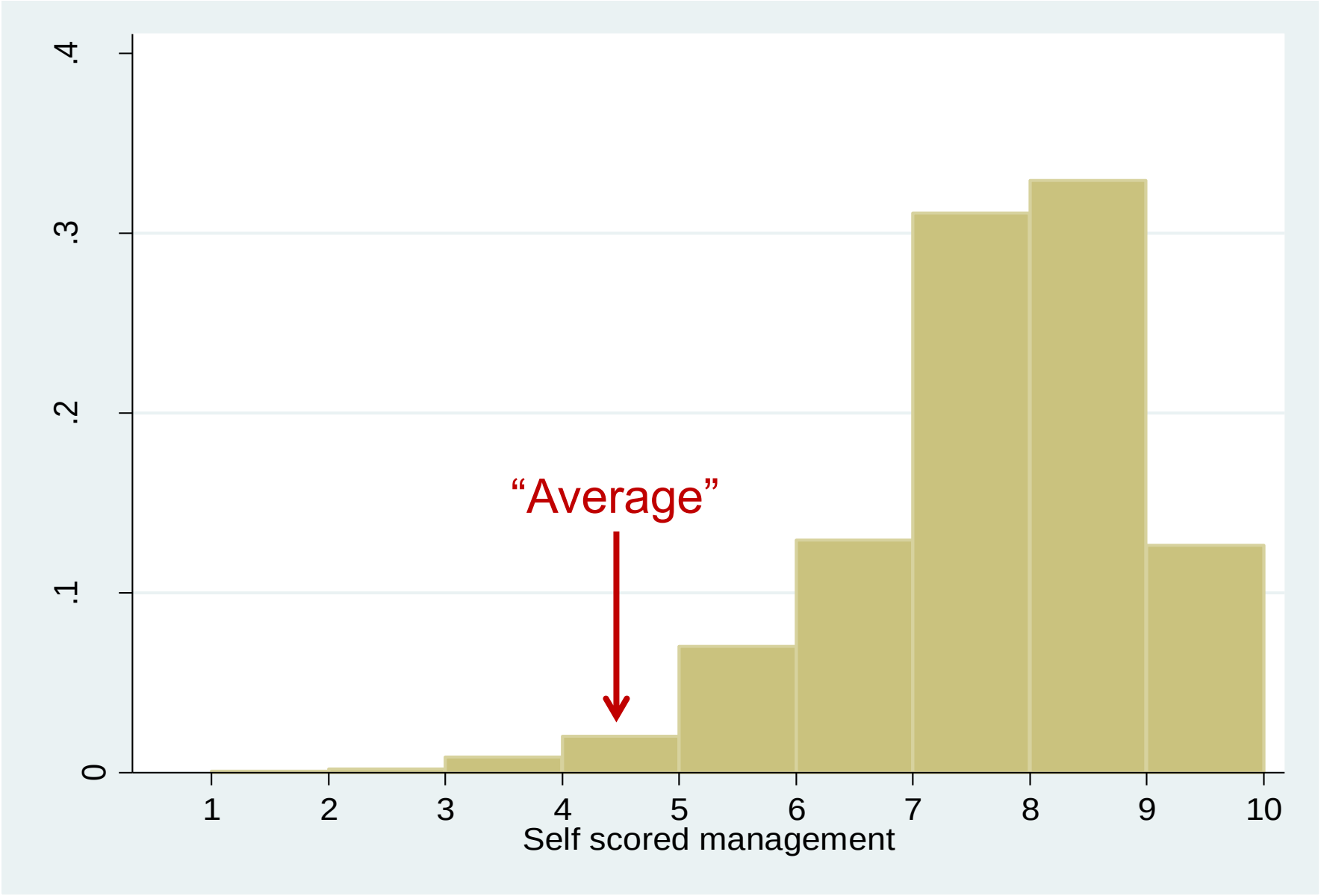
Information – Managers bad at self assessment

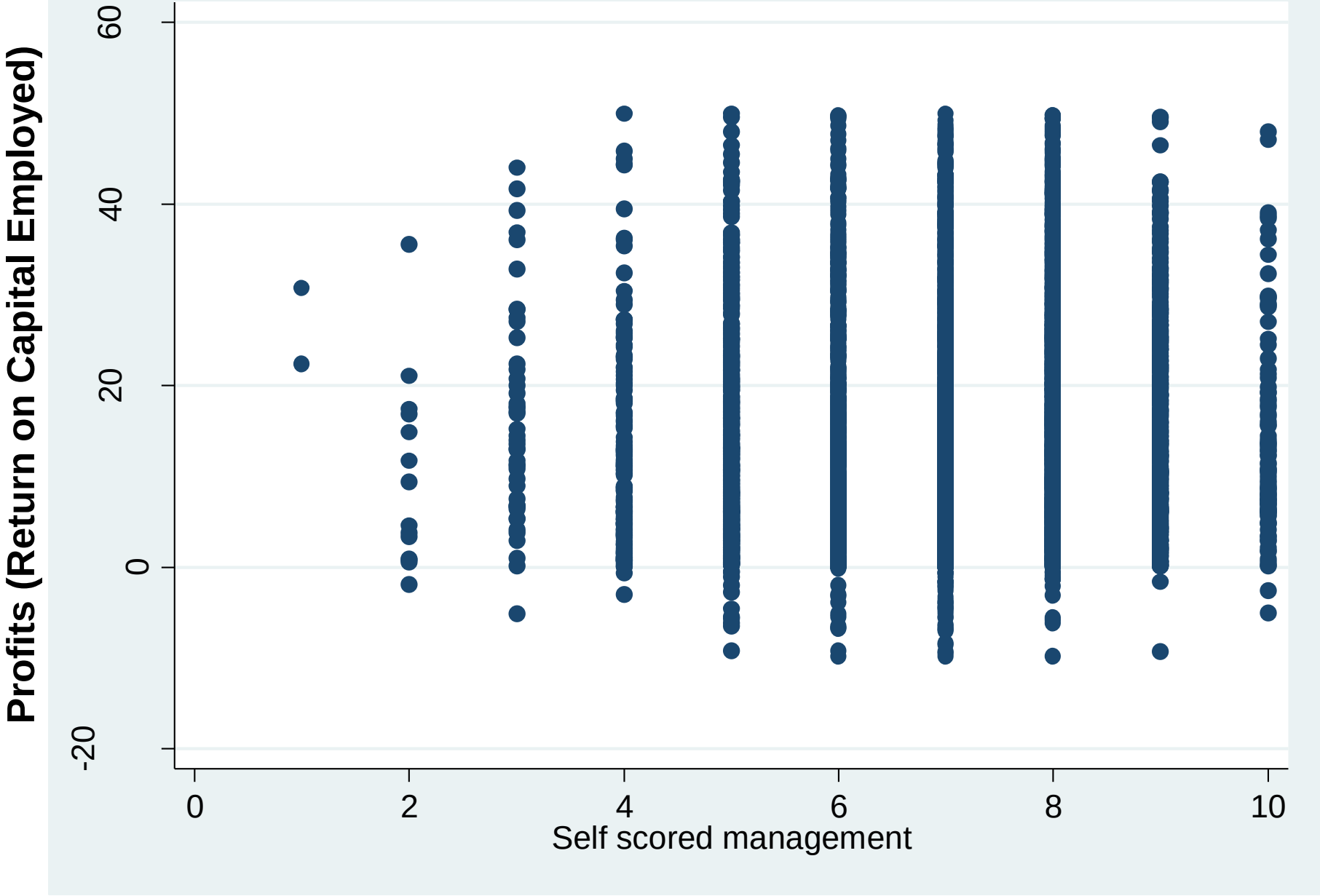
At the end of the WMS survey we asked:

"*Excluding yourself, how well managed would you say your firm is on a scale of 1 to 10, where 1 is worst practice, 5 is average and 10 is best practice*"

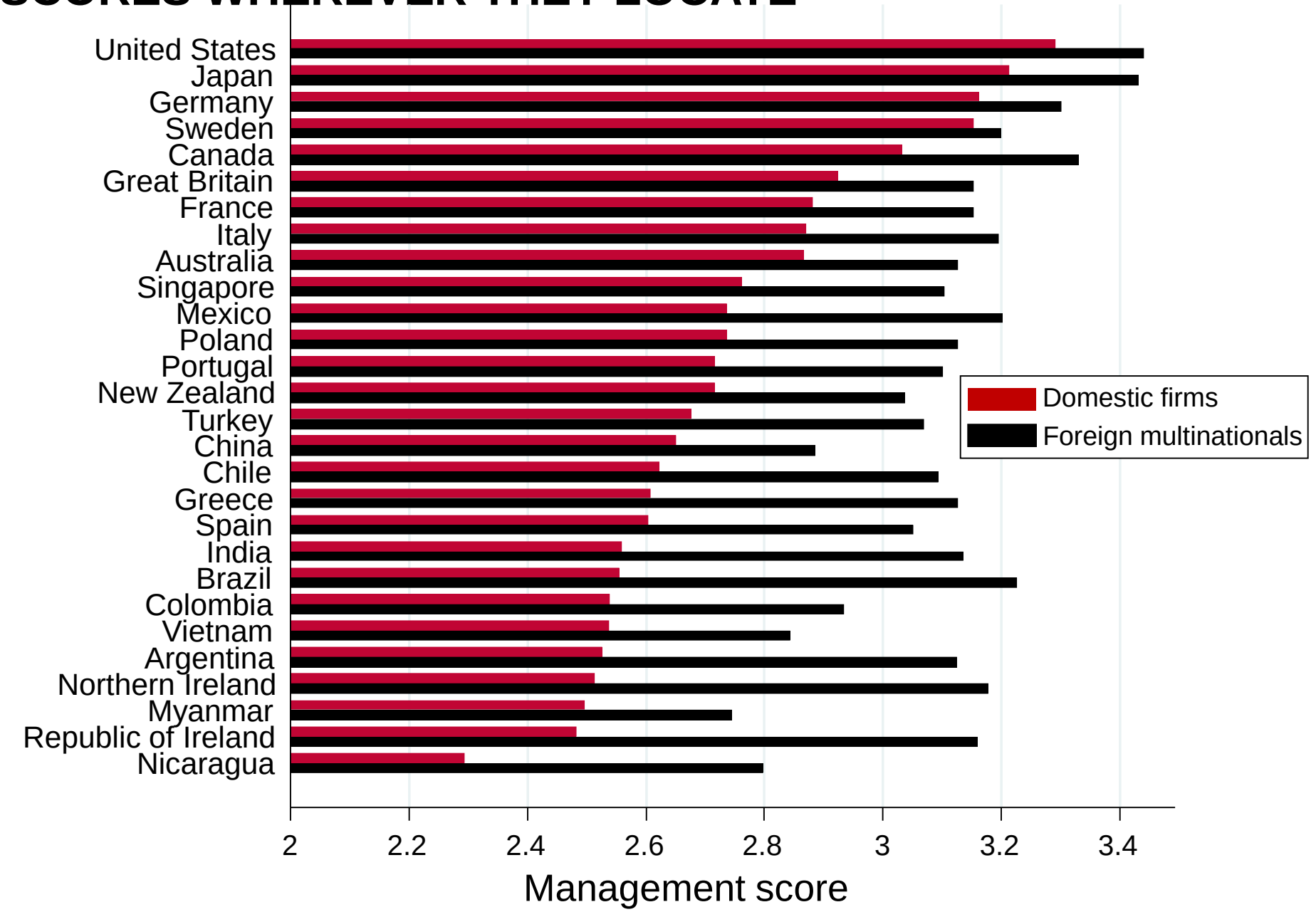
…and found firms are too optimistic on management



…and self-scores show no link to performance



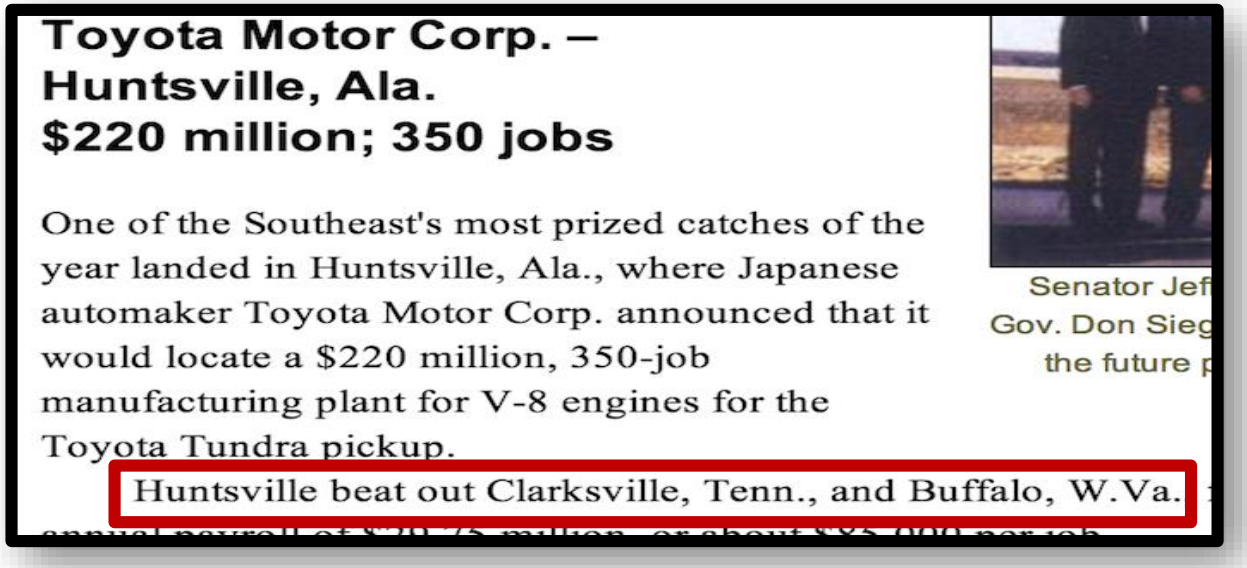
MULTINATIONALS ACHIEVE HIGH MANAGEMENT SCORES WHEREVER THEY LOCATE



<u>Testing Informational Spillovers</u> - Look at impact on incumbent plants in a county which wins a "Million Dollar Plant" (MDP) versus plants in runner up counties

Following Greenstone, Hornbeck & Morretti (2010) use Site Selection magazine to look at impact of winning an MDP

Magazine has monthly stories about winning county and runner up counties, which we supplement with news coverage



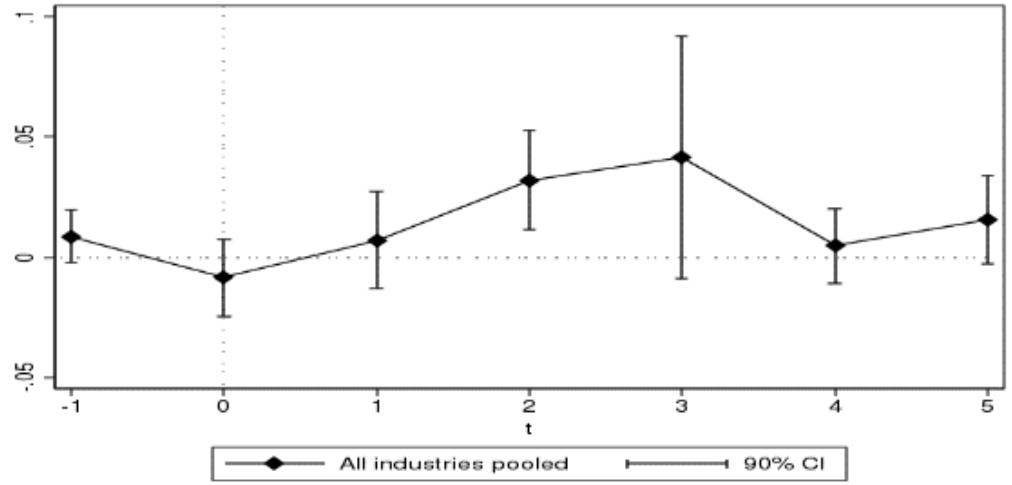
Toyota Motor Corp. –
Huntsville, Ala.
$220 million; 350 jobs

One of the Southeast's most prized catches of the year landed in Huntsville, Ala., where Japanese automaker Toyota Motor Corp. announced that it would locate a $220 million, 350-job manufacturing plant for V-8 engines for the Toyota Tundra pickup.

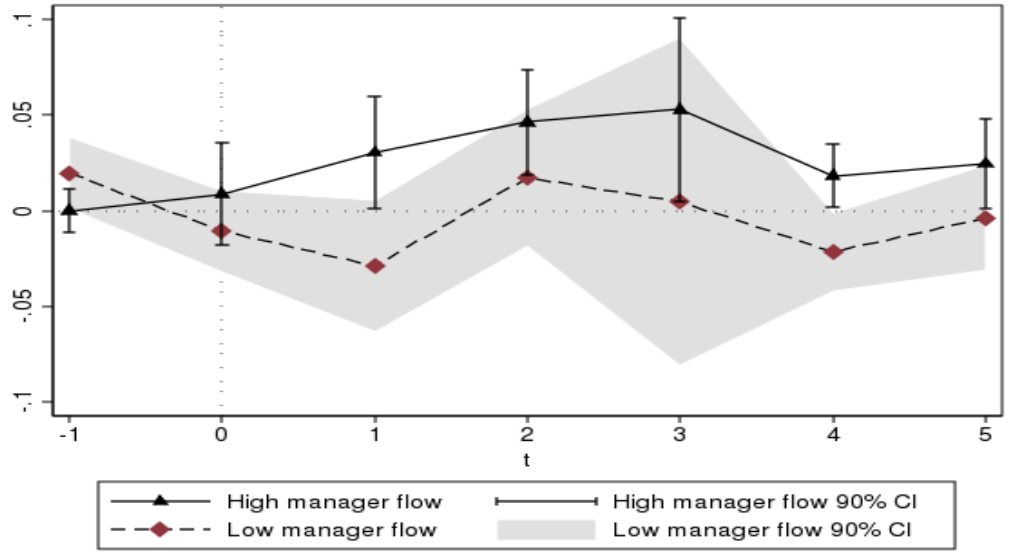
Huntsville beat out Clarksville, Tenn., and Buffalo, W.Va.

Senator Jef
Gov. Don Sieg
the future p

Multinational Plants' information spills over to other incumbent local plants' MOPS management



Panel A:
Overall Treatment Effect



Panel B:
Bigger effects on plants in industries where we (ex ante) predict managerial information flow higher

Source: Bloom, Brynjolfsson, Foster, Jarmin, Patnaik, Saporta-Eksten & Van Reenen (2019, AER) "Drivers"

Some Drivers of Management

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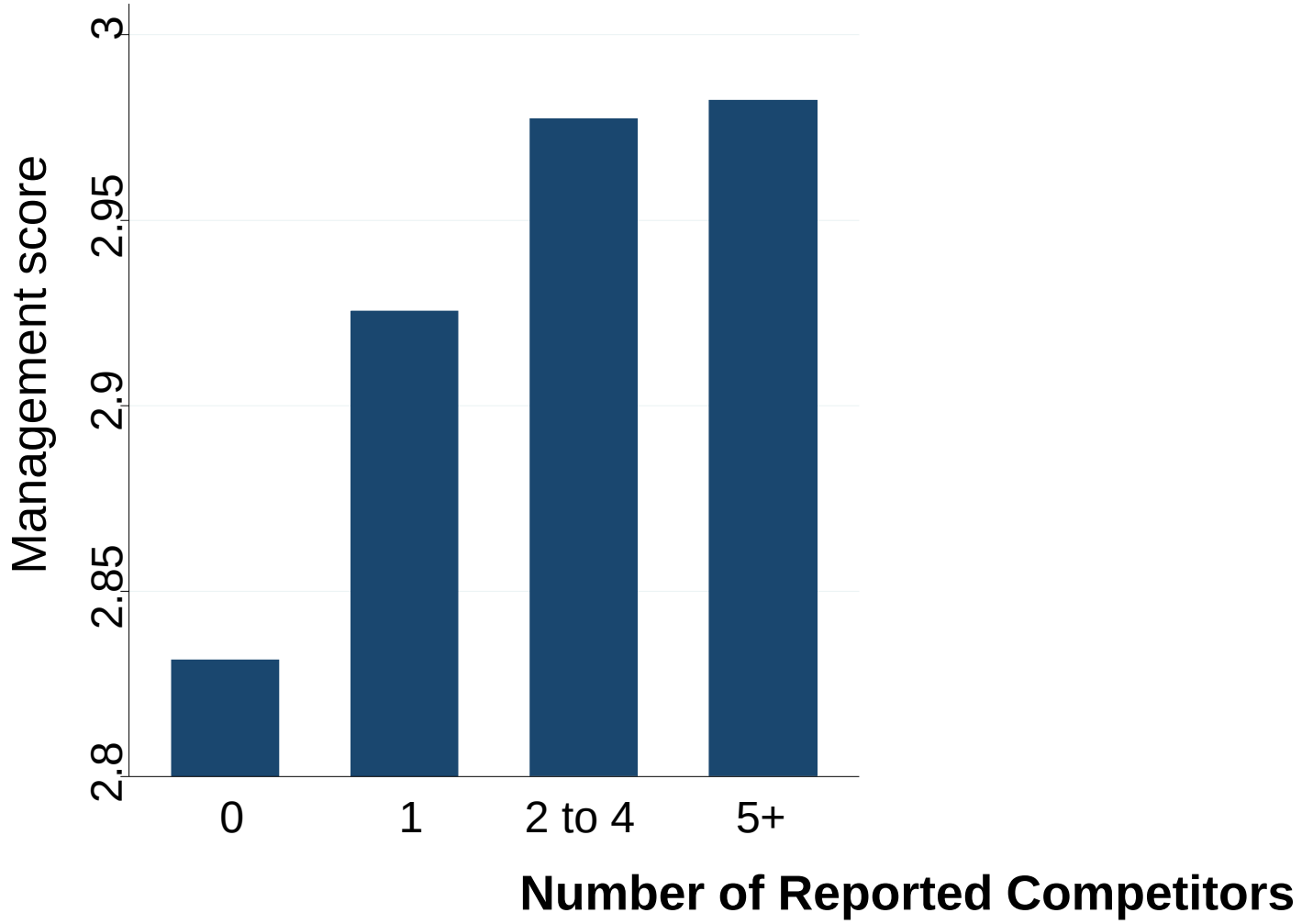
- **Competition**
- Governance
- Regulation

COMPETITION ASSOCIATED WITH BETTER MANAGEMENT

Manufacturing and Retail



Sample of 9469 manufacturing and 661 retail firms (private sector panel) Reported competitors defined from the response to the question “How many competitors does your [organization] face?”

Some Drivers of Management

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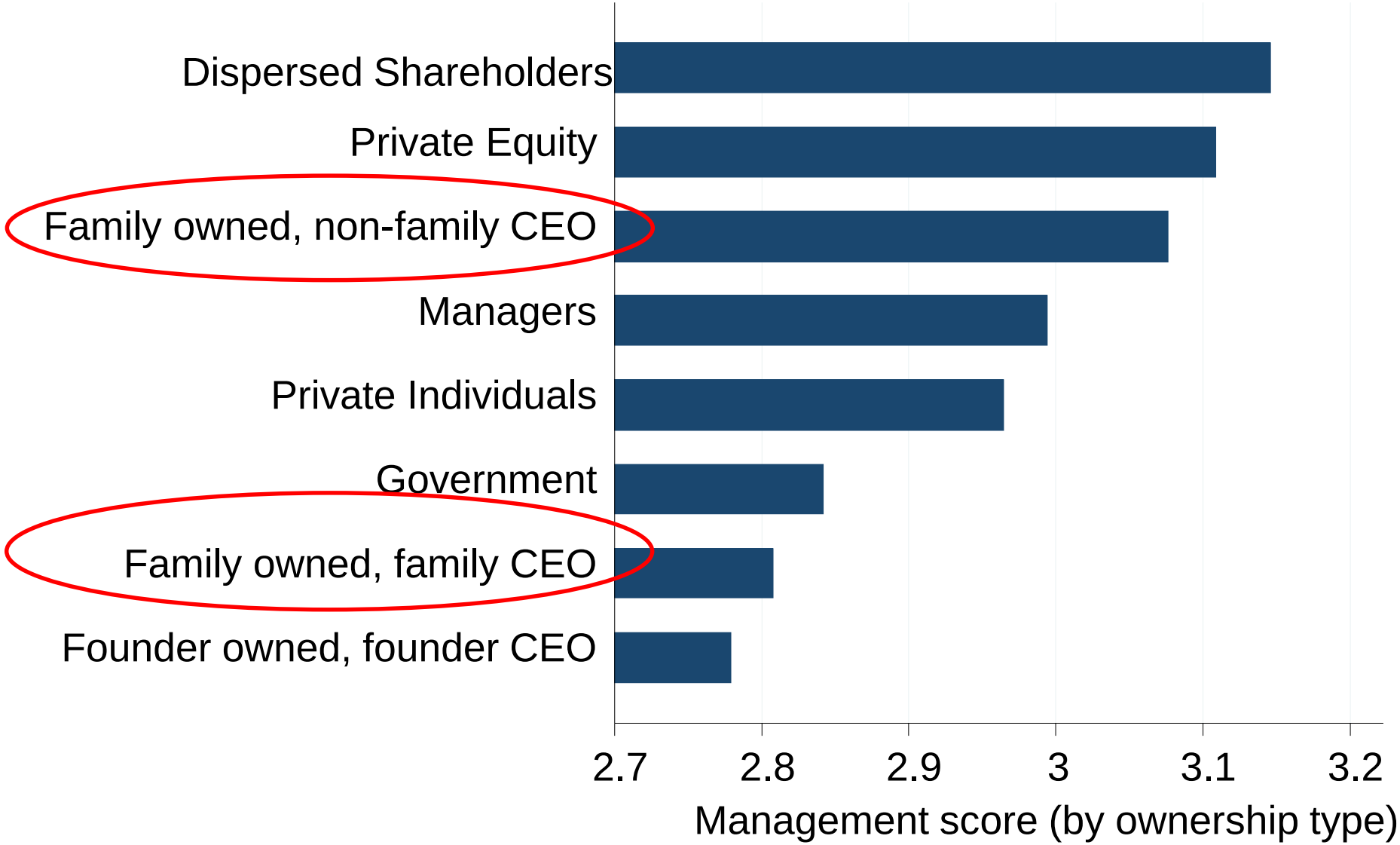
GOVERNANCE: FAMILY-RUN AND GOVERNMENT FIRMS TYPICALLY HAVE VERY POOR MANAGEMENT



Management scores after controlling for country, industry and number of employees. Data from 9085 manufacturers and 658 retailers. “Founder owned , founder CEO” firms are those still owned and managed by their founders. “Family firms” are those owned by descendants of the founder “Dispersed shareholder” firms are those with no shareholder with more than 25% of equity, such as widely held public firms.

OUTLINE OF TALK

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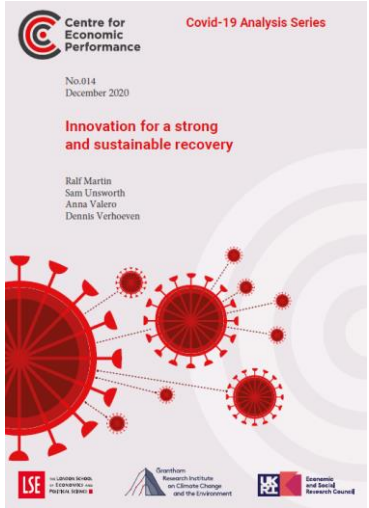
Principles for Inclusive and Sustainable Growth

- **Short-run**
- **Long-run**
- Need to link together and be **evidence**-based
- For policy **details** see

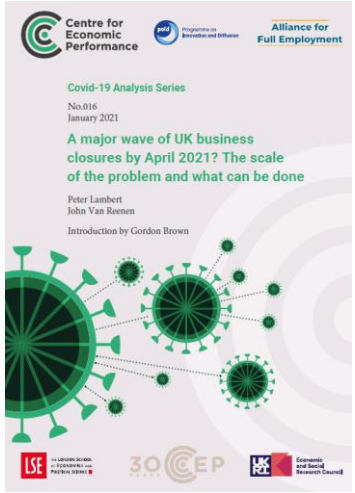


Principles for Inclusive and Sustainable Growth: Short-run

- Avoiding premature **austerity** prolonging depressed demand

- Balancing **Protection** and **Reallocation**
  - As we move into post COVID era, need to facilitate reallocation of jobs between firms.

- Many support packages due to have imminent cliff edges (in UK, CJRS, CGILS, BBLS, etc.)
  - Smooth the wind-down of worker and business support (reduces loss of viable skills and firms)
  - Will need some debt restructuring: debt-for-equity & write-offs
  - Combine with support for startups/growth



Principles for Inclusive and Sustainable Growth: Long-run

- Institutional architecture to mitigate policy ADD (Attention Deficit Disorder). Policy uncertainty damages long-run investment

Principles for Inclusive and Sustainable Growth: Long-run

- Institutional architecture to mitigate policy Attention Deficit Disorder. Increases uncertainty & damages long-run investment
- **Structural Policies: Building Flexible markets**
  - Competition policy in an age of superstar firms
  - Deepening EU g Single Market
  - Reforming Labor Market Regulation

Principles for Inclusive and Sustainable Growth: Long-run

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- **Structural Policies: Building Flexible markets**
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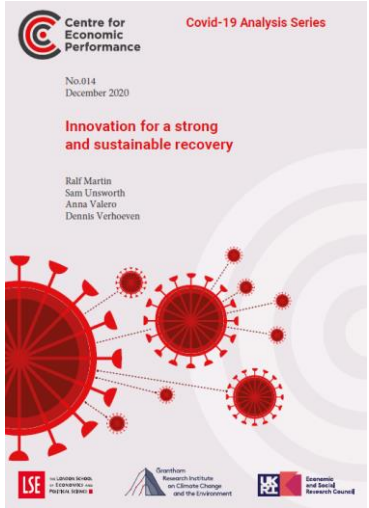
  - Completing Single Market
  - Reforming Labor Market Regulation
- **Human capital**
  - Training (managerial and workers); modern industrial policy; University Reform



Principles for Inclusive and Sustainable Growth: Long-run

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- **Human capital**
  - Training (managerial and workers); modern industrial policy; University Reform
- **Innovation Policies**
  - Base policies on What Works (“Lightbulb Table”)

Innovation Policies: Cost-Benefit Analysis

1. Quality of Evidence
2. Conclusiveness of evidence
3. How quickly can we get results
4. Inequality (people and places)

Journal of Economic Perspectives—Volume 33, Number 3—Summer 2019—Pages 163–184

A Toolkit of Policies to Promote Innovation

Nicholas Bloom, John Van Reenen, and Heidi Williams

The US economy has experienced a slowdown in productivity growth since the 1970s, which—except for an upward blip between 1996 and 2004—has been remarkably persistent. Other developed countries have also experienced this disappointing productivity trend. Moreover, slow productivity growth has been accompanied by disappointing real wage growth for most US workers, as well as rising wage inequality.

Innovation is the only way for the most developed countries to secure sustainable long-run productivity growth. For nations farther from the technological frontier, catch-up growth is a viable option, but this cannot be the case for leading-edge economies such as the United States, Japan, and the nations of Western Europe. For countries such as these, what are the most effective policies for stimulating technological innovation?

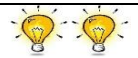
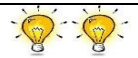
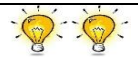
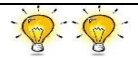
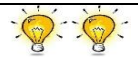
In this article, we take a practical approach to addressing this question. If a policymaker came to us with a fixed budget of financial and political capital to invest in innovation policy, what would we advise? We discuss a number of the main innovation policy levers and describe the available evidence on their effectiveness: tax policies to favor research and development, government research grants, policies aimed at increasing the supply of human capital focused on innovation, intellectual

■ *Nicholas Bloom is William D. Eberle Professor of Economics, Stanford University, Stanford, California. John Van Reenen is Gordon Y. Billard Professor in Management and Economics, Massachusetts Institute of Technology, Cambridge, Massachusetts. Heidi Williams is Professor of Economics, Stanford University, Stanford, California. All three authors are Research Associates, National Bureau of Economic Research, Cambridge, Massachusetts. Their email addresses are nbloom@stanford.edu, vanreene@mit.edu, and hlwill@stanford.edu.*

† For supplementary materials such as appendices, datasets, and author disclosure statements, see the article page at
https://doi.org/10.1257/jep.33.3.163

doi=10.1257/jep.33.3.163

We summarize evidence in a Policy "Lightbulb" Table

(1) Policy	(2) Quality of evidence	(3) Conclusiveness of evidence	(4) Benefit - Cost	(5) Time frame:	(6) Effect on inequality
Direct R&D Grants	Medium	Medium		Medium-Run	↑
R&D tax credits	High	High		Short-Run	↑
Patent Box	Medium	Medium	Negative	n/a	↑
Skilled Immigration	High	High		Short to Medium-Run	↓
Universities: incentives	Medium	Low		Medium-Run	↑
Universities: STEM Supply	Medium	Medium		Long-Run	↓
Exposure Policies	Medium	Low		Long-run	↓
Trade and competition	High	Medium		Medium-Run	↑
Grand Innovation Challenge	Low	Low		Medium-Run	↓

Source: Bloom, Van Reenen and Williams (2019)

Successful Innovation Policies

- **R&D tax credits**
- Direct government grants
- Human capital supply
  - Expanding STEM workforce
  - Universities
  - Immigration
  - “Lost Einsteins” (Bell et al, 2019)
- Competition and trade policy

Successful Innovation Policies

- R&D tax credits
- **Direct government grants (in theory, can be targeted better than tax incentives).** Examples:
  - Health (Azoulay et al ‘19); Energy (Howell, ’17); Defense (Moretti et al ’20; Howell et al, ‘21)
  - Overall positive crowd-in of private by public R&D
- Human capital supply
- Competition and trade policy

Successful Innovation Policies

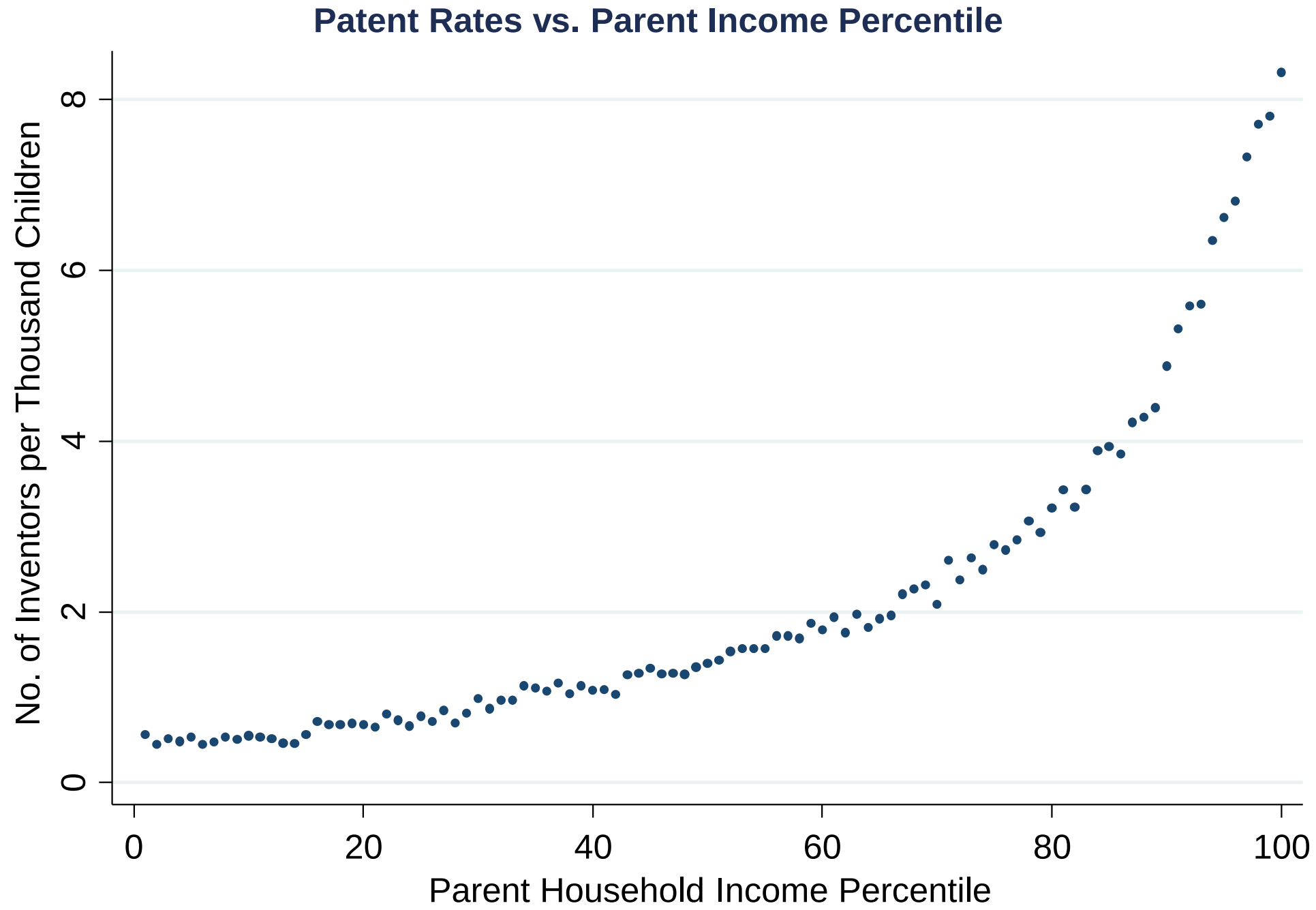
- R&D tax credits
- Direct government grants
- **Human capital supply**
  - Problem with tax and grants is that they subsidize *demand*. If supply side inelastic, the effect is to just drive up price of R&D (scientist wages) rather than volume of R&D
  - Increasing human capital more effective: directly increases innovation and reduces cost of R&D (reduces inequality)
- Competition and trade policy

Successful Innovation Policies

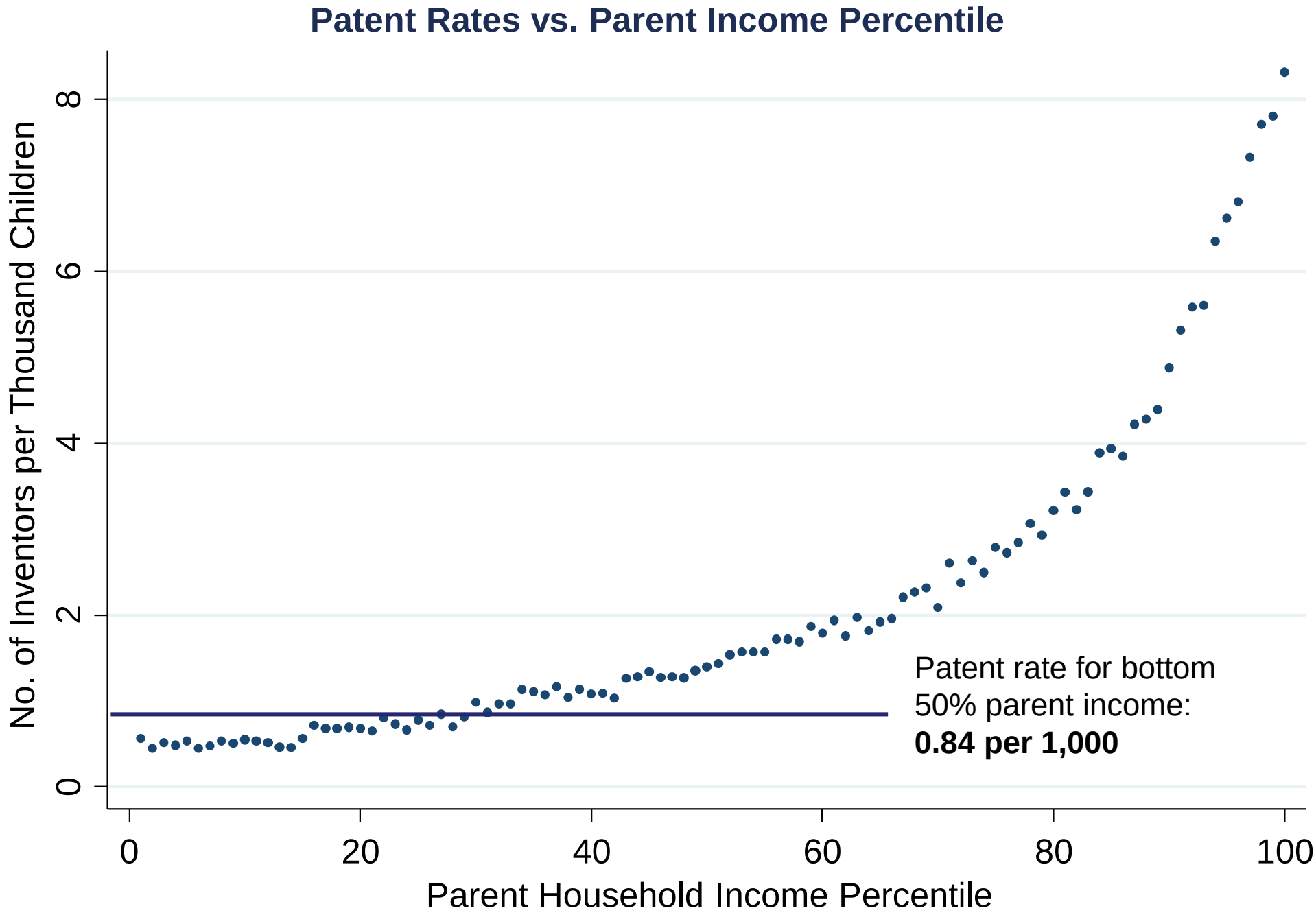
- R&D tax credits
- Direct government grants
- **Human capital supply**
  - Expanding STEM workforce
  - Universities
  - **Immigration:** Positive effects of immigrants on innovation. Can also be quickly increased, but politics hard.
  - “Lost Einsteins”
- Competition and trade policy

Successful Innovation Policies

- R&D tax credits
- Direct government grants
- **Human capital supply**
  - Expanding STEM workforce
  - Universities
  - Immigration
  - **“Lost Einsteins”:** under-representation of women, minorities and kids from low income families in inventor pool represents a major loss of talent (Bell et al, 2019)
- Competition and trade policy



Note: Sample of children is 1980-84 birth cohorts. Parent Income is mean household income from 1996-2000.



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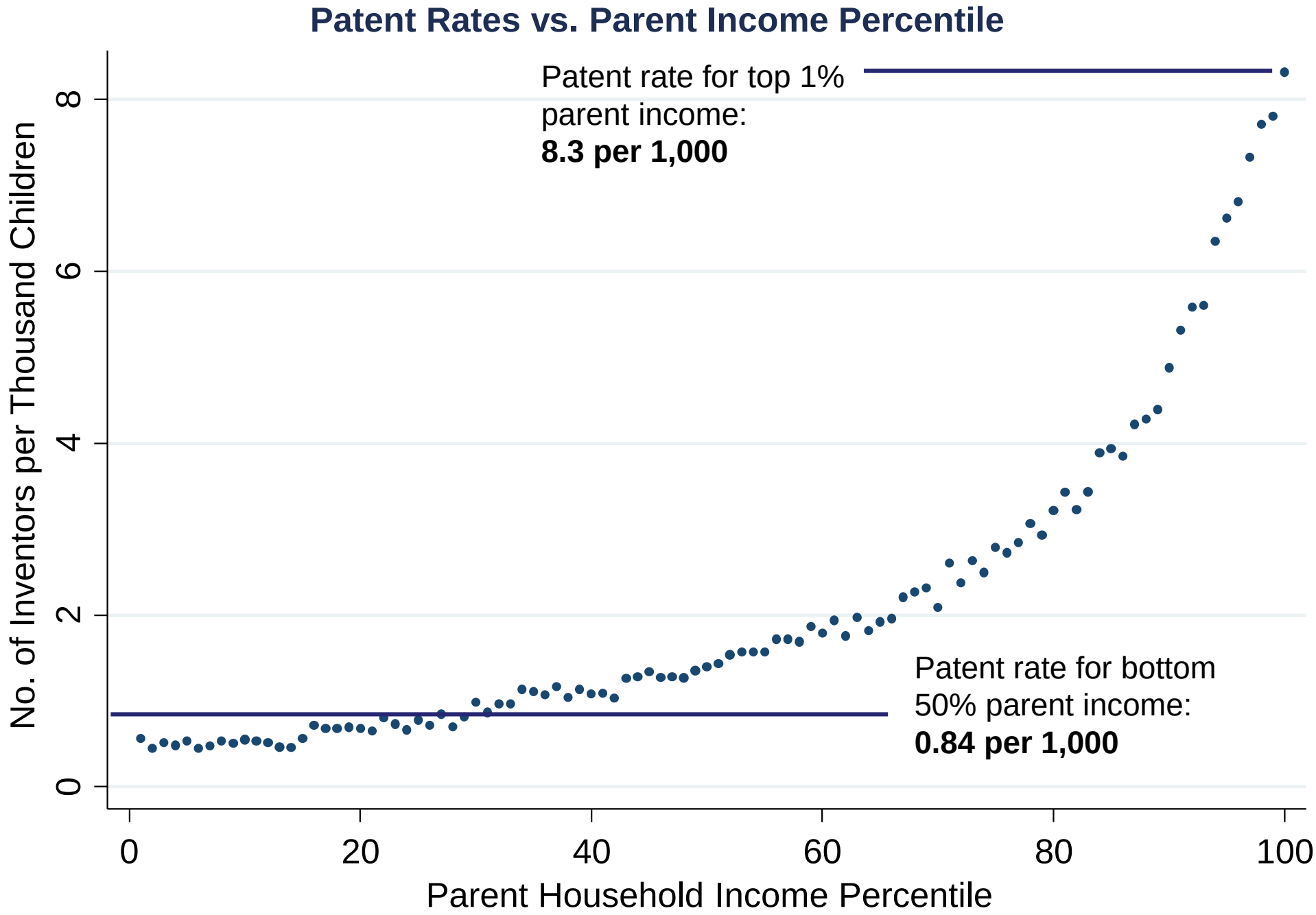
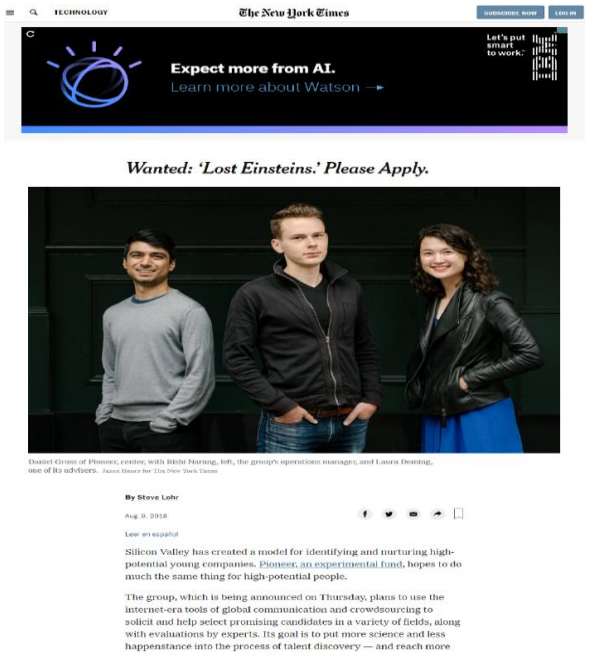
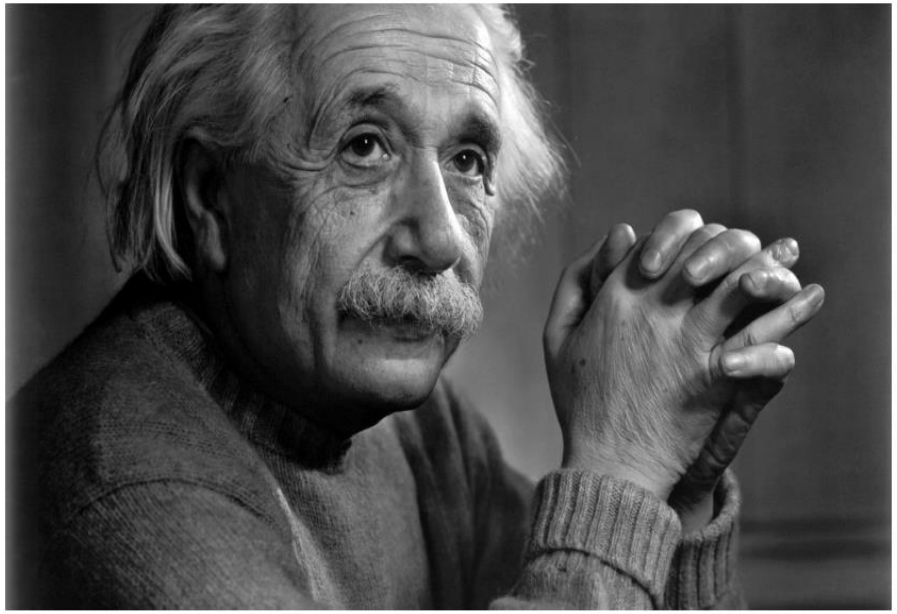


Notes: Sample of children is 1980-84 birth cohorts. Parent Income is mean household income from 1996-2000.

Finding the “Lost Einsteins and Marie Curies”

- Major impediment to innovation is that supply of talented inventors held back by class, race and gender (e.g. schools in low income neighbourhoods, exposure to role models; networks and mentors, discrimination, etc.)
- Unlocking this hidden talent could quadruple innovation rate
- An example of policies that help growth and equity





Successful Innovation Policies

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- **Competition and trade policy**

Problems with Innovation toolkit approach

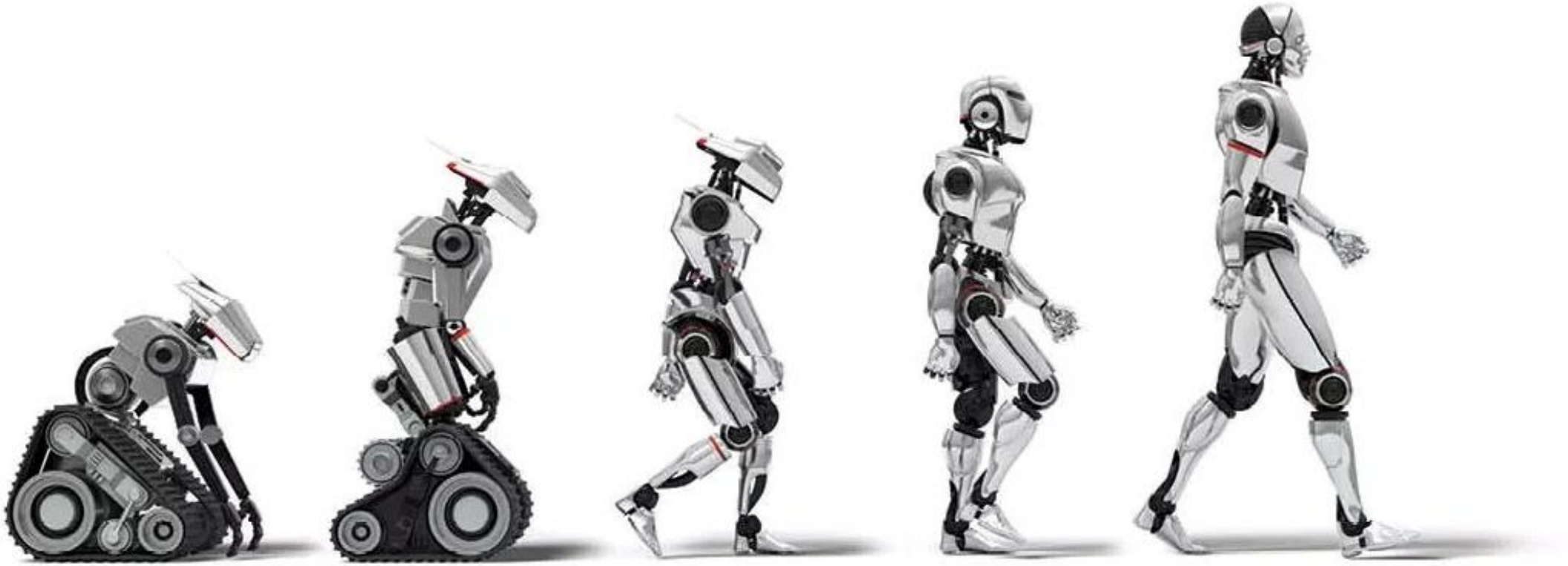
- Harder to take all equilibrium interactions into account
  - Aggregation across sub-national regions and industries
  - So combine well-identified moments from micro data with macro model

- Maybe an argument for a mission-driven program
  - Van Reenen (2020) Hamilton Policy Proposal for $100bn p.a. US “Grand Innovation Challenge”
    - Biden 2021 Infrastructure Bill has ~$500bn over 8 years for new technology
  - Aghion et al (2020) EU BARDA

Final Thoughts: Is Growth Plan politically feasible?

- The world has severe productivity growth problem, particularly after Global Financial Crisis
- Events causing major damage (e.g. COVID and Brexit) can shock society into making radical changes (e.g. WWII)
- Cross political party consensus on:
  - Need for investment in innovation
  - Important role of the state in rebuilding economy
- We can learn from social science what policies do (and do not) work in helping restore growth
- Time to move from words to action to help create sustainable and equitable growth

THANKS!



Some Further Reading (and viewing)

"Innovation Policies to Boost Productivity" (2020) Hamilton Policy Proposal 2020-13 https://www.hamiltonproject.org/assets/files/JVR_PP_LO_6.15_FINAL.pdf webinar

"A Toolkit of Policies to promote Innovation" (Nick Bloom, Heidi Williams and John Van Reenen), *Journal of Economic Perspectives (2019)* 33(3) 163–184 http://cep.lse.ac.uk/pubs/download/dp1634.pdf

"Why Do We Undervalue Competent Management" (Raffaella Sadun, Nick Bloom and John Van Reenen) *Harvard Business Review* (2017), September-October

"The new empirical economics of management" (Nick Bloom, Renata Lemos, Raffaella Sadun, Daniella Scur and John Van Reenen), *Journal of the European Economic Association* (2014) 12: 835–76,

"Measuring and Explaining Management practices across firms and nations" (Nick Bloom and John Van Reenen) *Quarterly Journal of Economics* (2007) 122(4), 1351–1408.

"The Costs and Benefits of Brexit" (Swati Dhingra, Hanwei Huang, Gianmarco Ottaviani, Joao Pessoa, Tom Sampson and John Van Reenen) *Economic Policy* (2017), 32(92) 651–705 Vox

"Who Becomes an Inventor in America? The Importance of Exposure to Innovation" (Alex Bell, Raj Chetty, Xavier Jaravel, Neviana Petkova and John Van Reenen), http://cep.lse.ac.uk/pubs/download/dp1519.pdf Data *Quarterly Journal of Economics* (2019)134(2) 647–713, New York Times Vox Atlantic Fortune Conversation VoxUS Economist VC Centrepiece INET

COVID-19: "A major wave of UK business closures by April 2021? The scale of the problem and what can be done." (Peter Lambert and John Van Reenen) 2021 CEP COVID analysis https://cep.lse.ac.uk/_NEW/PUBLICATIONS/abstract.asp?index=7711 IGA Radio Carona MIT Technology Review

Further reading

- “The World Management Survey at 18” (Bloom, Lemos, Sadun, Scur & Van Reenen, 2021), Oxford Review of Economic Policy https://poid.lse.ac.uk/textonly/publications/downloads/poidwp002.pdf
- World Management Survey http://worldmanagementsurvey.org/
- “Increasing Difference Between Firms” *Changing Market Structures and Implications for Monetary Policy*, Jackson Hole Symposium (Van Reenen, 2018) 19-65 http://cep.lse.ac.uk/pubs/download/dp1576.pdf NYT NPR
- LSE Growth Commission Final Report (Aghion et al, 2013)

http://www.lse.ac.uk/researchAndExpertise/units/growthCommission/documents/pdf/GCReportSummary.pdf

- “Management as a Technology” (Bloom, Sadun and Van Reenen, 2020): http://mitsloan.mit.edu/shared/ods/documents/?DocumentID=2685

Defending Growth

1. “Capitalists get all the benefits of growth, not workers”
2. “Faster growth means more inequality”
3. “Growth is inevitably bad for the environment”
4. “Growth doesn’t make us any happier”
5. **“There’s nothing we can do to improve the growth rate”** (Growth pessimism as the “new normal”**)**

Defending Growth

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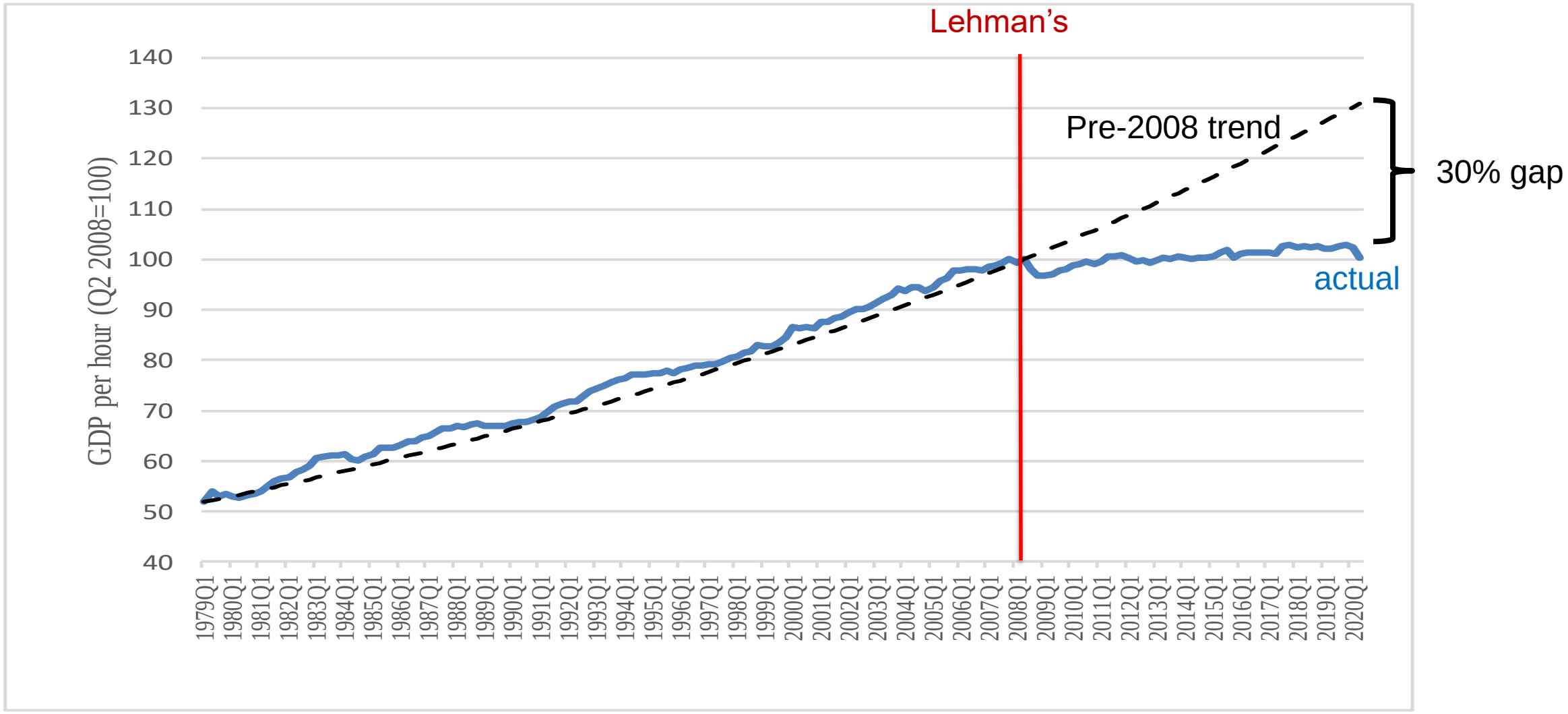
5. **“There’s nothing we can do to improve the growth rate”** (Growth pessimism as the “new normal”**)**
   - Traditional economics vs. modern growth theory
   - **UK experience:** after a century of relative decline UK GDP per capita caught up with peers in US, Germany and France for 30 years leading up Global Financial Crisis (1979-2008)

Philippe Aghion

Robert Gordon

It could be worse? UK Productivity (GDP per hour) 1979-2020

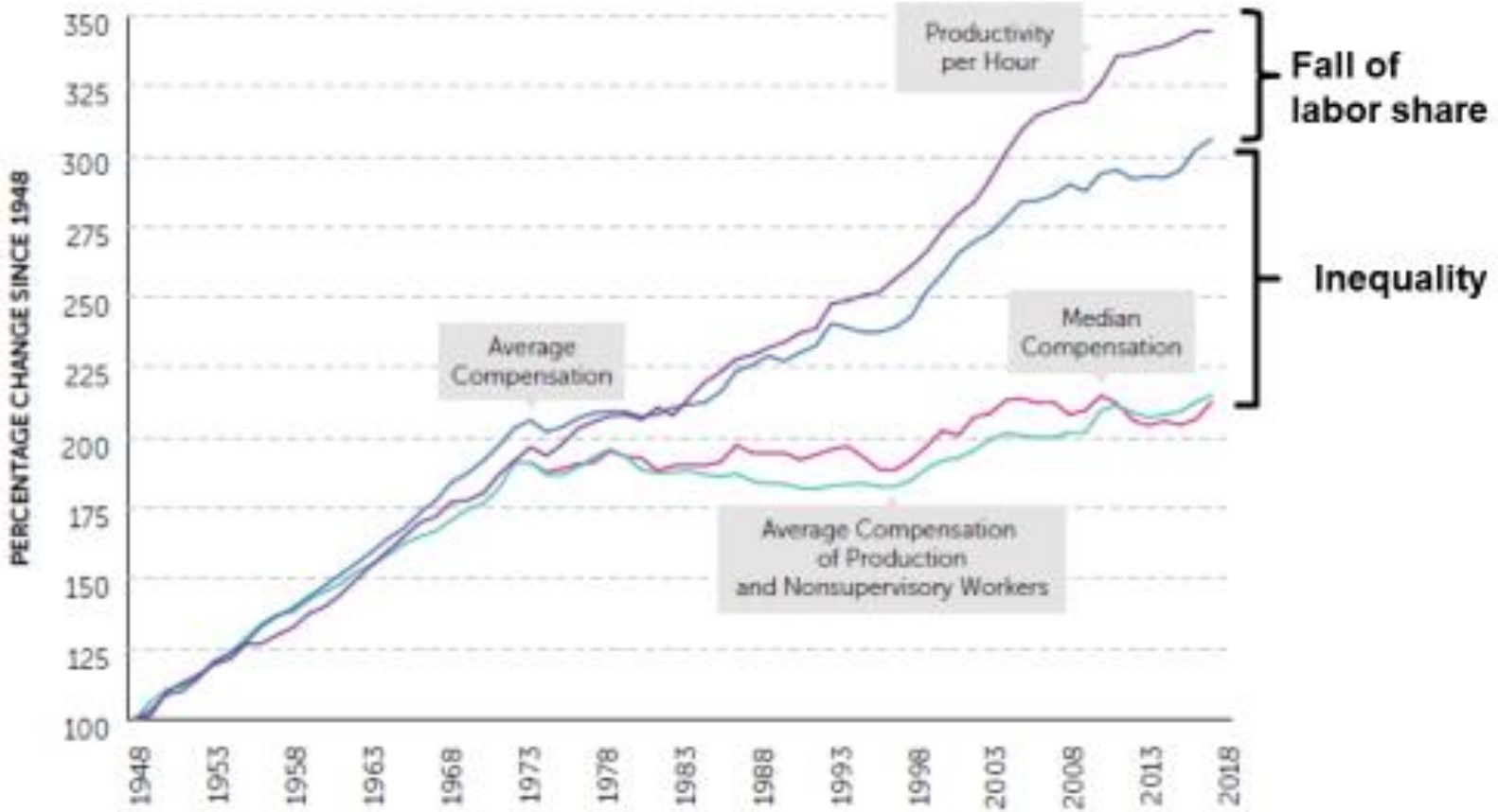


Notes: Whole Economy GDP per hour, seasonally adjusted. *ONS Statistical Bulletin*, Labour Productivity Q2 2020, release 4/11/2020 (Q2 2008=100). Predicted value after Q2 2008 is the dashed line assuming a historical average growth rate of 2.2%.

We summarize evidence in a Management "Spanner" Table

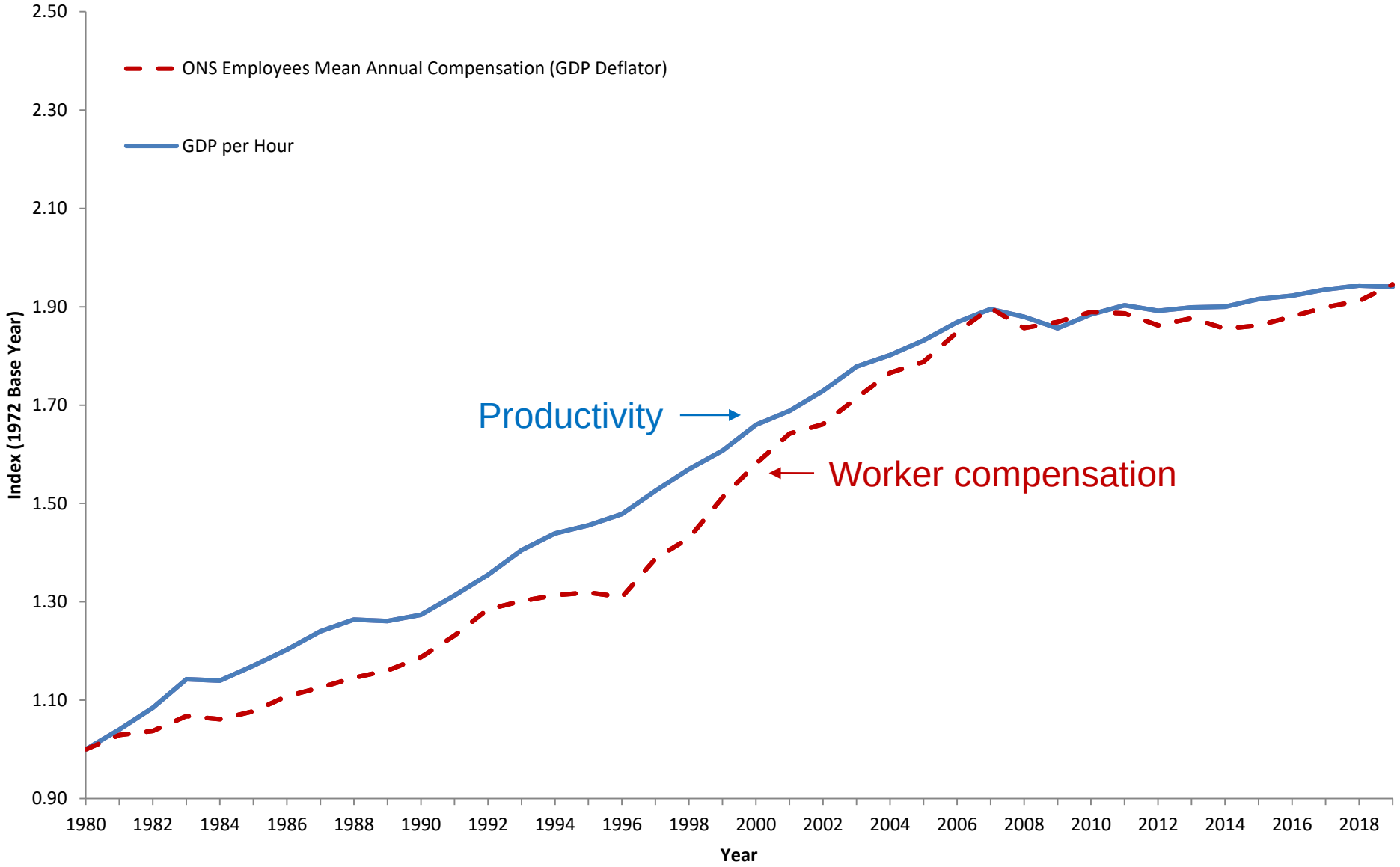
Policy type	Strength of evidence	Policy Net benefit (out of 5)	Difficulty of implementation	Time frame
Structural				
Competition	H		M	medium
Trade and FDI	H		L	medium
Education	M		M	long
Labour Deregulation	M		L	medium
Governance	M		M/L	long
Direct				
Training - consulting	H		H	short
Training - formal classroom	M		H	medium
Information/benchmarking	L/M		H	medium

UK is different from the US where worker average wages has lagged behind productivity (fall in labour share)



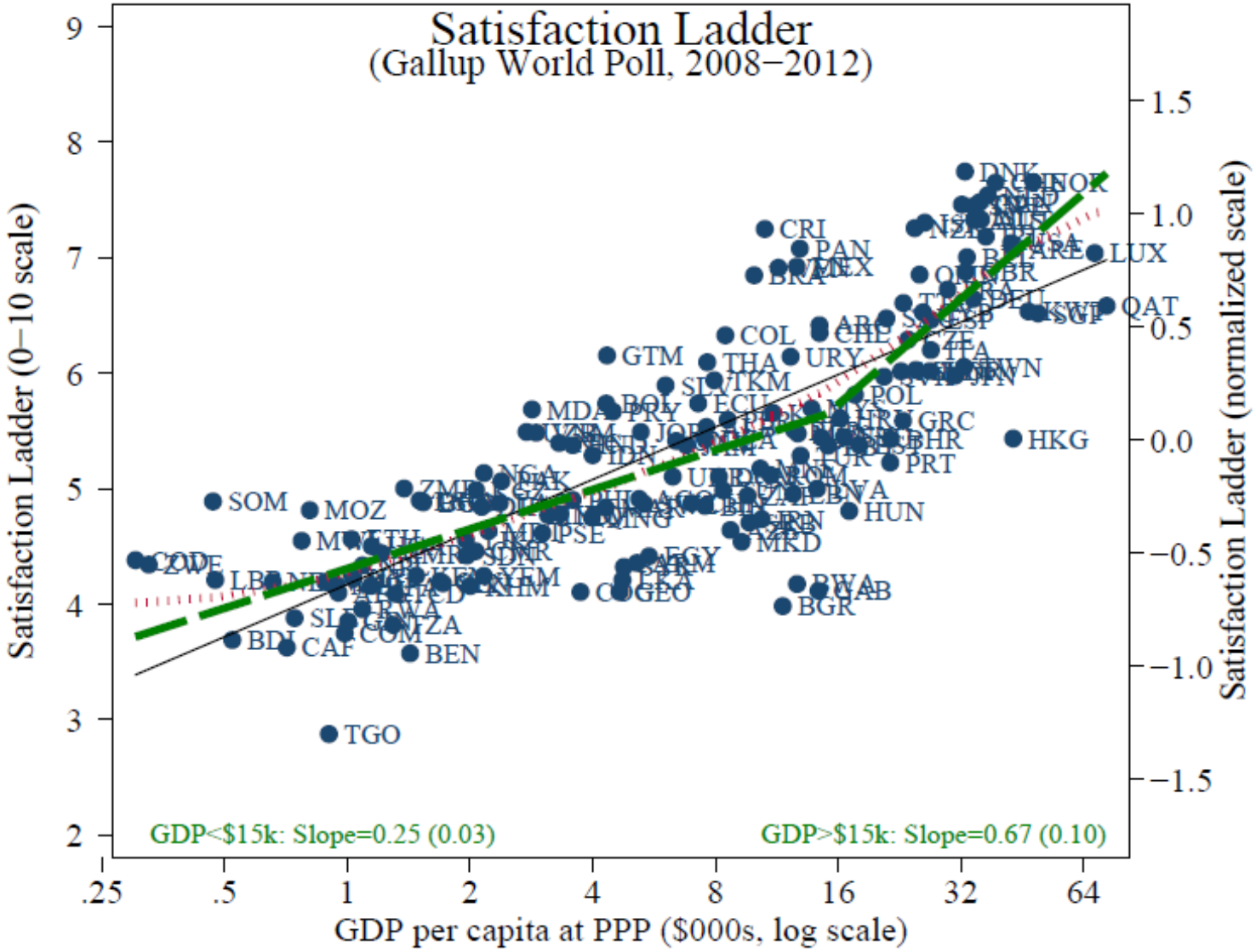
Source: *MIT Work of the Future Final Report (2020). Productivity is total economy real output per hour. Average compensation is total economy real compensation per hour, deflated by CPI-U-RS.*

UK Worker Average Compensation tracks UK Labour Productivity



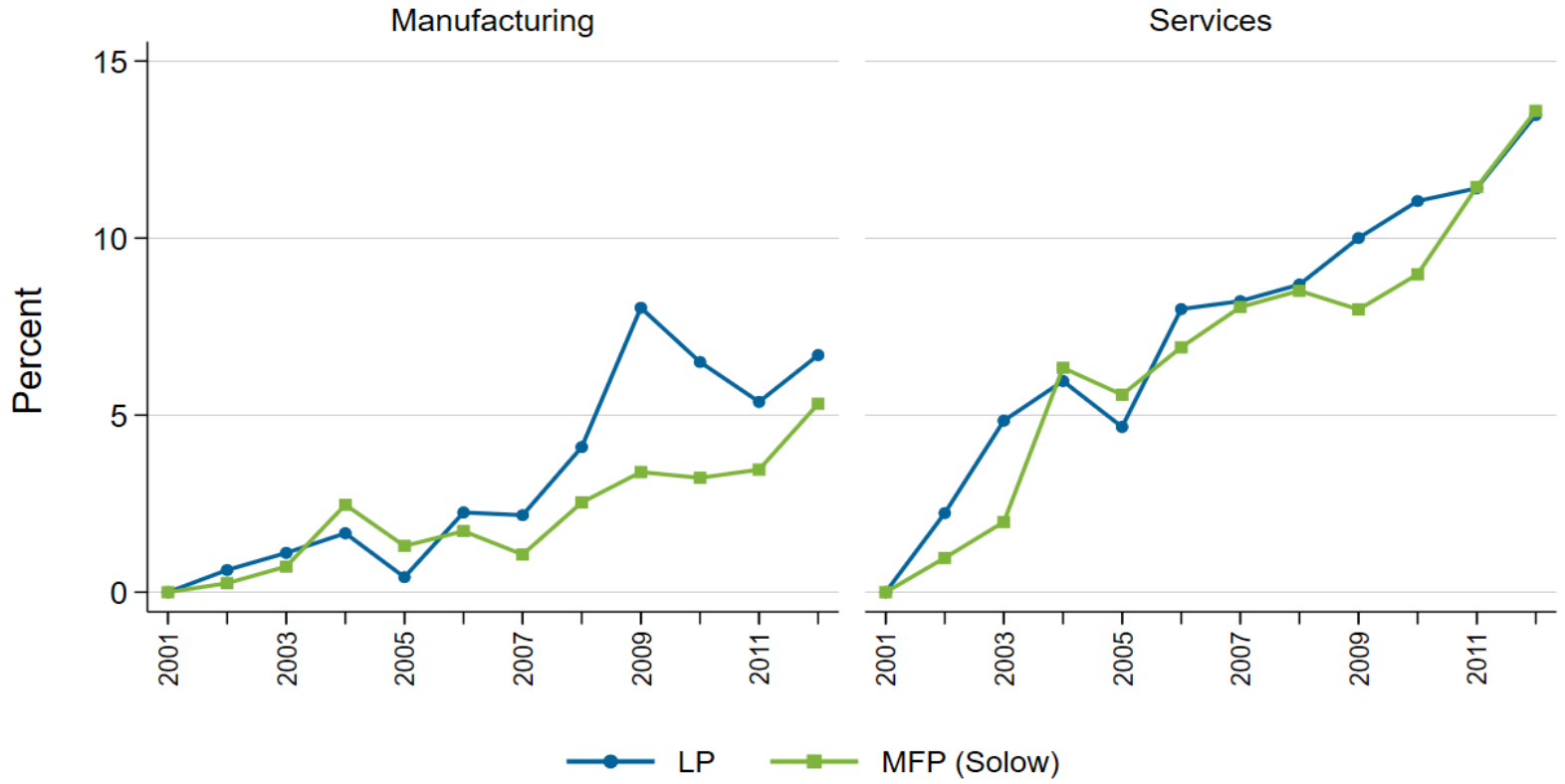
Source: ONS (2021); Series both based at 1 in 1980, both compensation and productivity approximately doubled over the four decades

Maybe money doesn't buy happiness: but it makes misery easier to bear! People in richer countries more satisfied with lives



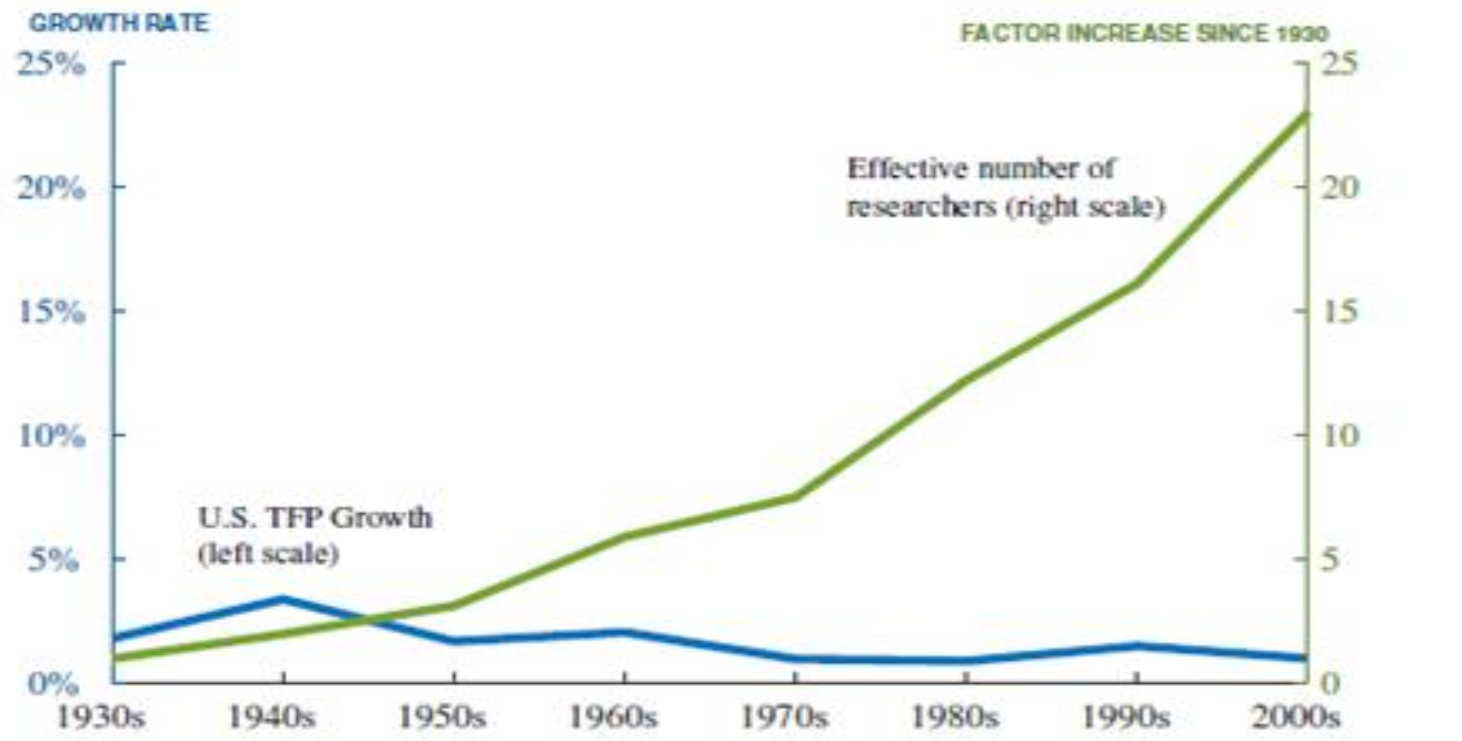
Source: Stevenson and Wolfers (2013, AER P&P)

Increasing productivity dispersion across firms 2001-2012 (pooled across 16 OECD countries)



Source: OECD Multiprod, https://www.oecd.org/sti/ind/multiprod.htm
Notes: Coefficients on year dummies from regression of 90-10 log(productivity) within an industry-year cell in 16 OECD countries (AUS, AUT, BEL, CHL, DEU, DNK, FIN, FRA, HUN, ITA, JPN, NLD, NOR, NZL, PRT, SWE)

A decline in the productivity of R&D – US, economy wide

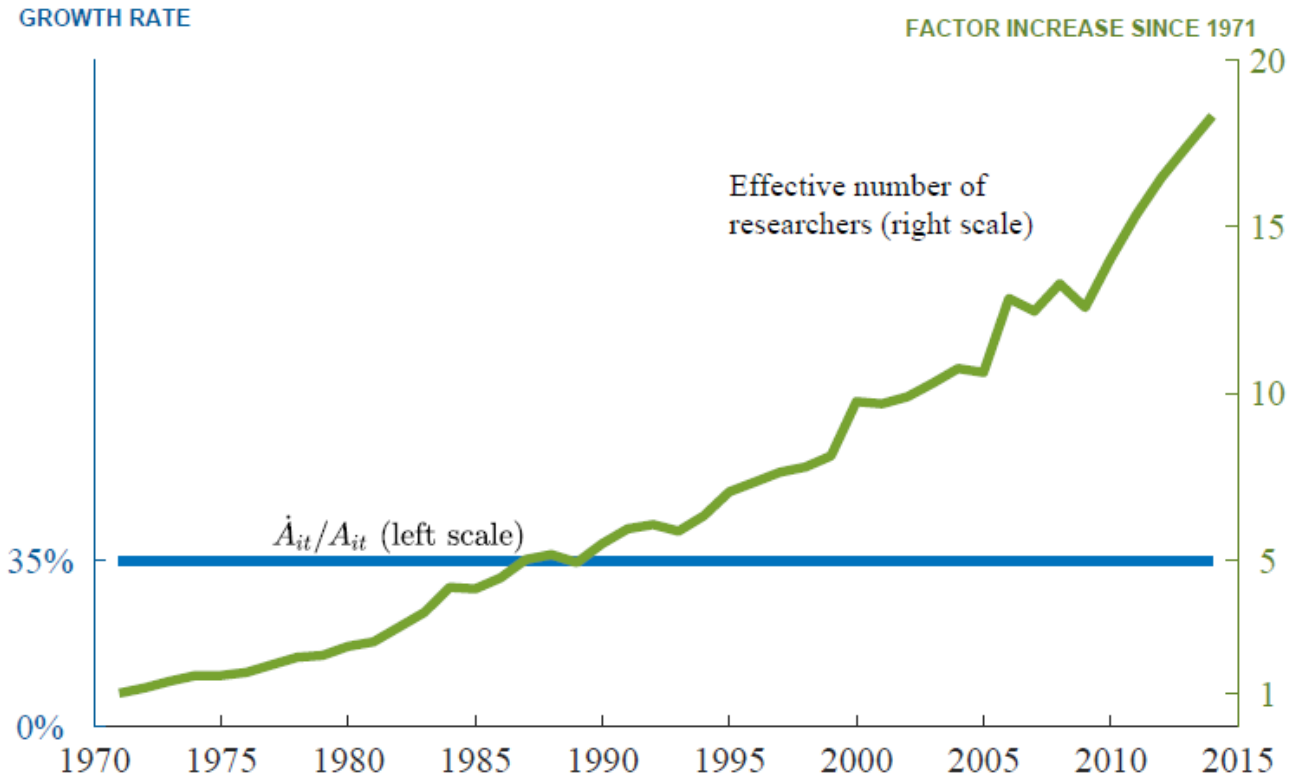


Note: The idea output measure is TFP growth, by decade (and for 2000-2014 for the latest observation). For the years since 1950, this measure is the Bureau of Labor Statistics (2017) Private Business Sector multifactor productivity growth series, adding back in the contributions from R&D and IPP. For the 1930s and 1940s, we use the measure from Robert J. Gordon (2016). The idea input measure — "Effective number of researchers" — is gross domestic investment in intellectual property products from the National Income and Product Accounts (Bureau of Economic Analysis, 2017), deflated by a measure of the nominal wage for high-skilled workers.

Source: Bloom, Jones, Van Reenen and Webb (2020, AER)

Stable 35% p.a growth in semiconductor productivity required 18x growth in # researchers

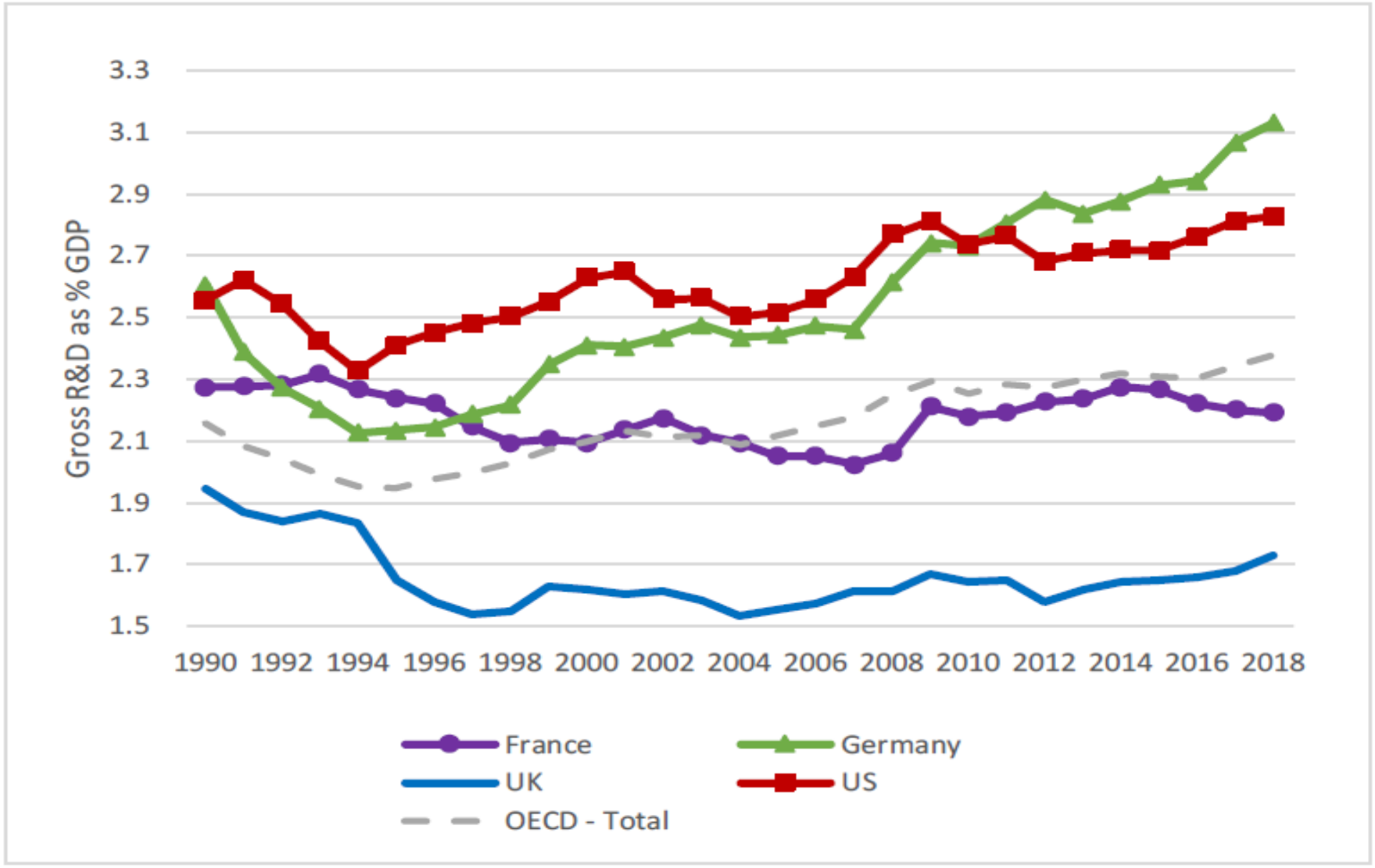
Figure 4: Data on Moore's Law



Note: The effective number of researchers is measured by deflating the nominal semiconductor R&D expenditures of key firms by the average wage of high-skilled workers. The R&D data includes research by Intel, Fairchild, National Semiconductor, Texas Instruments, Motorola, and more than two dozen other semiconductor firms and equipment manufacturers; see Table 1 for more details.

Source: Bloom, Jones, Van Reenen & Webb (2020, AER)

R&D as a fraction of GDP is low in the UK



MY FAVOURITE QUOTES:

The difficulties of defining ownership in Europe

Production Manager: “We’re owned by the Mafia”

Interviewer:

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Americans on geography

Interviewer: “How many production sites do you have abroad?

Manager in Indiana, US:

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Americans on geography

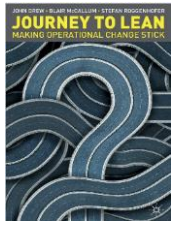
Interviewer: “How many production sites do you have abroad?

Manager in Indiana, US: “Well…we have one in Texas…”

WORLD MANAGEMENT SURVEY (WMS); BLOOM & VAN REENEN (2007)

1) Developing management questions

- Scorecard for 18 monitoring (e.g. lean), targets & people (e.g. pay, promotions, retention and hiring). ≈45 minute phone interview of manufacturing plant managers



2) Obtaining unbiased comparable responses (“Double-blind”)

- Interviewers do not know the company’s performance
- Managers are not informed (in advance) they are scored

3) Getting firms to participate in the interview

- Official Endorsement: Bundesbank, Bank of England, RBI, etc.
- Run by 200 MBA types (loud, assertive & business experience)