



Management and Productivity

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**WE ARE EXTREMELY GRATEFUL FOR THE SUPPORT
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WHY CARE ABOUT PRODUCTIVITY AND MANAGEMENT?

- **Despite the importance of productivity our understanding of what causes productivity differences is poor**
 - Even after controlling for human and physical capital, there is a large “unexplained residual” (TFP) in productivity both between countries and within countries
 - What are the reasons for long-standing “productivity gap” between the UK and its major comparator countries?
 - **Our approach:** what is the role of management practices?

Measuring management practice

Evaluating the management measure

Describing management across Firms and countries

Explaining management across Firms and countries

Policy Conclusions for Wales

ASSESSING MANAGEMENT PRACTICE

Scoring management practice

- Created a robust assessment tool to score management of operations, people and performance

Setting the sampling frame

- 4,500 medium sized* manufacturers across U.S., Asia and Europe
 - Medium sized as only interview 1-2 plants per firm
 - Manufacturing as productivity easier to measure

Obtaining unbiased responses

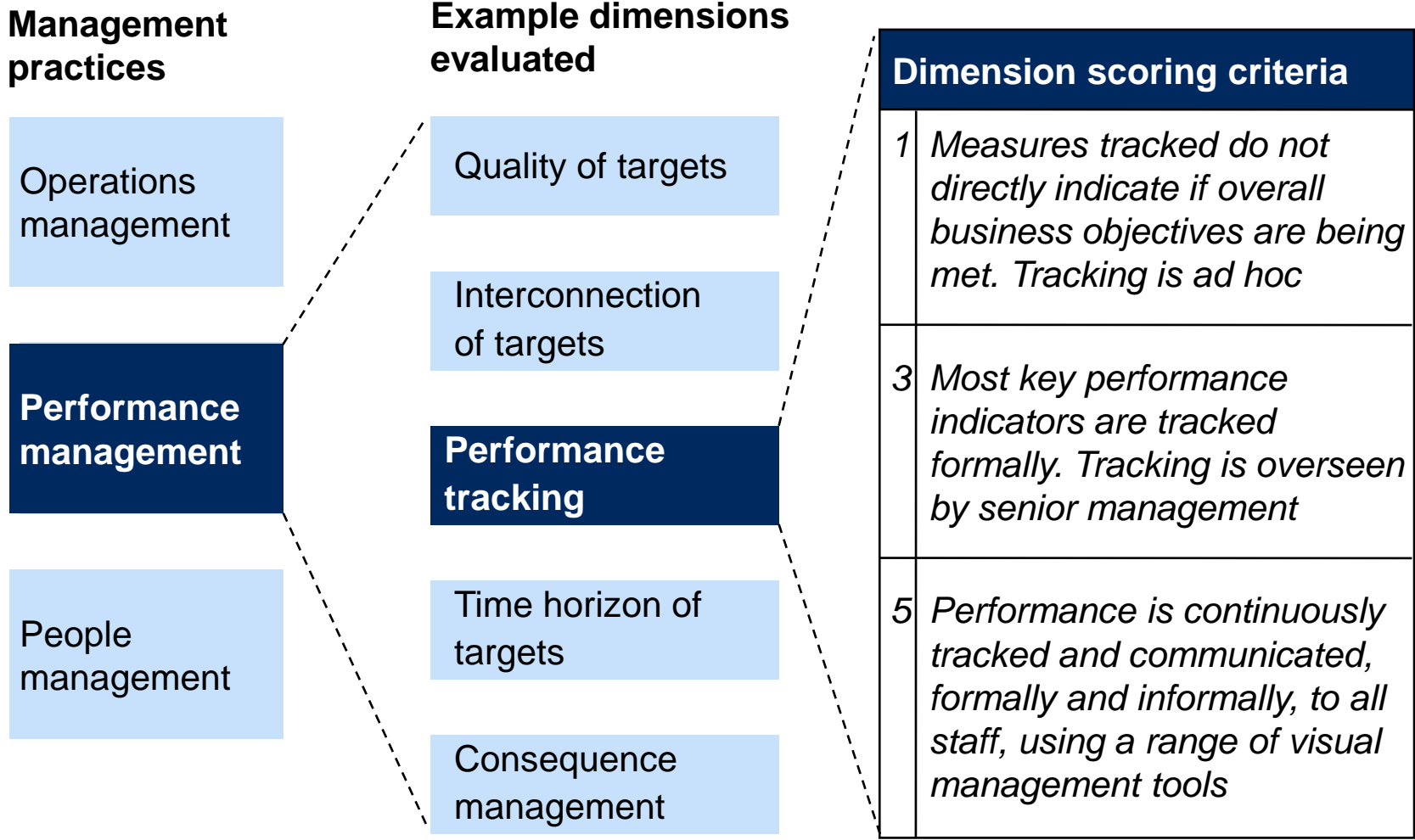
- Conducted 'Double-blind' interviews
 - Managers unaware of the scoring methodology
 - Interviewers unaware of corporate performance
- Executed by 45 MBA-trained interviewers with business experience

Getting firms to participate

- Obtained Central Bank, Ministry and Employer Association endorsements

* Median ~250 employees

TO SCORE COMPANIES, WE USED DESCRIPTIONS OF POOR, AVERAGE AND GOOD PRACTICE FOR EACH DIMENSION



Measuring management practice

Evaluating the management measure

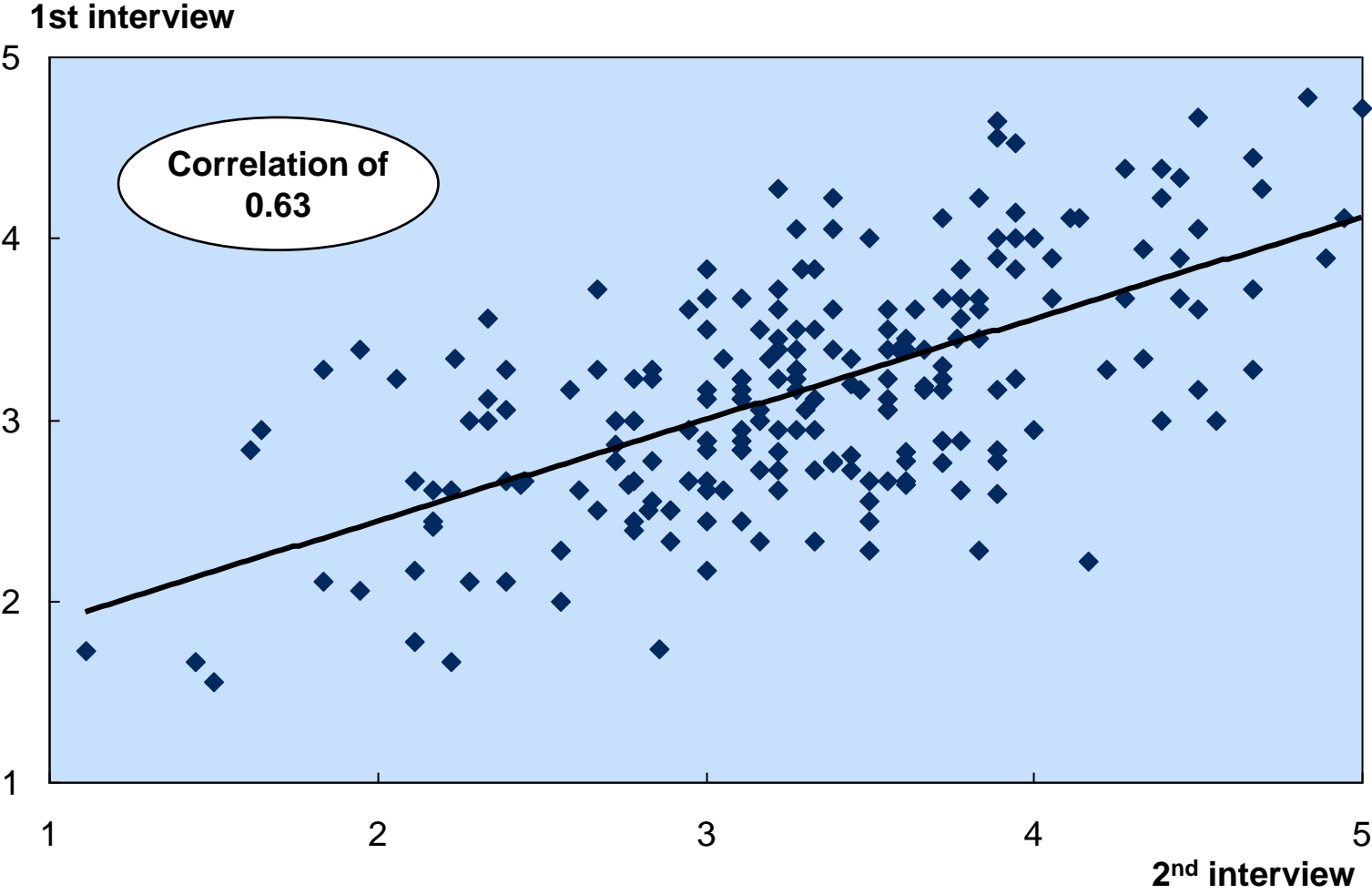
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INTERNAL VALIDATION SUGGESTS THAT OUR ASSESSED MANAGEMENT PRACTICE SCORE IS INFORMATIVE

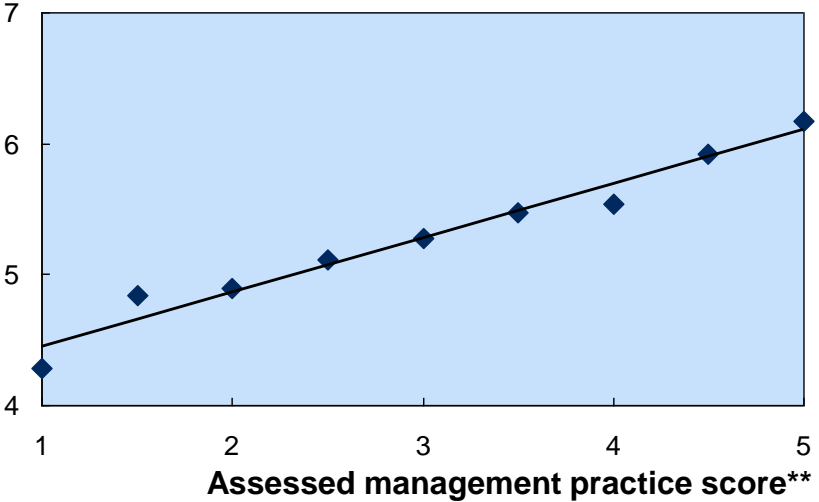
Assessed management practice score*



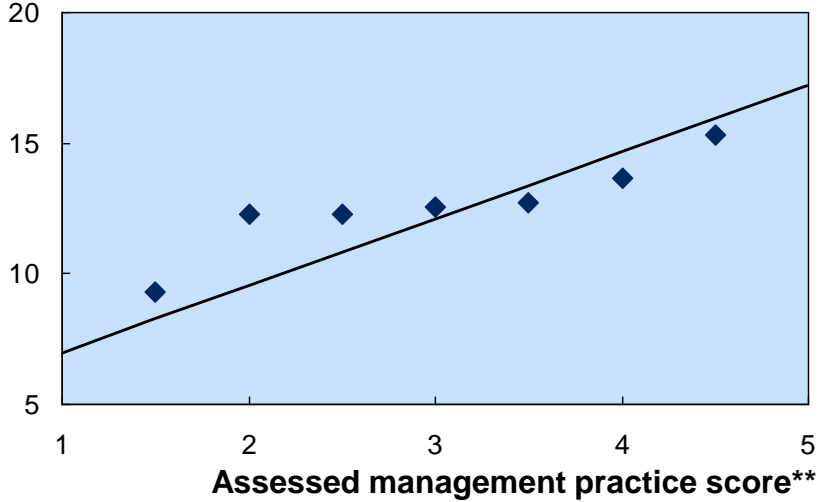
* 222 firms interviewed by 2 different interviewers, interviewing 2 different managers

THE ASSESSED MANAGEMENT PRACTICE SCORE CORRELATES WELL WITH A NUMBER OF FINANCIAL PERFORMANCE METRICS

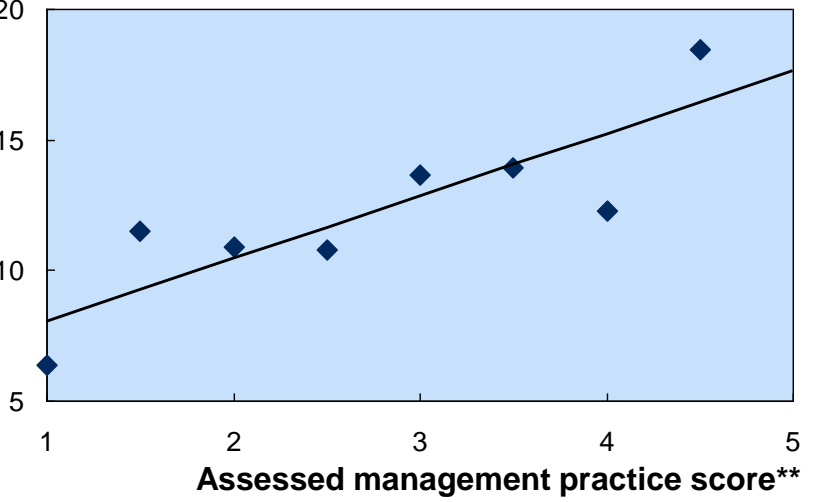
Labour productivity*



Sales growth (%)



Return On Capital Employed, ROCE (%)

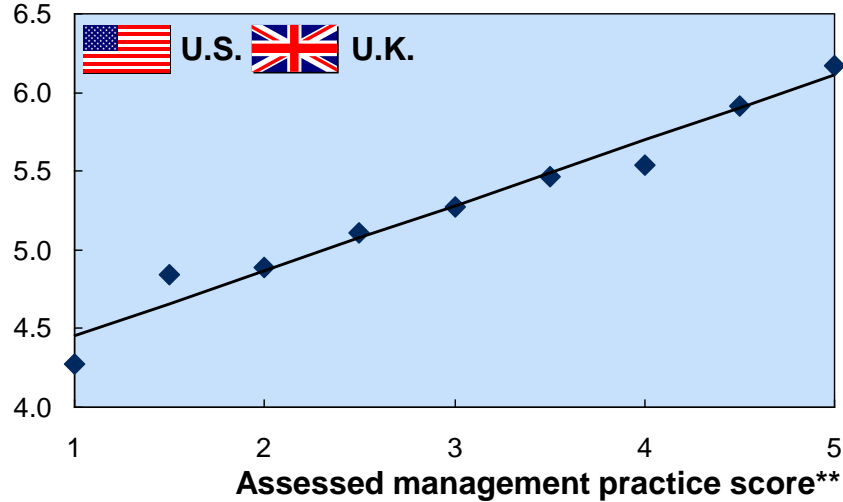


* Log scale

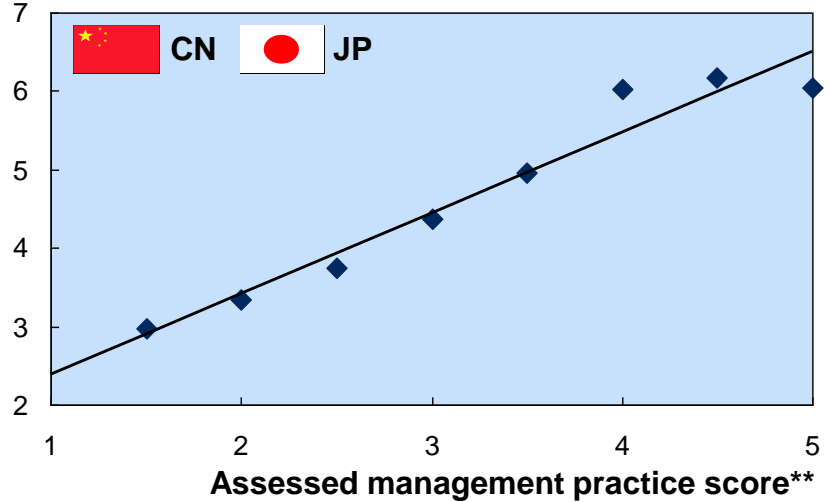
** Firms are grouped in 0.5 increments of assessed management score

THIS LINK HOLDS TRUE ACROSS DIFFERENT COUNTRIES AND CULTURES

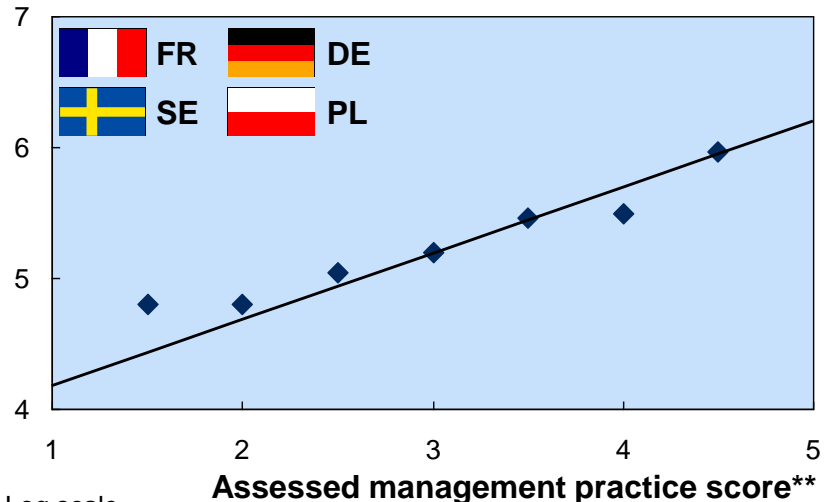
Labour productivity*



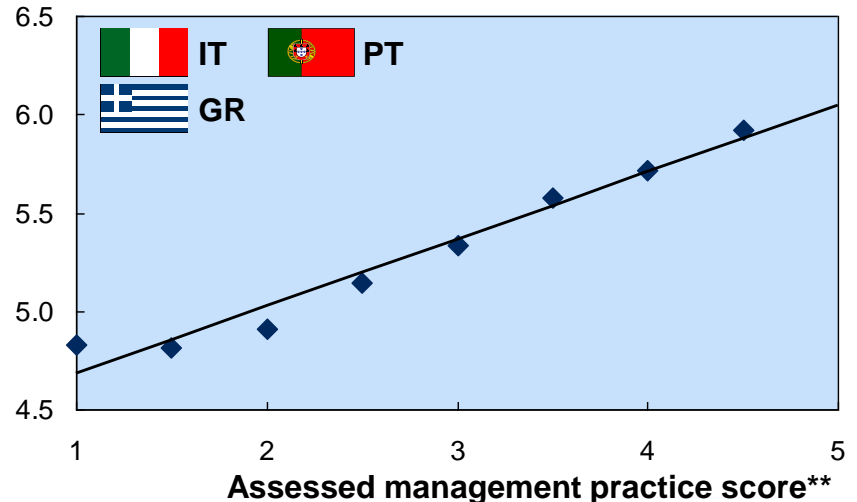
Labour productivity*



Labour productivity*



Labour productivity*



* Log scale

** Firms are grouped in 0.5 increments of assessed management score

AGENDA

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Evaluating the management measure

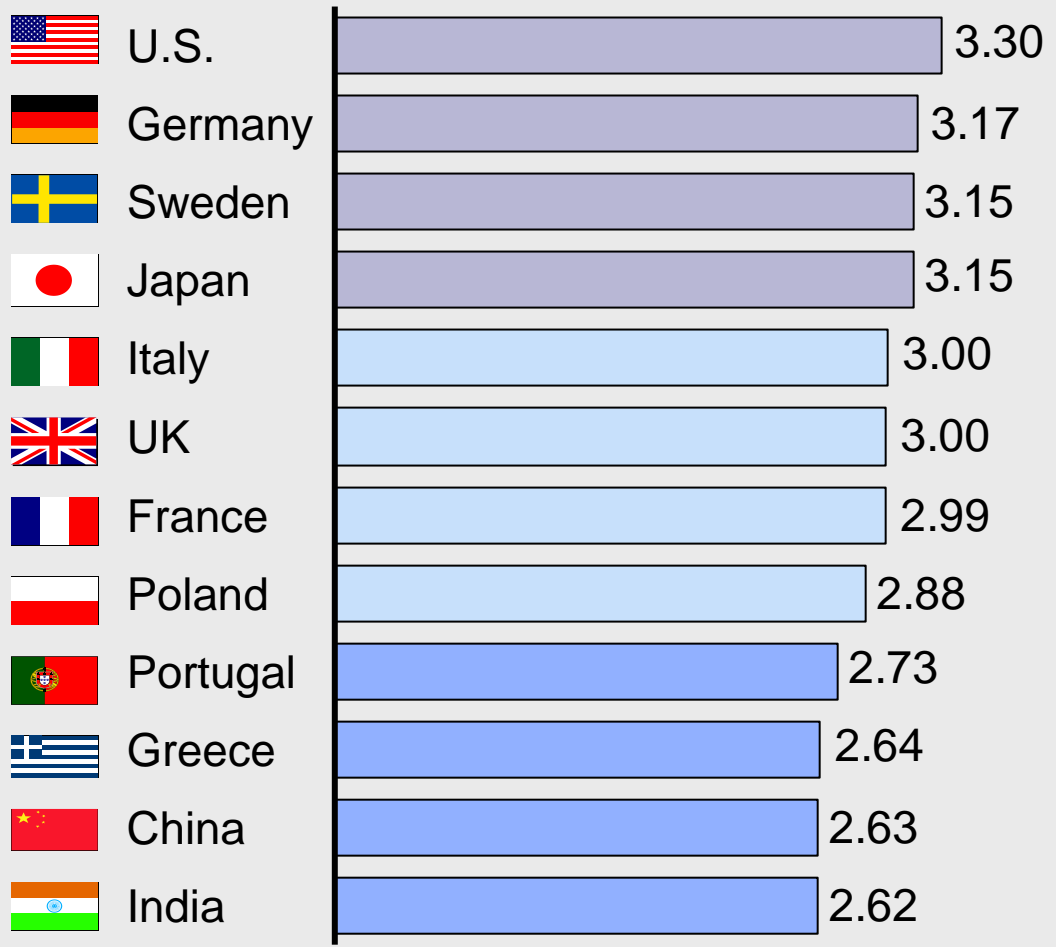
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THERE IS SUBSTANTIAL INTER-COUNTRY MANAGEMENT PRACTICE VARIABILITY

Assessed Management Practice Score – by country



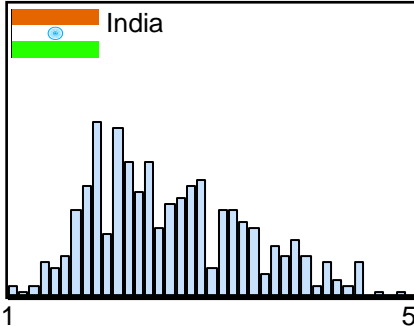
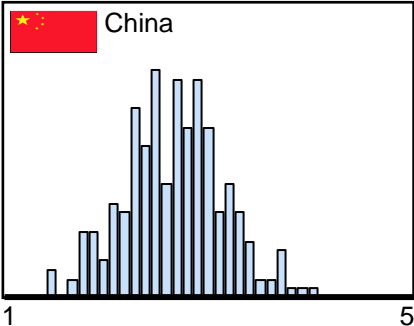
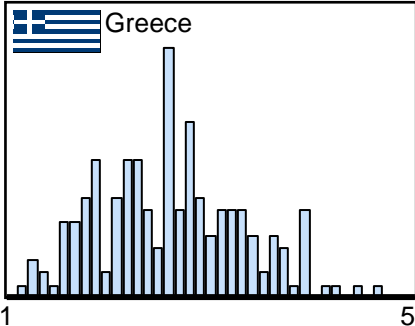
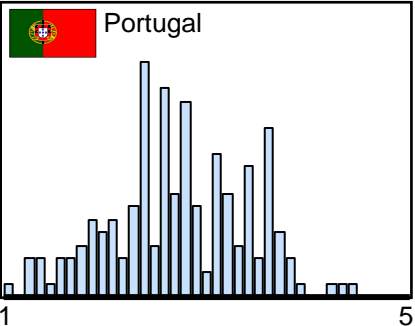
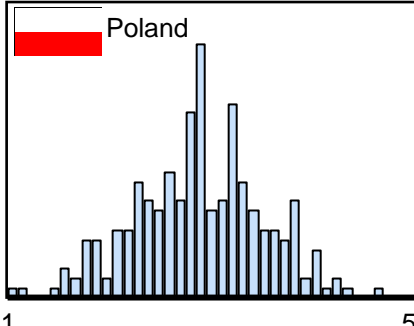
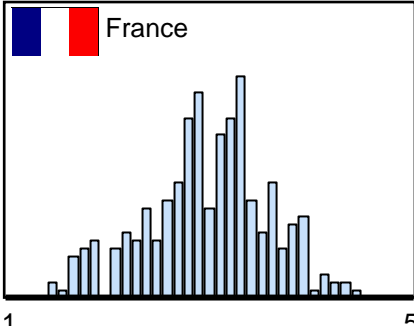
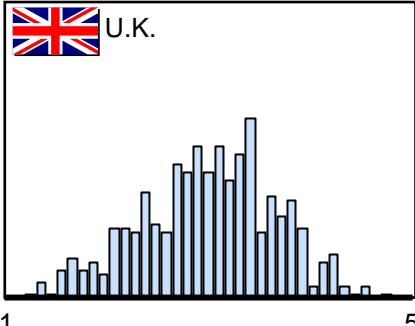
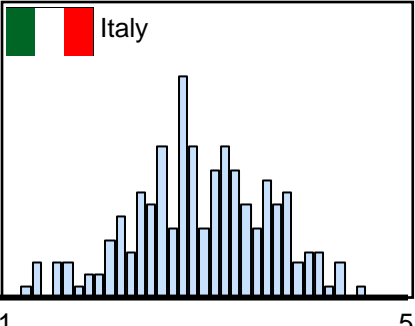
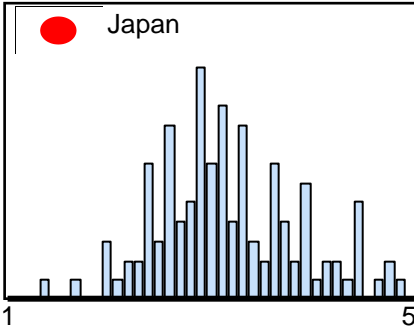
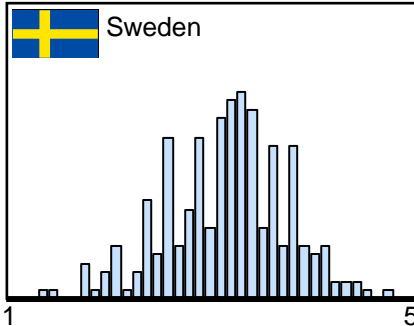
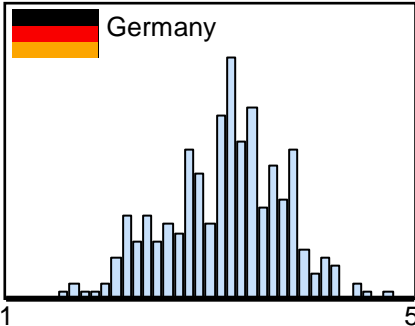
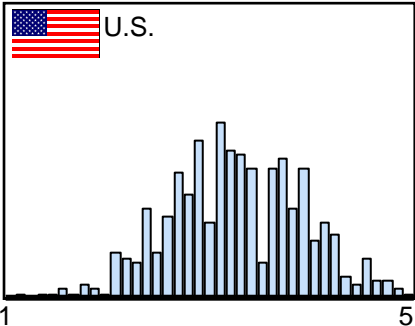
3 distinct groups appear

- U.S., Germany, Sweden and Japan
- Italy, U.K., France, and Poland
- Portugal, Greece, China and India

Source: Data collected from interviews as of Sept 24, 2007; team analysis

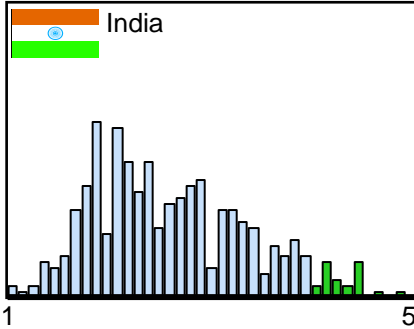
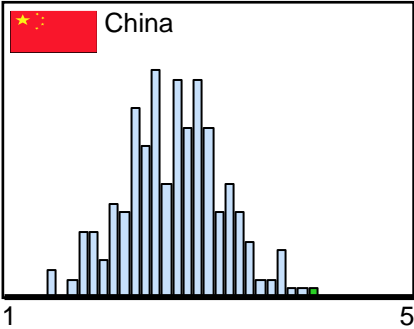
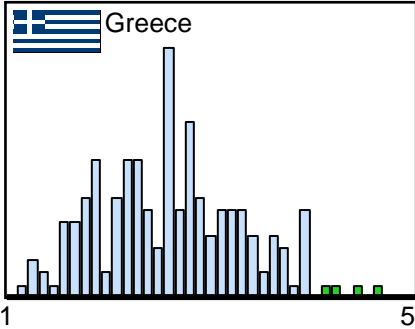
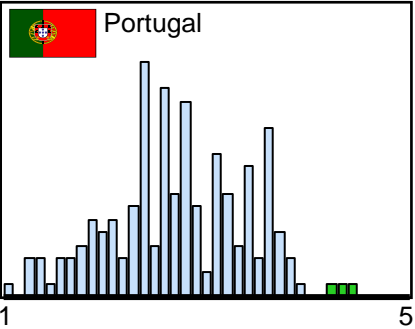
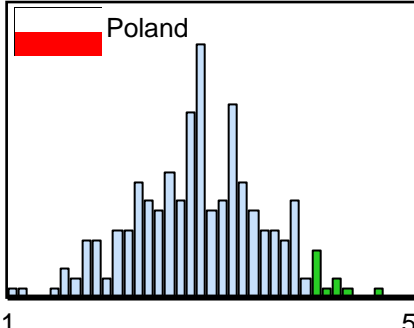
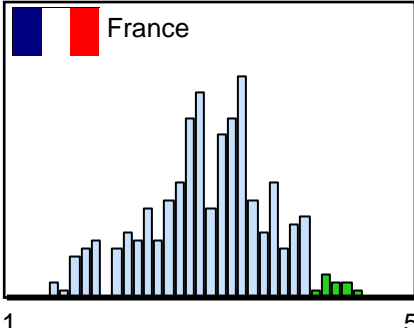
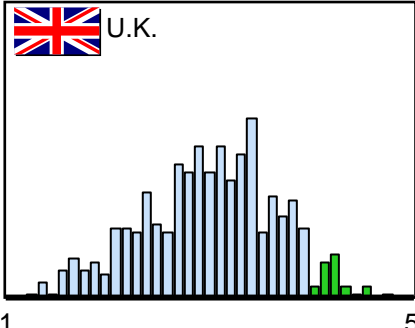
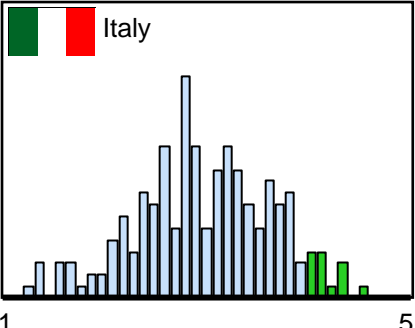
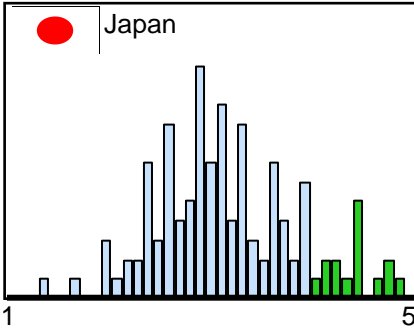
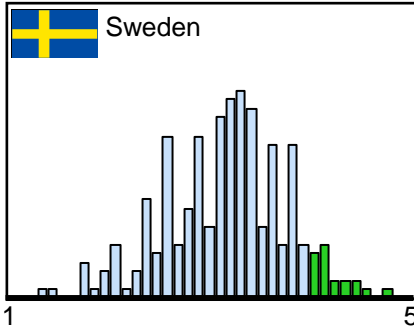
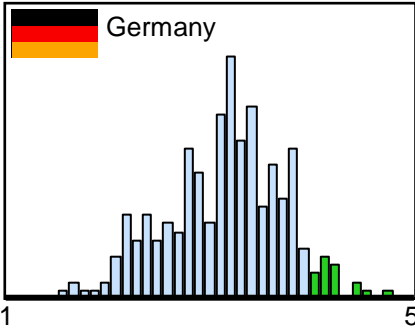
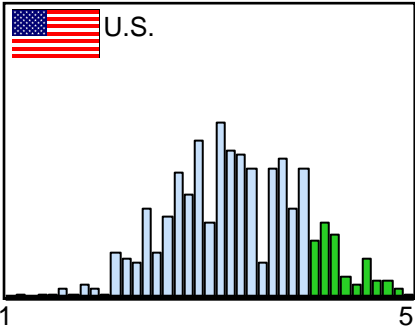
HOWEVER, MANAGEMENT PRACTICES VARY MUCH MORE WITHIN THAN ACROSS COUNTRIES

Distribution of firm level management practice scores – by country



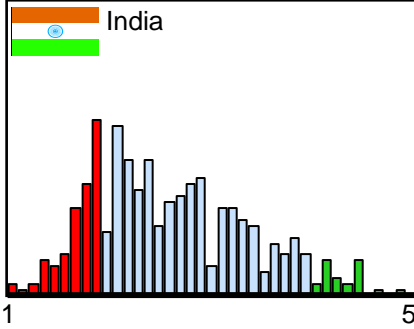
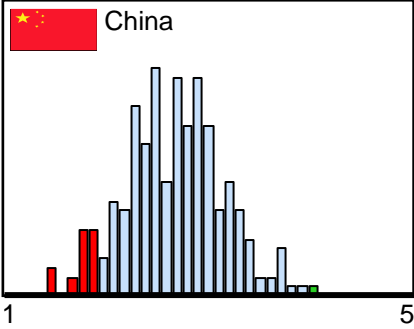
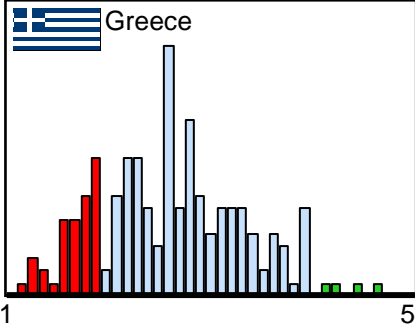
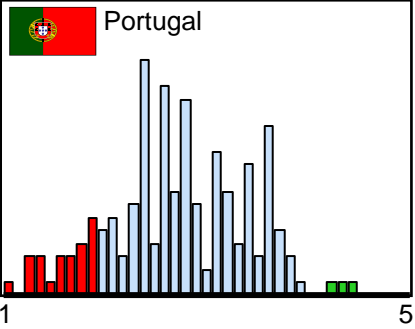
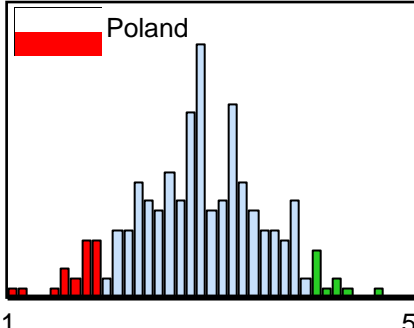
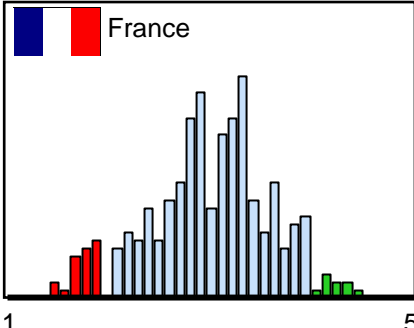
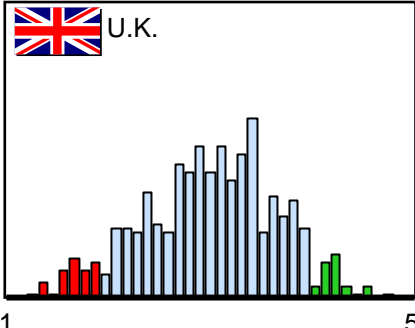
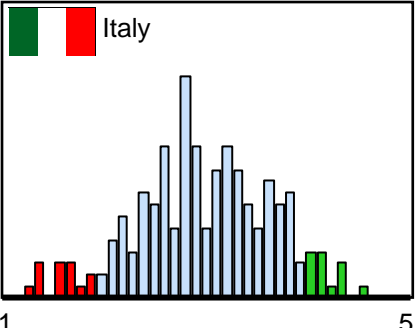
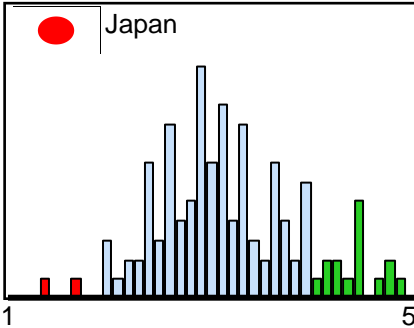
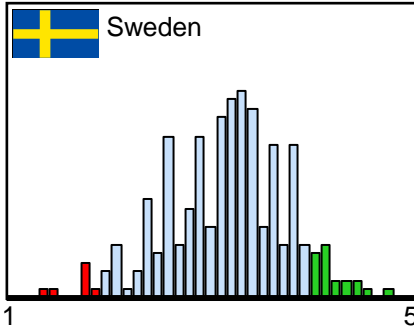
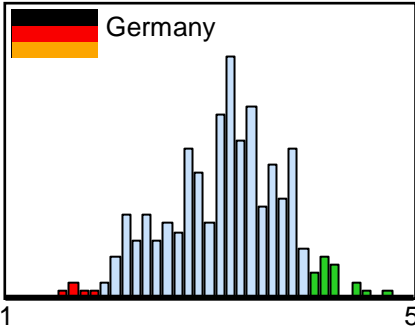
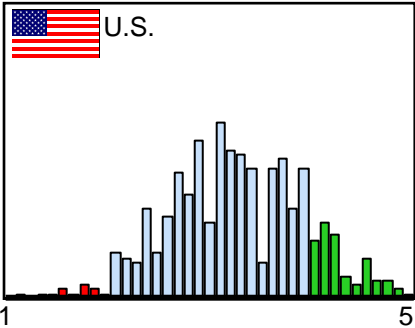
HOWEVER, MANAGEMENT PRACTICES VARY MUCH MORE WITHIN THAN ACROSS COUNTRIES

Distribution of firm level management practice scores – by country



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Management practices in the EU.

WHAT WE THINK WE ALREADY KNOW . . .

2004 wave

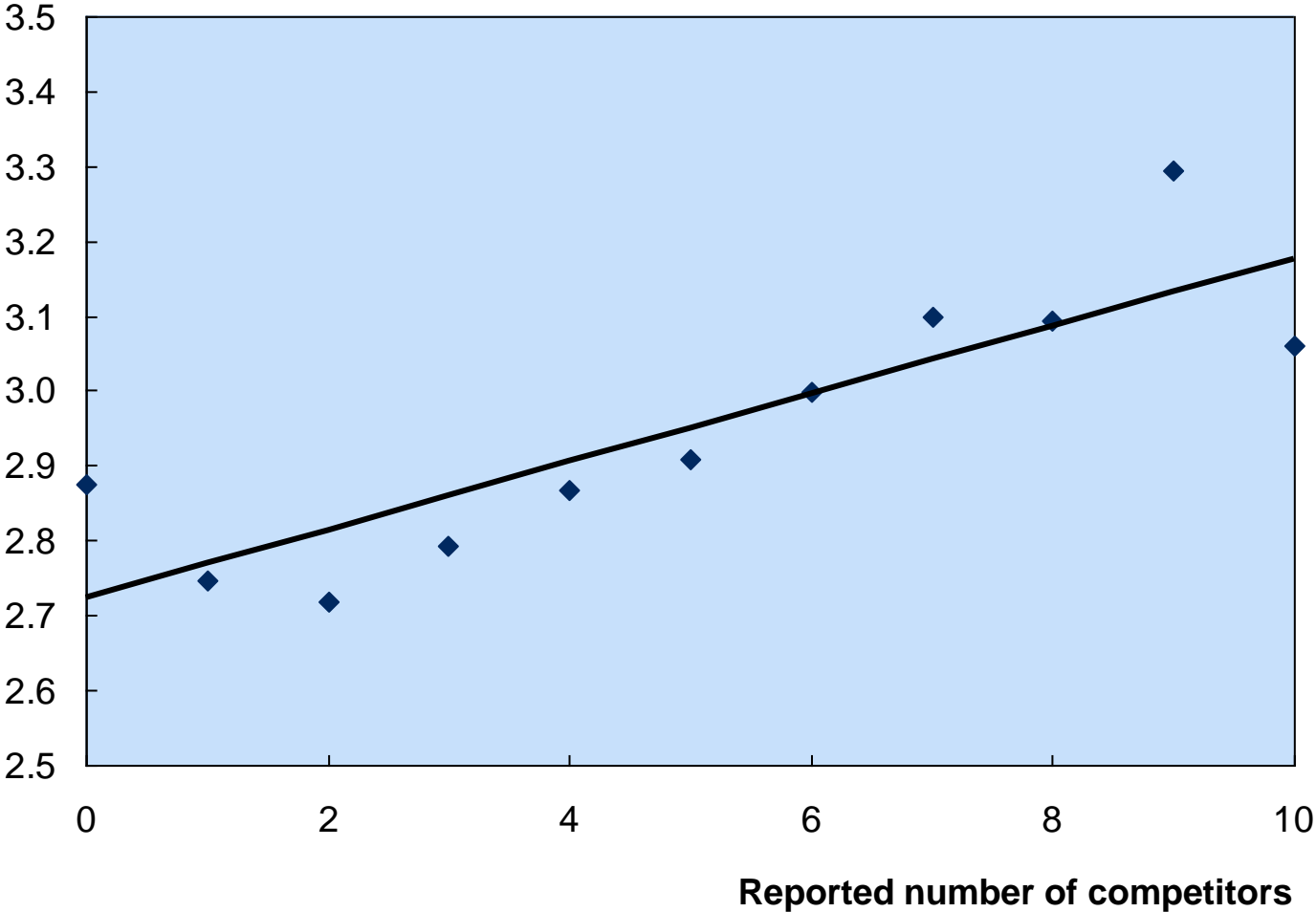
- 2 factors associated with better management practice
 - Competition and free trade
 - CEO selection: appointment based upon merit rather than eldest son (Primogeniture)

2006 wave

- Confirm key role of
 - Competition and free trade
 - CEO selection: appointment based upon merit
- Identify other key drivers
 - Labour market regulation
 - Ownership type
 - Skills
- Find managers are poor at assessing their own performance

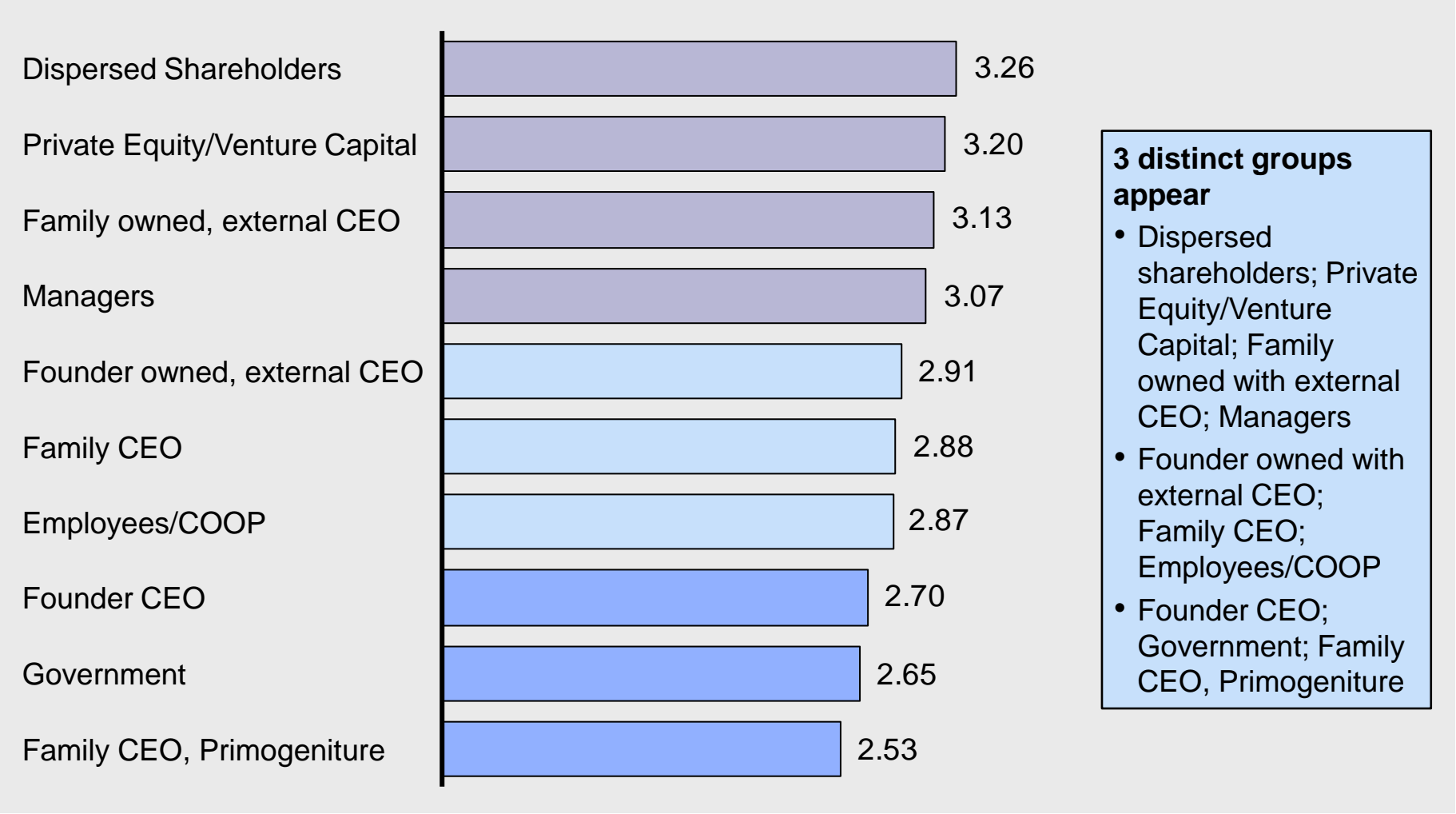
MORE INTENSE COMPETITION IS CLEARLY ASSOCIATED WITH BETTER MANAGEMENT PRACTICES

Assessed management practice score



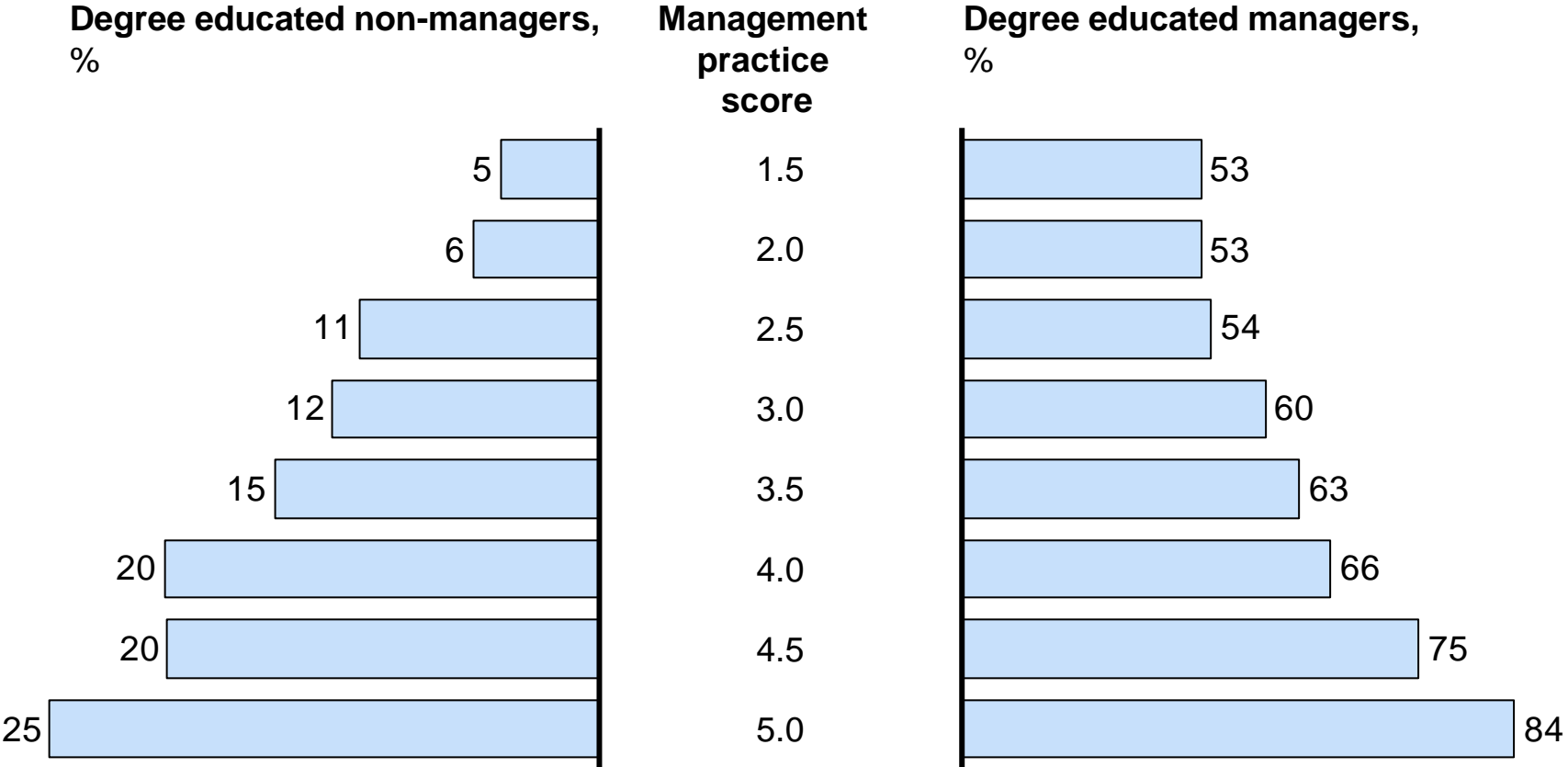
WE FIND MANAGEMENT PRACTICES TO VARY SUBSTANTIALLY BY OWNERSHIP TYPE

Management practice score* – by ownership type



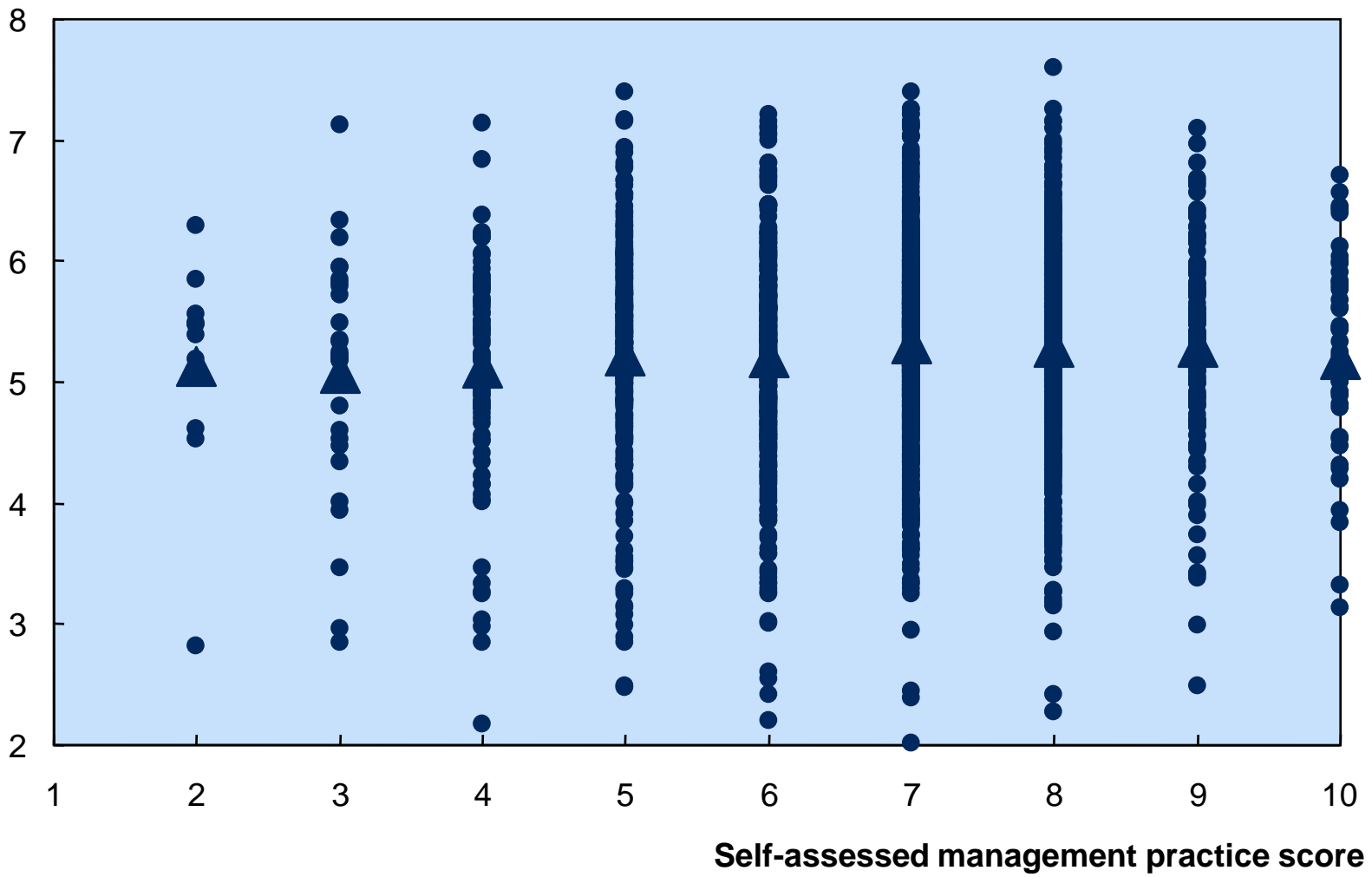
*All 12 countries

BETTER MANAGEMENT IS LINKED WITH HIGHER SKILL LEVELS OF BOTH MANAGERS AND NON-MANAGERS



IT TURNS OUT MANAGERS APPEAR TO BE POOR AT SELF-ASSESSING THEIR FIRM'S MANAGEMENT PRACTICE

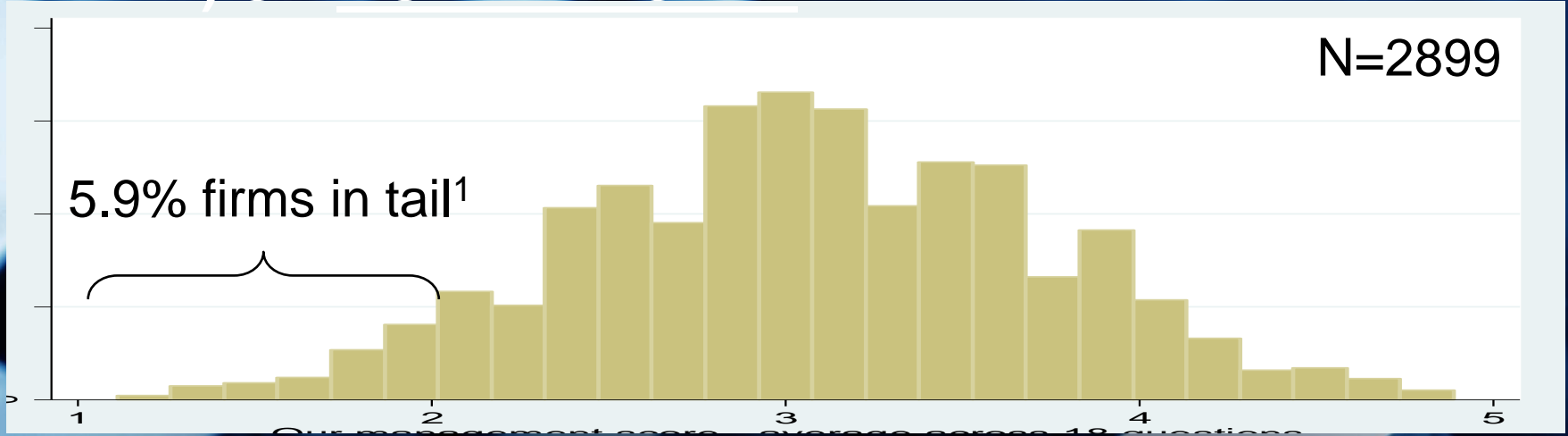
Labour productivity



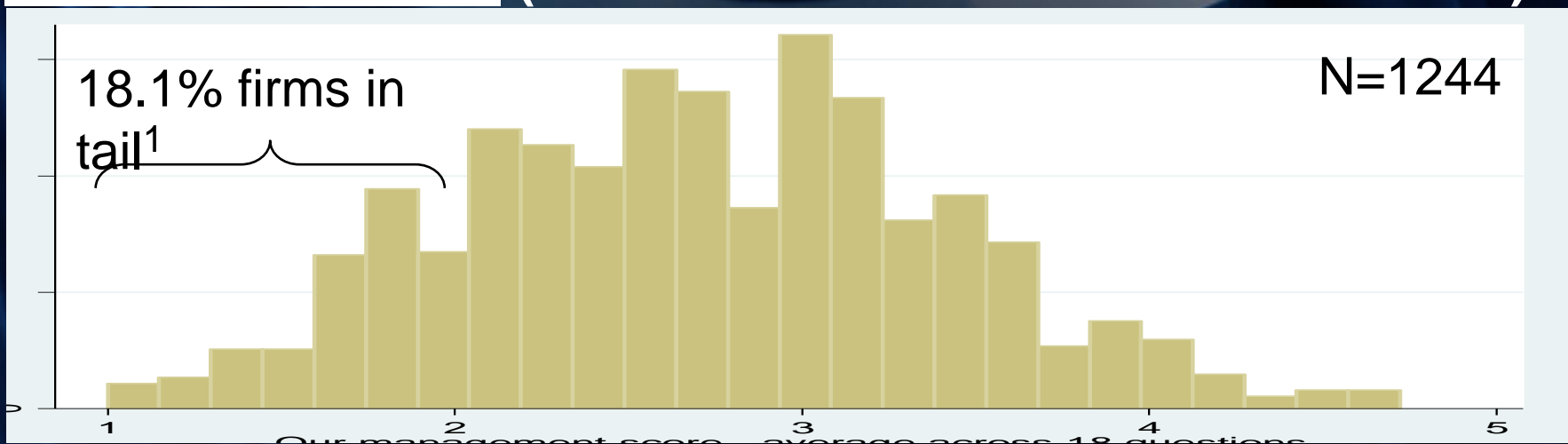
QUANTIFYING EFFECTS OF COMPETITION, FAMILY FIRMS, MULTINATIONAL & LABOR REGS:

- **ACROSS FIRMS ~ 1/2 VARIATION**
- **ACROSS COUNTRIES ~ 1/2 VARIATION**

“GOOD DOMESTIC” (MANY COMPETITORS, NOT PG FAMILY) OR MULTINATIONAL



“BAD DOMESTIC” (FEW COMPETITORS OR PG FAMILY)



¹ Tail defined as a score ≤ 2 . In the whole sample 9.6% of firms are in the tail.

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Policy Conclusions for Wales

POLICY CONCLUSIONS

- Factors that matter
 - Competition in product and labour markets
 - Openness to FDI
- Wales and rest of UK surprisingly mediocre given these
- But downsides are:
 - Family firms and primogeniture high
 - Skills
 - Competition in non-manufacturing sectors
 - Labour market flexibility weakening

MY FAVOURITE QUOTES:

The Swedish manufacturing goals

Production Manager: “Workers individual goals?
They just want to go home!”

Americans on geography

Interviewer: “How many production sites do you have abroad?
Manager in Indiana, US: “Well...we have one in Texas...”

The difficulties of defining ownership in Europe

Production Manager: “We’re owned by the Mafia”
Interviewer: “I think that’s the “*Other*” category.....although I guess I could put you down as an “*Italian multinational*” ?”

MY FAVOURITE QUOTES:

Staff rewards the American way

Production Manager: “For example, if an employee suggests a company slogan, and his name is used, he gets a TV.
If he is employee of the month, he gets a parking space”

Staff retention the UK way

Interviewer: “How would you persuade your top performers to stay?”
UK Chairman: “Sex is a great thing! If the employee finds a new girlfriend somewhere else, I can't do anything!”

MY FAVOURITE QUOTES:

The Indian alternative

Production Manager: “Are you a Brahmin?”

Interviewer “Yes, why do you ask?”

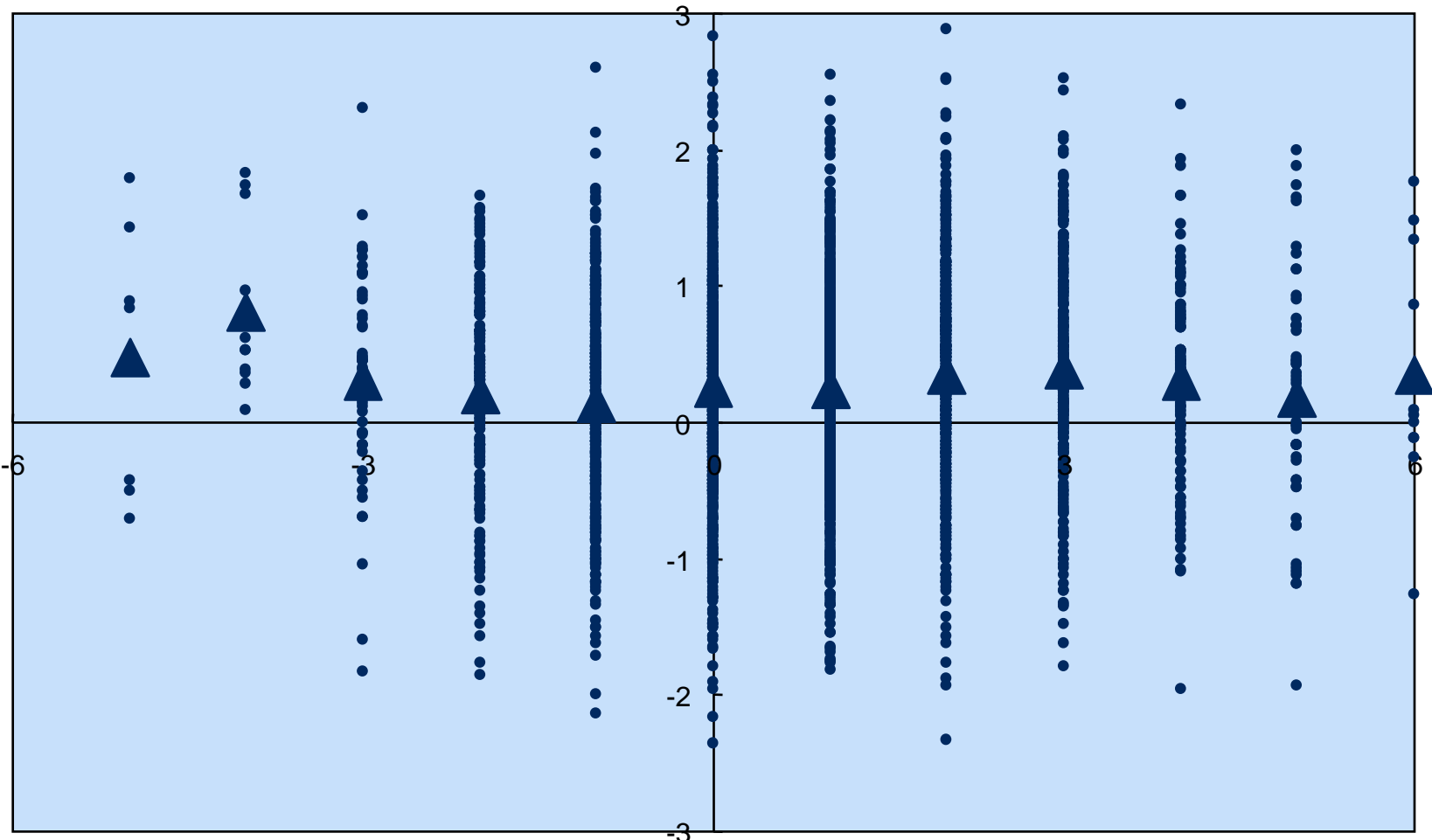
Production manager “And are you married?”

Interviewer “No?”

Production manager “Excellent, excellent, my son is looking for a bride and I think you could be perfect. I must contact your parents to discuss this”

MANAGERS EVEN APPEAR POOR AT ASSESSING THEIR RELATIVE STRENGTHS AND WEAKNESSES

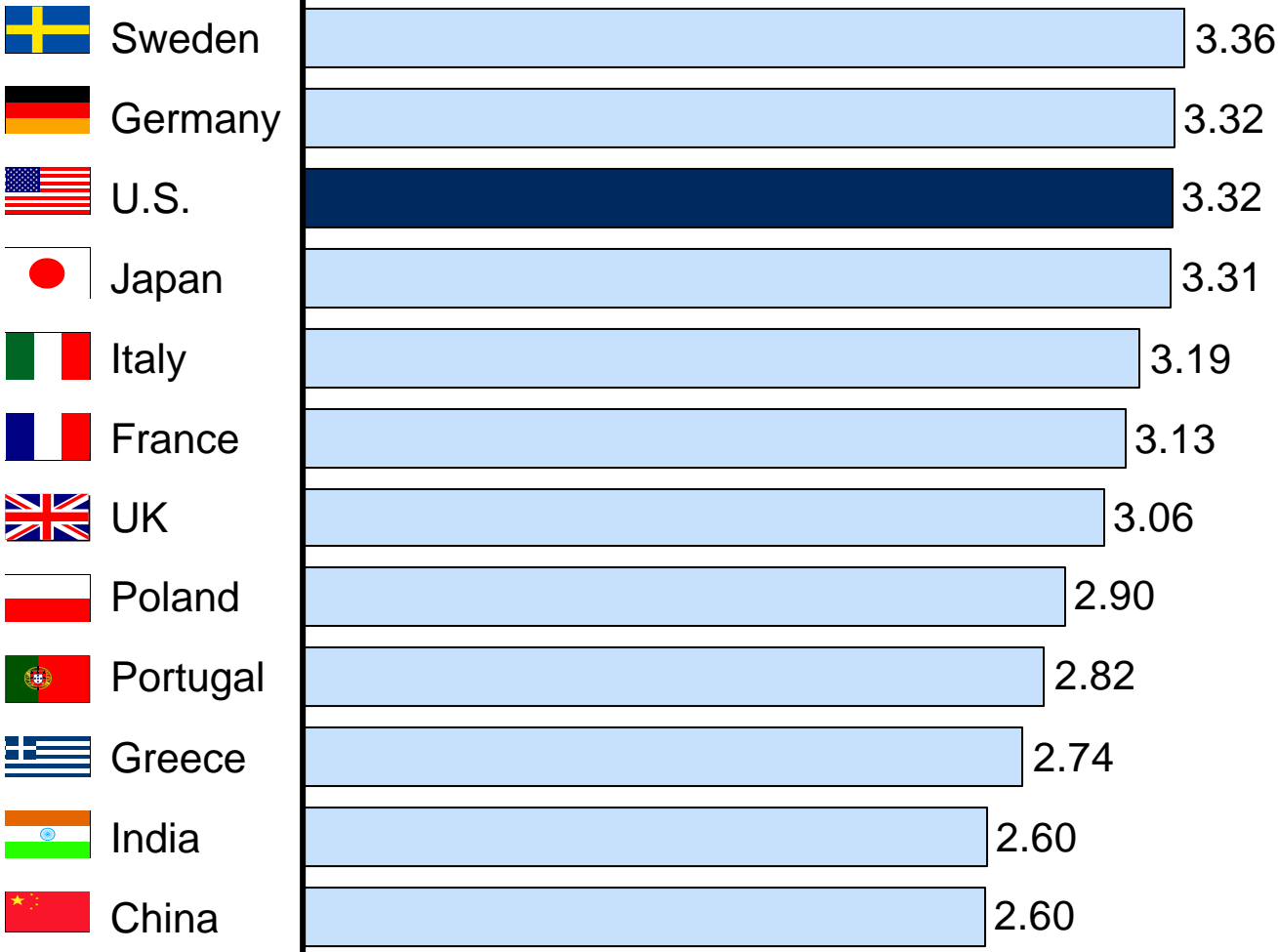
Assessed gap operations vs. people management practice score



Self-assessed gap operations vs. people management practice score

SWEDISH AND GERMAN FIRMS ARE ON AVERAGE BETTER AT SHOPFLOOR OPERATIONS

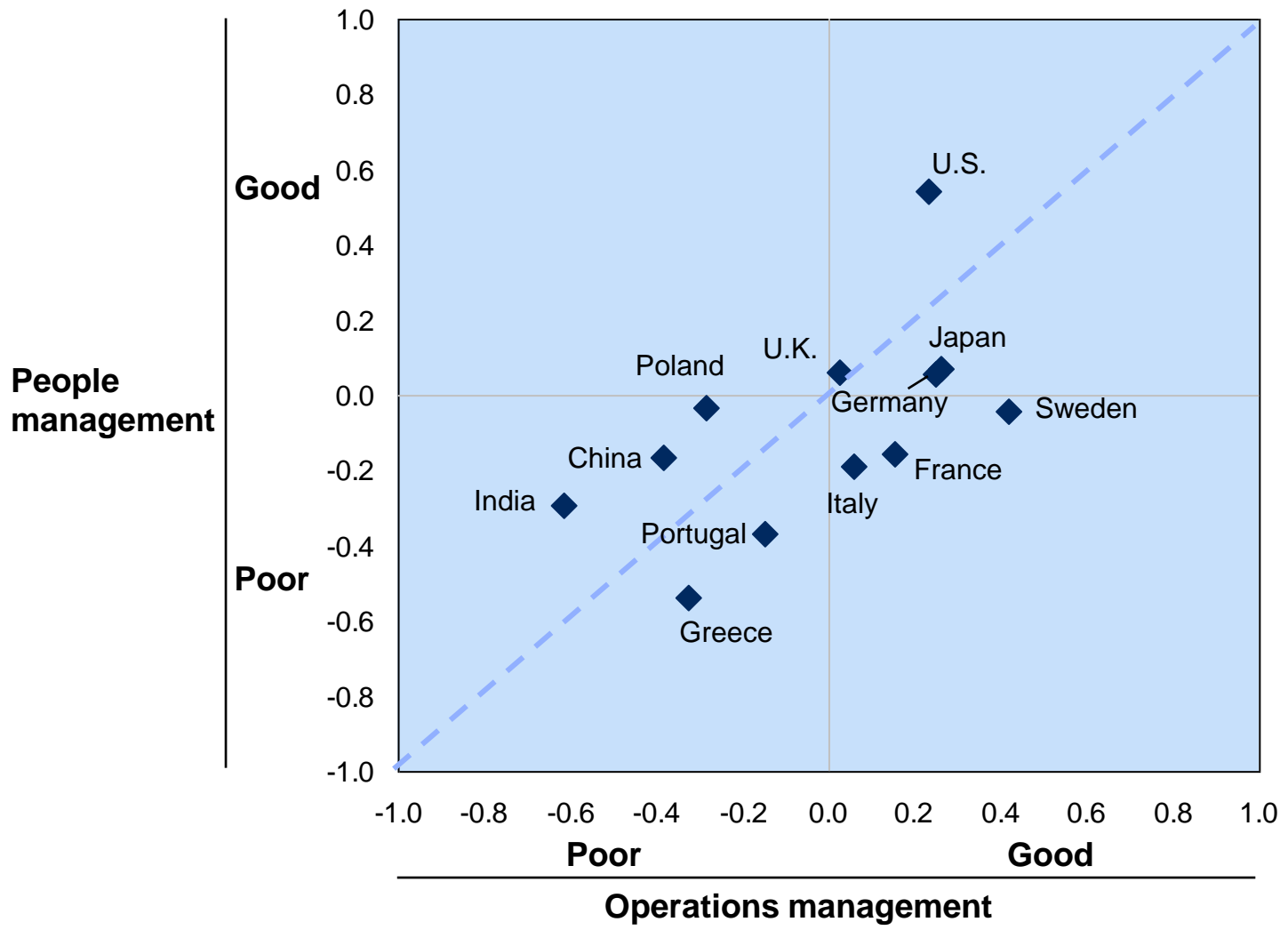
Average operations and targets score – by country



Source: China: Chinese interviews as of 11/10/2007; U.S. and India: Interviews as of 21/09/2007

THE U.S. IS NOT BEST AT EVERYTHING – THERE ARE NATIONAL STRENGTHS & WEAKNESSES

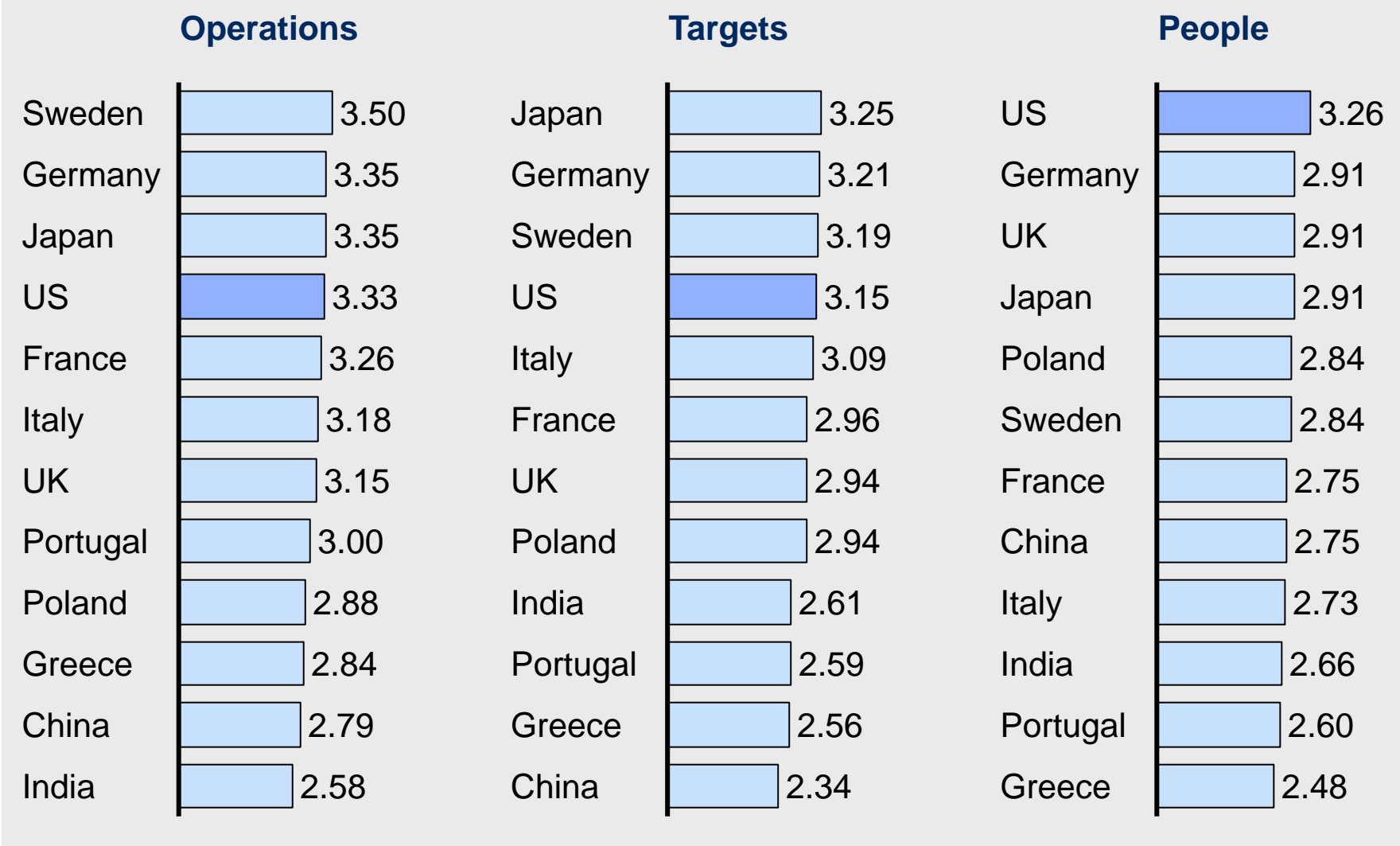
Average operations and people management practice scores* - by country



*Z-scores, i.e. normalized to zero mean and standard-deviation 1 by question

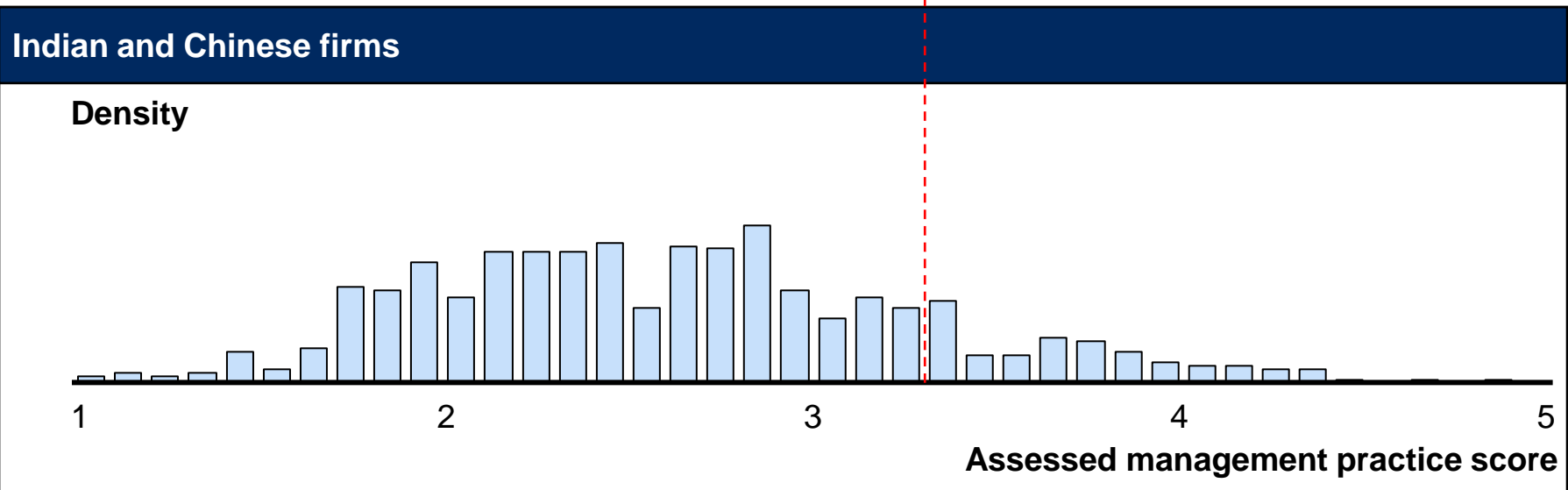
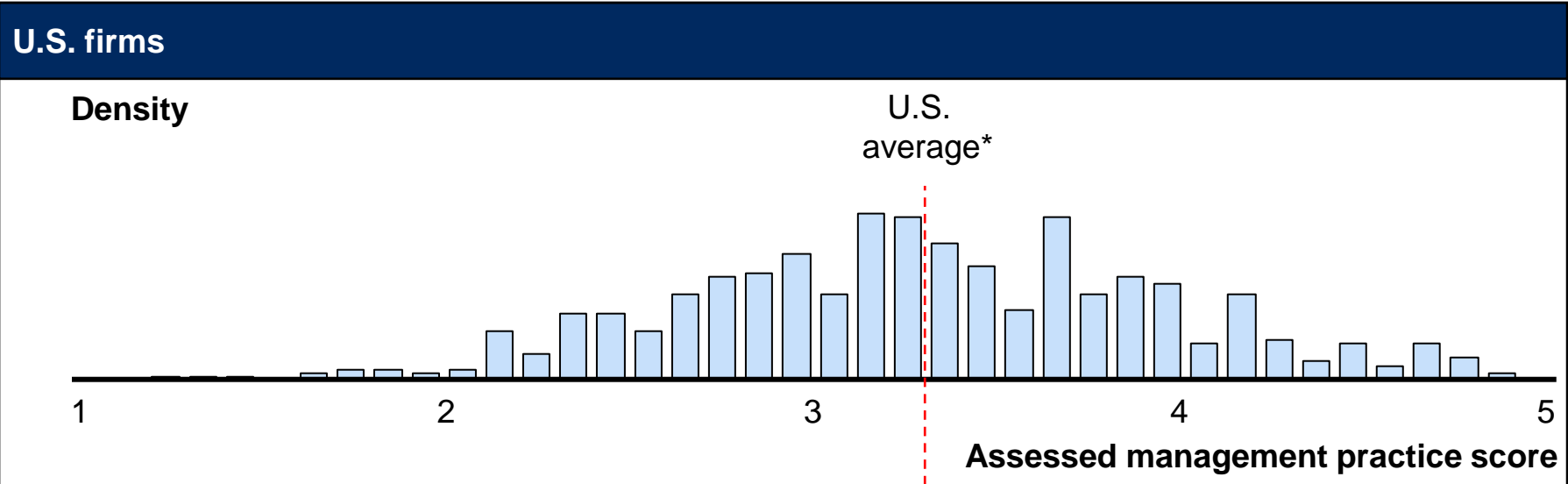
THE US IS NOT THE BEST AT EVERYTHING, ALTHOUGH IT IS DISTINCTIVE IN PEOPLE MANAGEMENT

Assessed Scores across three dimensions – by country



Source: Data collected from interviews as of Aug 01, 2007; team analysis

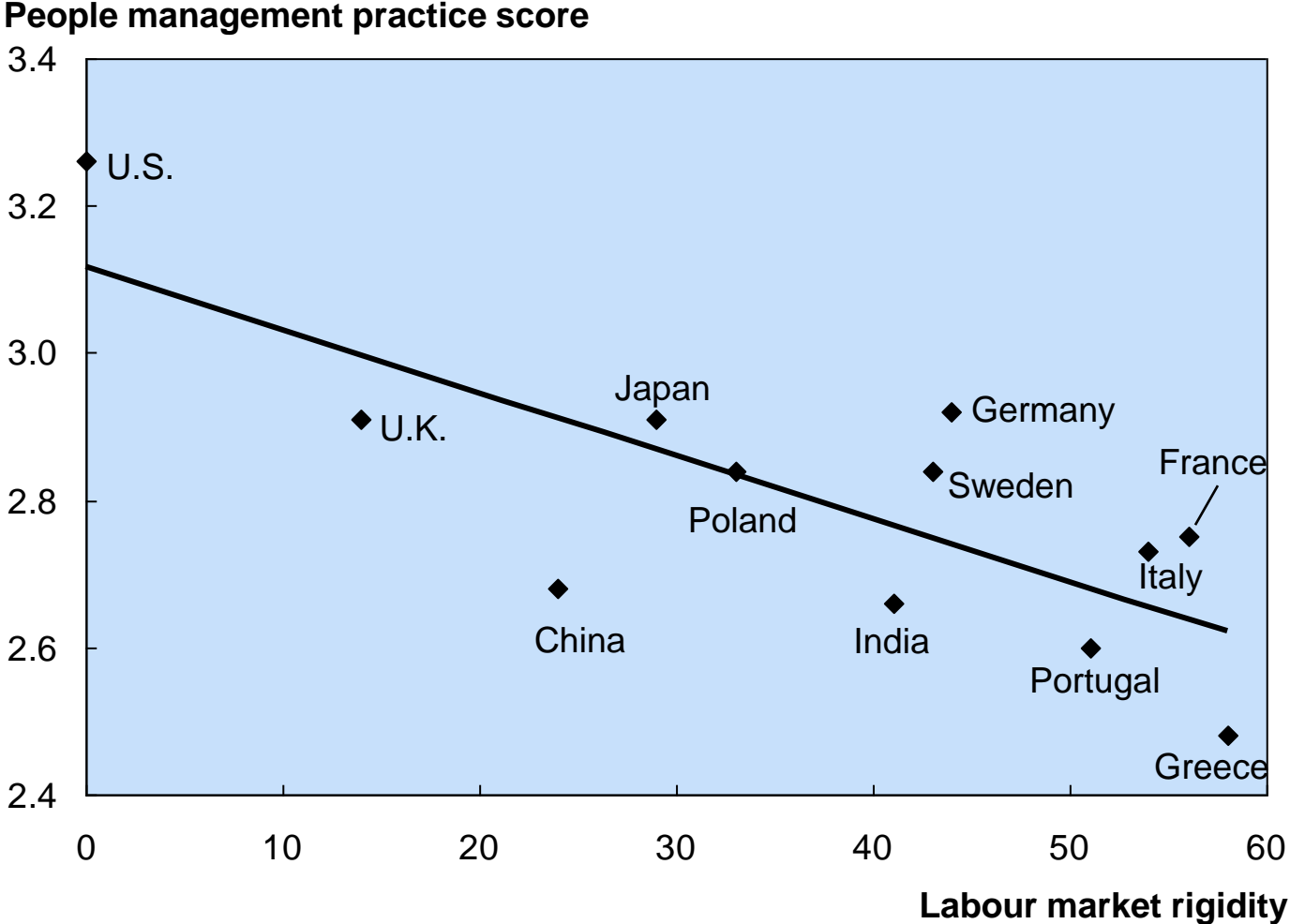
OVER 15% OF INDIAN AND CHINESE FIRMS ARE ALREADY BETTER MANAGED THAN THE AVERAGE U.S. FIRM



* 3.30

COUNTRIES WITH MORE RIGID LABOUR MARKET REGULATIONS HAVE LOWER PEOPLE MANAGEMENT SCORES

Labour market rigidity* vs. people management practice score – by country

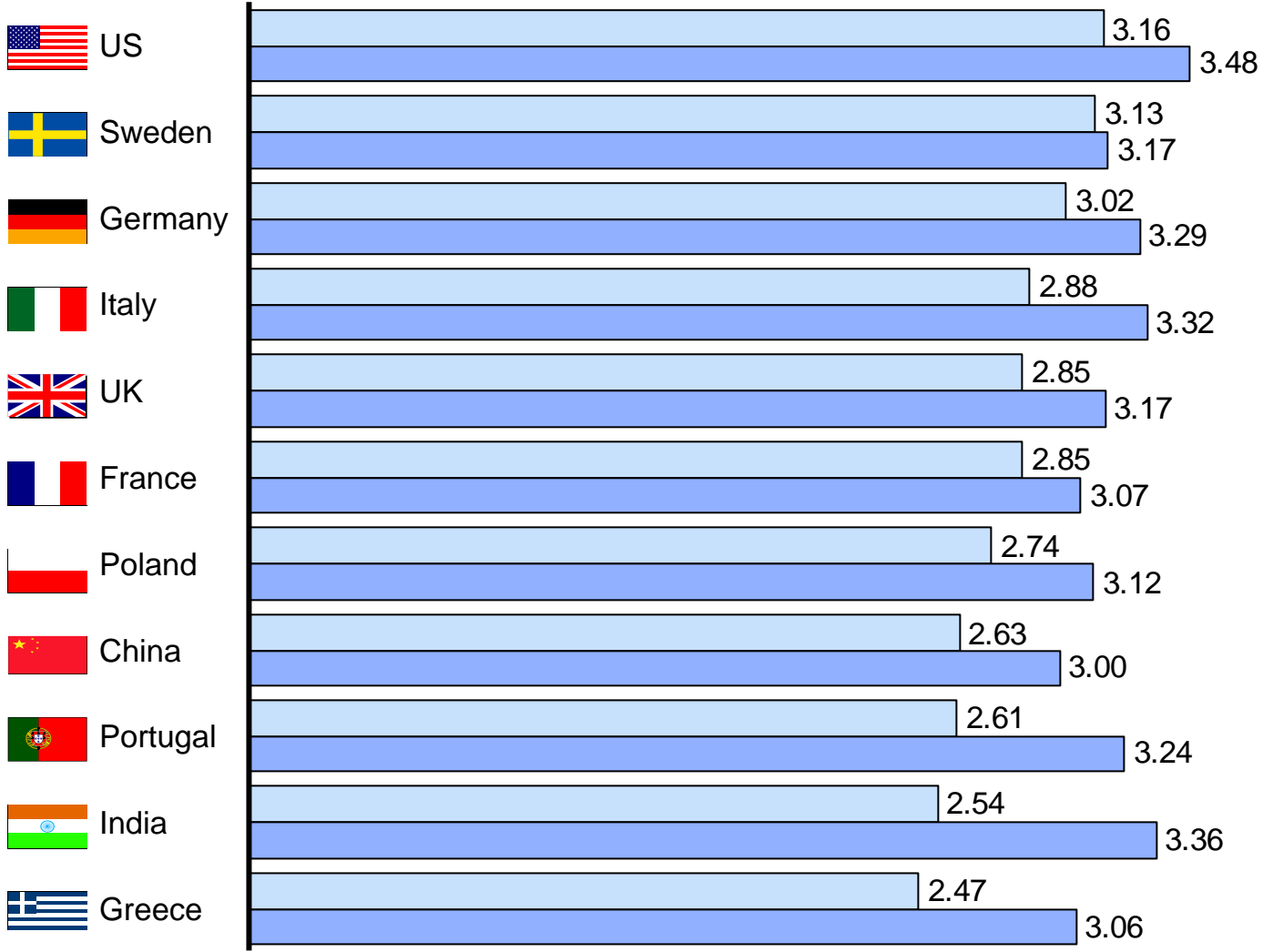


* World Bank "Employee rigidity index"

MULTINATIONALS ARE WELL RUN EVERYWHERE

Management practice score – by country*

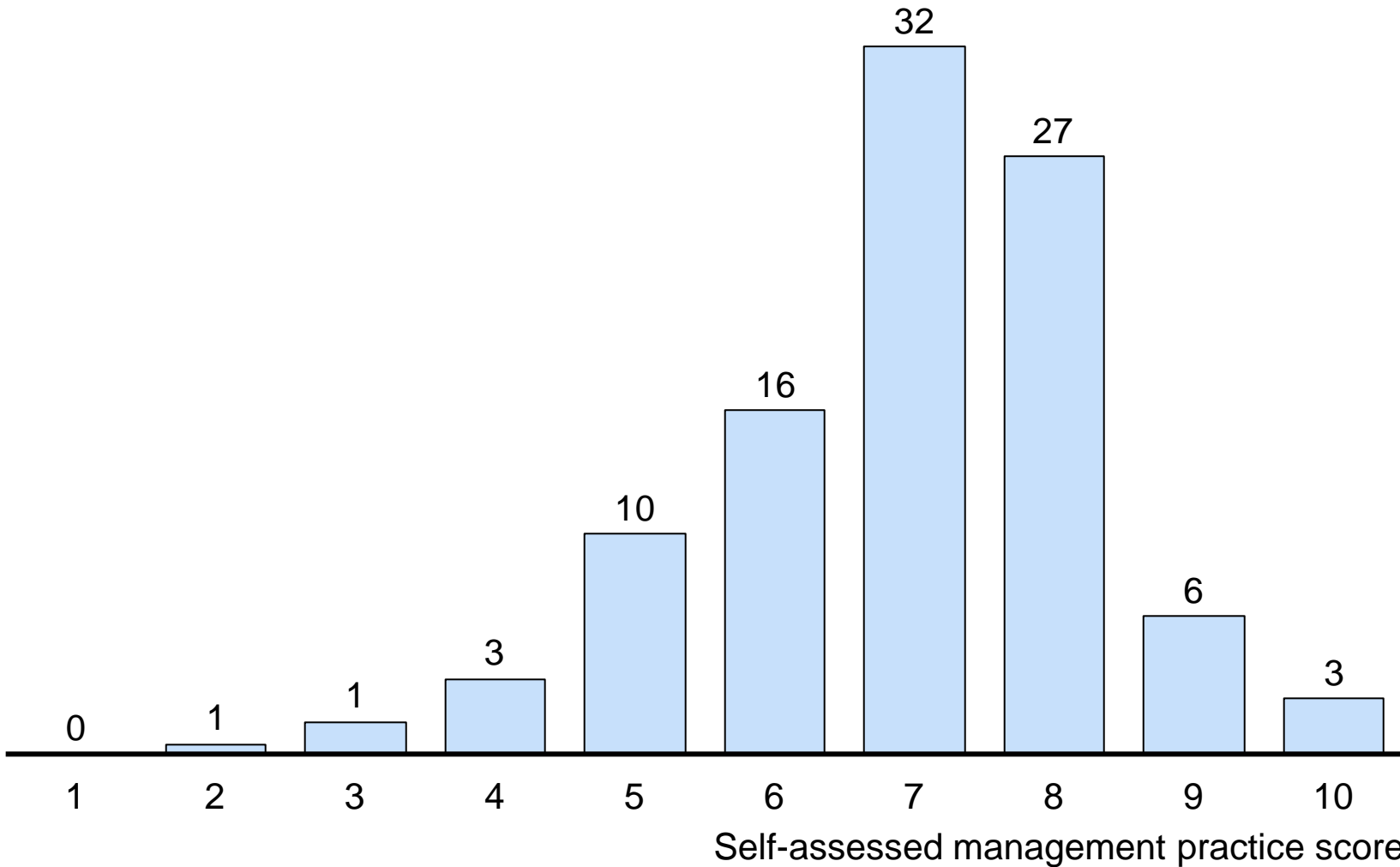
Domestic firms
Multinationals



* Japan excluded due to low multinational sample size

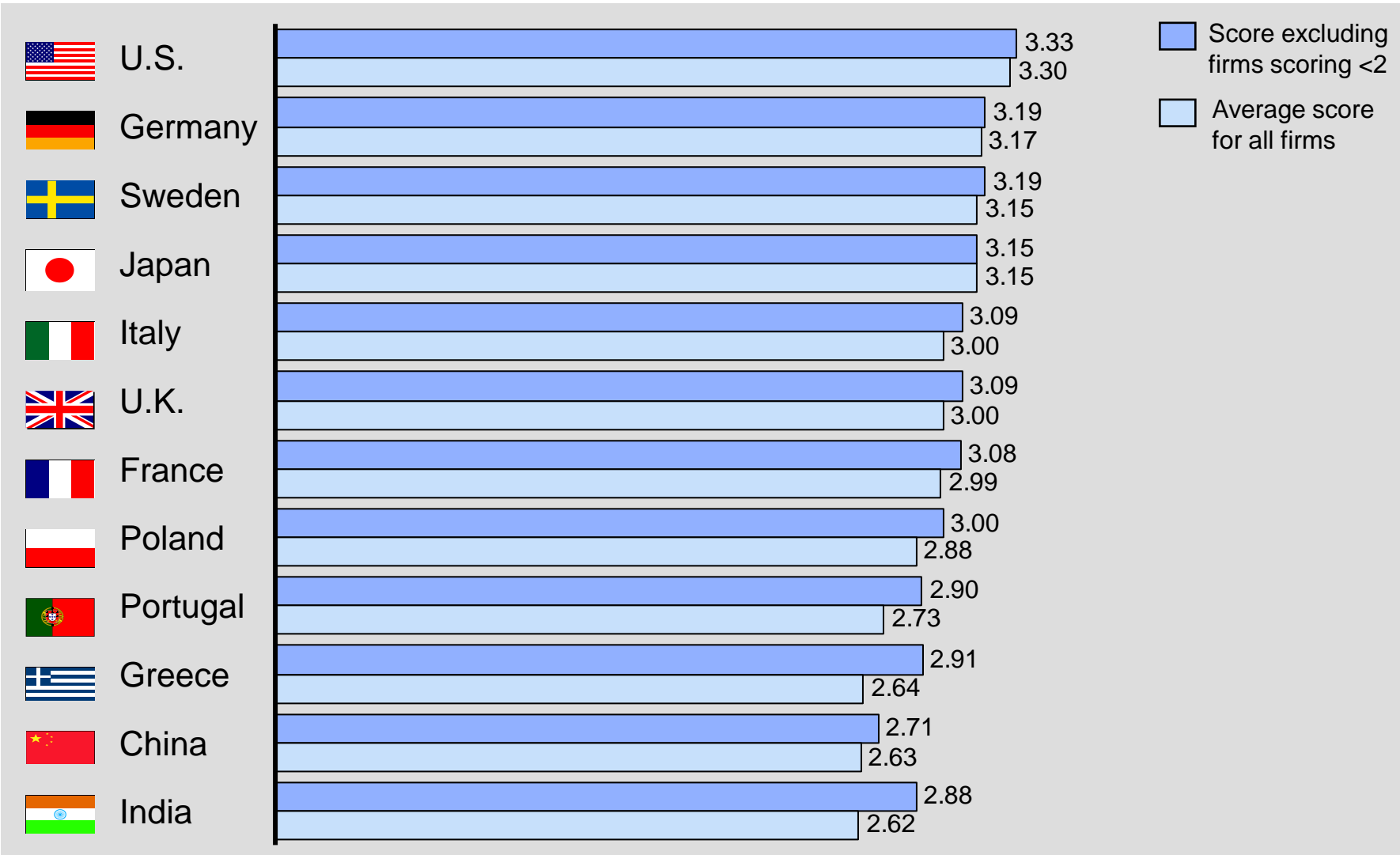
THE AVERAGE MANAGER BELIEVES THEIR COMPANY HAS ABOVE-AVERAGE MANAGEMENT PRACTICE

%



THE LONG 'TAIL' OF POORLY MANAGED FIRMS PULLS DOWN THE AVERAGE MANAGEMENT SCORE OF LOW PERFORMING COUNTRIES

Assessed management practice score – by country



Source: Management Matters dataset; team analysis