Management and the Wealth of Nations
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Based on joint work with
Nick Bloom (Stanford),
Raffaella Sadun (HBS)
OUTLINE

1. UK Performance & Productivity

2. Measuring Management

3. Management & Productivity : Micro & Macro

4. Drivers of Management

5. Policy
GDP PER CAPITA 16% BELOW 1970-2008 TREND

Notes: Trend line at 0.56% per quarter (linear trend from 1970Q1 to 2008Q1 when recession began). Growth 2010Q2 to 2014Q3 was 0.20% per quarter. Quarterly Gross domestic product (average) per head (ONS series IHXW), market prices (downloaded February 23rd)
PROBLEM IS NOT IN JOBS (73.3% EMPLOYMENT RATE) BUT IN PRODUCTIVITY (GDP PER HOUR)

Source: ONS Statistical Bulletin, Q3 2014, extracted 6 February 2015
Notes: Whole Economy GDP per hour worked, seasonally adjusted (Q22010=100).
Predicted value after 2008 Q2 is the dashed line calculated assuming a historical average growth of 2.3% per annum (the average over the period 1979 Q1 to 2008 Q2).
UK PRODUCTIVITY GAP WITH REST OF G7 IN LEVELS

Source: ONS International Comparisons of Productivity, First Estimates, 2013

Notes: Current price GDP per hour worked from ONS data. Average refers to G7 average, excluding UK
PRODUCTIVITY GROWTH CATCHING UP 30 YEARS PRE-CRISIS (REVERSING CENTURY OF RELATIVE DECLINE)

Source: Conference Board data, extracted 8 Feb 2015
Notes: GDP is in US$, constant prices, constant purchasing power parity. Base year 1997. Data for unified Germany is from 1991.
CAUSES OF PRODUCTIVITY GAP

• Tangible capital
  — Infrastructure (especially transport & energy)
  — Private sector business investment

• Human capital
  — Especially intermediate skills

• Lower efficiency
  — Innovation (e.g. R&D)
  — Management Practices
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1) Developing management questions
   • Scorecard for 18 monitoring, targets & people management practices ≈45min phone interview of middle managers or doctors

2) Getting organizations to participate in the interview
   • Introduced as “Lean-manufacturing” interview, no financials
   • Official Endorsement: Bundesbank, World Bank, DH, etc.

3) Obtaining unbiased comparable responses, “Double-blind”
   • Interviewers do not know the company’s performance
   • Managers are not informed (in advance) they are scored
Example incentives question, scored based on questions starting with “*How does the promotion system work?*”

| Score | (1) People are promoted primarily upon the basis of tenure, irrespective of performance (ability & effort) | (3) People are promoted primarily upon the basis of performance | (5) We actively identify, develop and promote our top performers |

**Note:** All 18 questions & 50+ examples in [http://worldmanagementsurvey.org/](http://worldmanagementsurvey.org/)
http://worldmanagementsurvey.org/

Panel & cross sectional element
Medium sized manufacturing firms(50-5,000 workers, median≈250)
Now extended to Hospitals, Schools, Retail, etc.
Average Management Scores by Country

Note: Unweighted average management scores (raw data) with number of observations. All waves pooled (2004-2014)
Average management scores across countries are strongly correlated with GDP per capita.

Data includes 2014 survey wave as of 12/1/2015.
Large variation of firm management within countries

Firms with 100 to 5000 employees randomly surveyed from country population. Dec 2014.
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These management scores are positively **correlated** with firm performance.
This positive *correlation* with performance has been true in every sector we have examined, e.g.

* Hospitals: Higher survival rates from heart-attack & surgery
* Schools: Better test and value-added scores
* Retail: Great profits and sales
* Universities: Higher research rankings
These correlations supported by randomized control trials (in Indian firms).

Source: Bloom et al (2013)
How much of management gap is due to worse reallocation (US as baseline)

Notes: These are the share-weighted management score differences relative to the US (sd=1). Length of bar shows total deficit which is composed of (i) the unweighted average management scores ("rel_zman", light red bar) and reallocation effect ("rel_OP" blue bar). Domestic firms only with management scores corrected for sampling selection bias.
How much of management gap is due to worse reallocation (US as baseline)

GB weighted management score 0.74 sd worse than US, with 0.20 of gap due to better US reallocation

Notes: These are the share-weighted management score differences relative to the US (sd=1). Length of bar shows total deficit which is composed of (i) the unweighted average management scores ("rel_zman", light red bar) and reallocation effect ("rel_OP" blue bar). Domestic firms only with management scores corrected for sampling selection bias.
<table>
<thead>
<tr>
<th></th>
<th>Management Gap with US</th>
<th>TFP Gap with US</th>
<th>% Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>-0.27</td>
<td>0.32</td>
<td>0.04</td>
</tr>
<tr>
<td>Japan</td>
<td>-0.34</td>
<td>0.34</td>
<td>0.05</td>
</tr>
<tr>
<td>Germany</td>
<td>-0.45</td>
<td>0.18</td>
<td>0.19</td>
</tr>
<tr>
<td>Canada</td>
<td>-0.49</td>
<td>0.22</td>
<td>0.17</td>
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<tr>
<td>Britain</td>
<td>-0.75</td>
<td>0.20</td>
<td>0.27</td>
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<td>Australia</td>
<td>-0.76</td>
<td>0.23</td>
<td>0.25</td>
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<td>Mexico</td>
<td>-0.77</td>
<td>0.60</td>
<td>0.12</td>
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<td>Poland</td>
<td>-0.81</td>
<td>0.20</td>
<td>0.32</td>
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<tr>
<td>Italy</td>
<td>-0.82</td>
<td>0.17</td>
<td>0.31</td>
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<tr>
<td>Spain</td>
<td>-0.93</td>
<td>0.31</td>
<td>0.30</td>
</tr>
<tr>
<td>France</td>
<td>-1.02</td>
<td>0.25</td>
<td>0.29</td>
</tr>
<tr>
<td>Brazil</td>
<td>-1.02</td>
<td>0.60</td>
<td>0.15</td>
</tr>
<tr>
<td>Chile</td>
<td>-1.02</td>
<td>0.54</td>
<td>0.18</td>
</tr>
<tr>
<td>India</td>
<td>-1.09</td>
<td>0.81</td>
<td>0.12</td>
</tr>
<tr>
<td>China</td>
<td>-1.19</td>
<td>0.78</td>
<td>0.12</td>
</tr>
<tr>
<td>Argentina</td>
<td>-1.2</td>
<td>0.57</td>
<td>0.17</td>
</tr>
<tr>
<td>Greece</td>
<td>-1.67</td>
<td>0.51</td>
<td>0.23</td>
</tr>
<tr>
<td>Zambia</td>
<td>-2.09</td>
<td>0.95</td>
<td>0.17</td>
</tr>
<tr>
<td>Mozambique</td>
<td>-2.17</td>
<td>0.79</td>
<td>0.25</td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td></td>
<td><strong>22%</strong></td>
</tr>
</tbody>
</table>
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Competition boosts Management quality

Notes: Management is an average of all 18 questions (set to sd=1) on the y-axis. Lerner is median firm profits over sales ratio in industry-country pair. Management & competition are expressed in relation in deviations from the country and global industry average. Competition measure (1-Lerner) is binned into quintiles. 5,982 observations.
FAMILY-RUN FIRMS TYPICALLY HAVE THE WORST MANAGEMENT

- **Dispersed Shareholders**: Management score 3.1
- **Private Equity**: Management score 3.0
- **Family owned, non-family CEO**: Management score 2.9
- **Managers**: Management score 2.9
- **Private Individuals**: Management score 2.8
- **Government**: Management score 2.8
- **Family owned, family CEO**: Management score 2.7
- **Founder owned, founder CEO**: Management score 2.7

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.
Education: for managers and non-managers seems highly correlated with better management

Source: www.worldmanagementsurvey.com
INFORMATION: ARE FIRMS AWARE OF THEIR MANAGEMENT PRACTICES BEING GOOD/BAD?

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”

Vast majority thought they were way above average (especially Brazilians & Indians)
SELF-SCORES UNCORRELATED WITH PRODUCTIVITY

* Insignificant 0.03 correlation with labor productivity, cf. management score has a 0.295
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WHAT TO DO/PRIORITIES

• Public Investment/Infrastructure
  — LSE Growth Commission Proposals on new architecture
  — Fiscal plans to balance current not total budget deficit
• Efficiency of public service delivery/management
• Innovation
• Human capital
• Mitigating policy uncertainty
• Structure of taxes
WHAT TO DO/PRIORITIES

- Public Investment/Infrastructure
- **Efficiency of public service delivery/management**
  - Experimentation & evaluation (e.g. SME schemes)
  - Data & information
  - Competition (health, education)
- **Innovation (e.g. IGL)**
  - Banking reform, governance
  - Universities, immigration
- Human capital
  - Especially intermediate level
- Mitigating policy uncertainty
  - Stable & politically independent regulation
- Structure of taxes
MY FAVOURITE QUOTES:

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” ?”

Americans on geography

*Interviewer:* “How many production sites do you have abroad?  
*Manager in Indiana, US:* “Well…we have one in Texas…”
Interviewer: “Do staff sometimes end up doing the wrong sort of work for their skills?”

NHS Manager: “You mean like doctors doing nurses jobs, and nurses doing porter jobs? Yeah, all the time. Last week, we had to get the healthier patients to push around the beds for the sicker patients”

Don’t do Business in Indian hospitals

Interviewer: “Is this hospital for profit or not for profit”

Hospital Manager: “Oh no, this hospital is only for loss making”
SOME FIRMS SEEMED TO BE TOO TRUTHFUL

Who rules the home in Ireland

Interviewer: “Would you mind if I asked how much your bonus is as a manager?”
Manager: “I don't even tell my wife how much my bonus is!”
Interviewer: “Frankly, that's probably the right decision…”

Staff retention the American way

Manager: “I spend most of my time walking around cuddling and encouraging people - my staff tell me that I give great hugs”

The trusted Secretary

French secretary: “You want to talk to the plant manager? There are legal proceedings against him, so hurry up!!”
Further Reading

- LSE Growth Commission
  - http://www.lse.ac.uk/researchAndExpertise/units/growthCommission/home.aspx
- Summary of our management work
- Data on management & other resources
  - http://worldmanagementsurvey.org/
- Competition & management in UK public sector (hospitals, schools)
NEW INSTITUTIONAL ARCHITECTURE

• **Infrastructure Strategy Board**
  – Independent expert advice
  – Accountable to Parliament
  – Foundation for cross-party consensus

• **Infrastructure Planning Commission**
  – Delivery – planning implications
  – Share benefits of development
  – No ministerial veto

• **Infrastructure Bank**
  – Reduce policy risk to encourage private sector investment
  – Develop sector-specific skills in new areas
  – Catalytic/multiplier effects on private investment
POST 2009 STAGNATION OF CAPITAL SERVICES PER HOUR

Chart 8

Capital intensity in the UK market sector
log scale, 1999=100

Source: Oulton (2015)

Note: Capital intensity is capital services (hybrid Törnqvist) per hour worked. R&D included.
While domestic firms differ by country, multinational management practices are more similar.

<table>
<thead>
<tr>
<th>Country</th>
<th>Management score</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>3.4</td>
</tr>
<tr>
<td>Sweden</td>
<td>3.2</td>
</tr>
<tr>
<td>Germany</td>
<td>3.0</td>
</tr>
<tr>
<td>Japan</td>
<td>3.2</td>
</tr>
<tr>
<td>Canada</td>
<td>2.8</td>
</tr>
<tr>
<td>UK</td>
<td>3.2</td>
</tr>
<tr>
<td>Italy</td>
<td>3.4</td>
</tr>
<tr>
<td>France</td>
<td>3.0</td>
</tr>
<tr>
<td>Australia</td>
<td>2.6</td>
</tr>
<tr>
<td>Poland</td>
<td>3.2</td>
</tr>
<tr>
<td>Mexico</td>
<td>3.2</td>
</tr>
<tr>
<td>China</td>
<td>2.8</td>
</tr>
<tr>
<td>New Zealand</td>
<td>2.6</td>
</tr>
<tr>
<td>Portugal</td>
<td>2.8</td>
</tr>
<tr>
<td>India</td>
<td>3.0</td>
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<td>Chile</td>
<td>3.0</td>
</tr>
<tr>
<td>Brazil</td>
<td>3.2</td>
</tr>
<tr>
<td>Argentina</td>
<td>3.0</td>
</tr>
<tr>
<td>Republic of Ireland</td>
<td>3.0</td>
</tr>
<tr>
<td>Greece</td>
<td>2.8</td>
</tr>
</tbody>
</table>

Sample of 7,303 manufacturing firms, of which 4,926 are purely domestic and 2,377 are foreign multinationals. Domestic multinationals are excluded – that is the domestic subsidiaries of multinational firms (like a Toyota subsidiary in Japan).