

*LSE Works: Centre for Economic Performance*

# Where is Future Growth Going to Come From?

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Business School*

**LSE** events



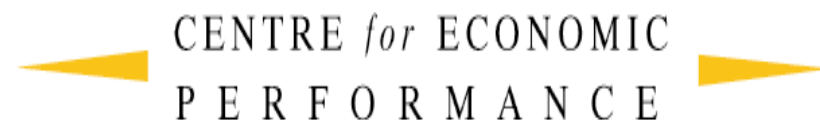
# WHERE IS FUTURE GROWTH GOING TO COME FROM?

**John Van Reenen**

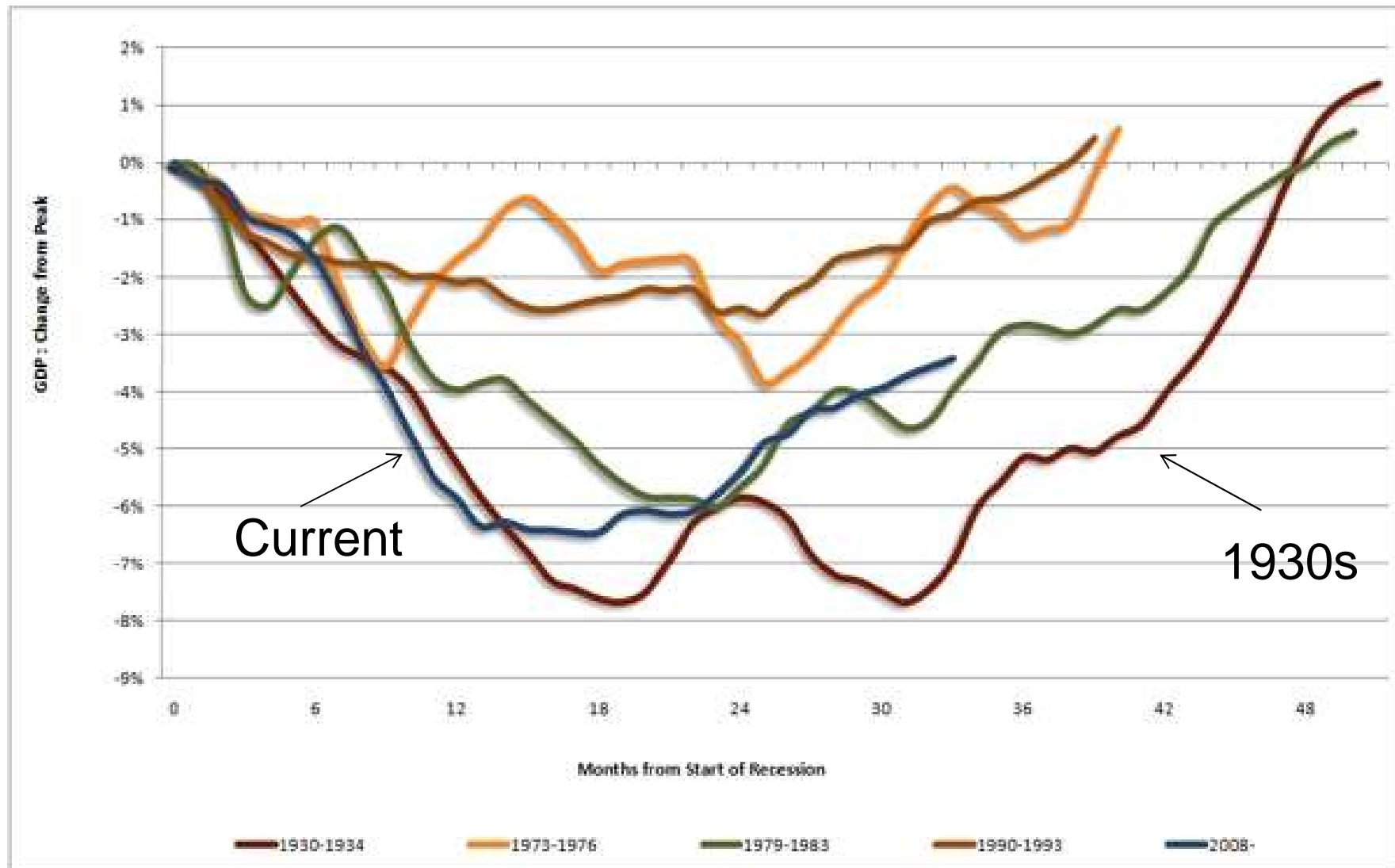
Department of Economics, LSE

Director, Centre for Economic Performance

LSE Works Lecture; February 17th 2010



# 2008-09 “GREAT RECESSION” COMPARED TO PREVIOUS RECESSIONS, CUMULATIVE CHANGE IN UK GDP



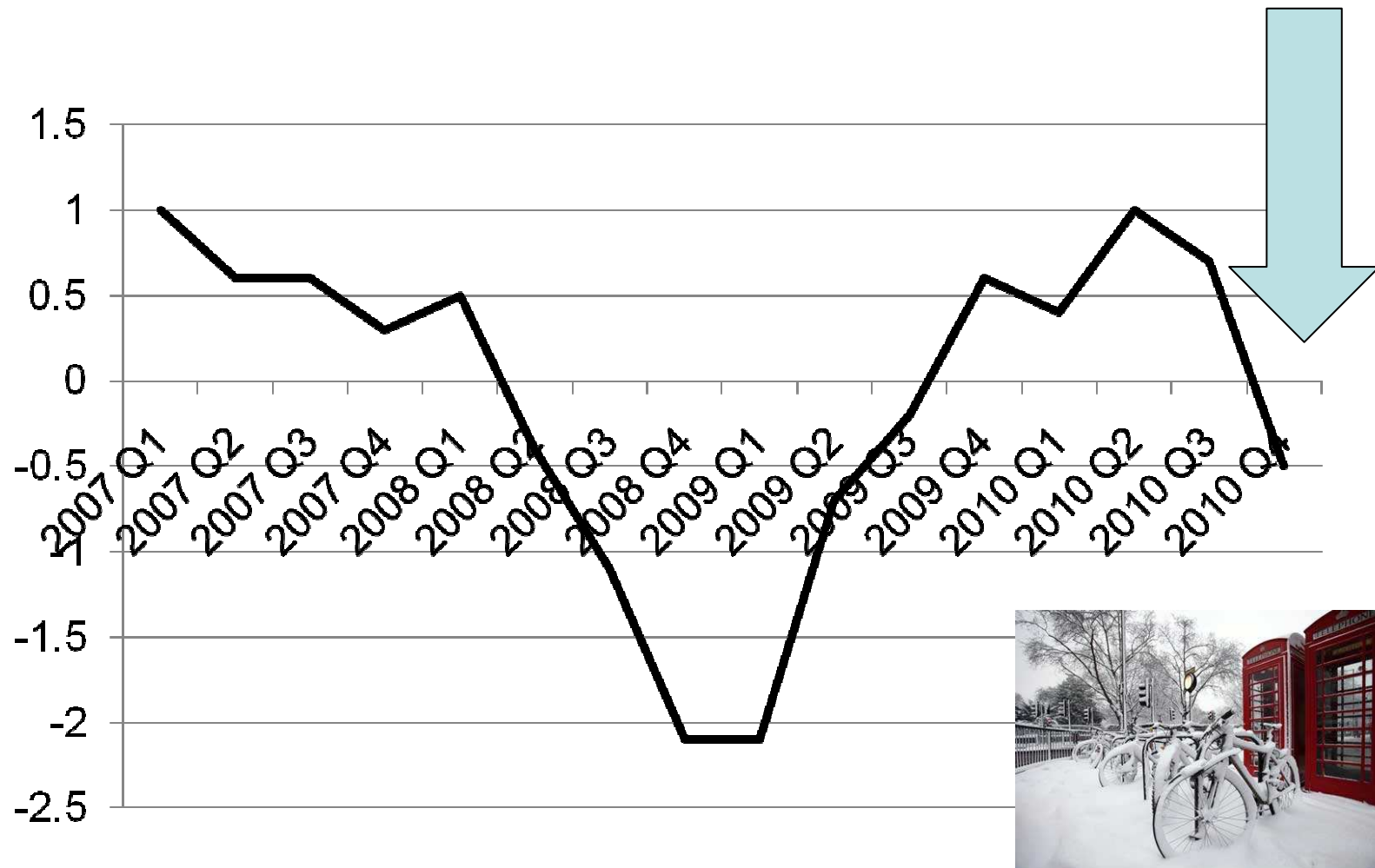
Source: NIESR (data through 2010,Q3)

# WORRIES ABOUT GROWTH

- Austerity program biggest budget cut since WW”
  - Chancellor: No need for a “Plan B” because economy firmly on road to recovery
  - Shrinking economy? 2010Q4 0.5% GDP fall
  - Pfizer closes down Sandwich research lab



# UK QUARTERLY GDP GROWTH 2007Q1-2010Q4: LET'S HOPE IT'S JUST THE WRONG KIND OF SNOW.....



**Source:** ONS (February 2011), Quarterly Growth of GDP, seasonally adjusted

# THE WORRIES ABOUT GROWTH

- Austerity without a growth plan
  - need a “Plan V”
- An active de-industrial policy?
  - **Macro policies** damaging growth through premature scrapping of human capital and fixed capital
  - **Micro policies** are undermining growth (e.g. Universities, immigration)
- Faster income growth since mid-1990s, but still a productivity gap between UK & leading countries:
  - Technological innovation
  - Management practices

**GREAT PEOPLE TO WORK FOR?**



**GREAT PLACES TO WORK?.....**



Ericsson factory shop floor





State-owned telecoms equipment factory in Belarus. Everyone on a mysterious break?



Family-owned textile company outside  
Mumbai, India

# OUTLINE

## **1. International Comparisons: How is the UK doing?**

## 2. Why is there a still productivity gap?

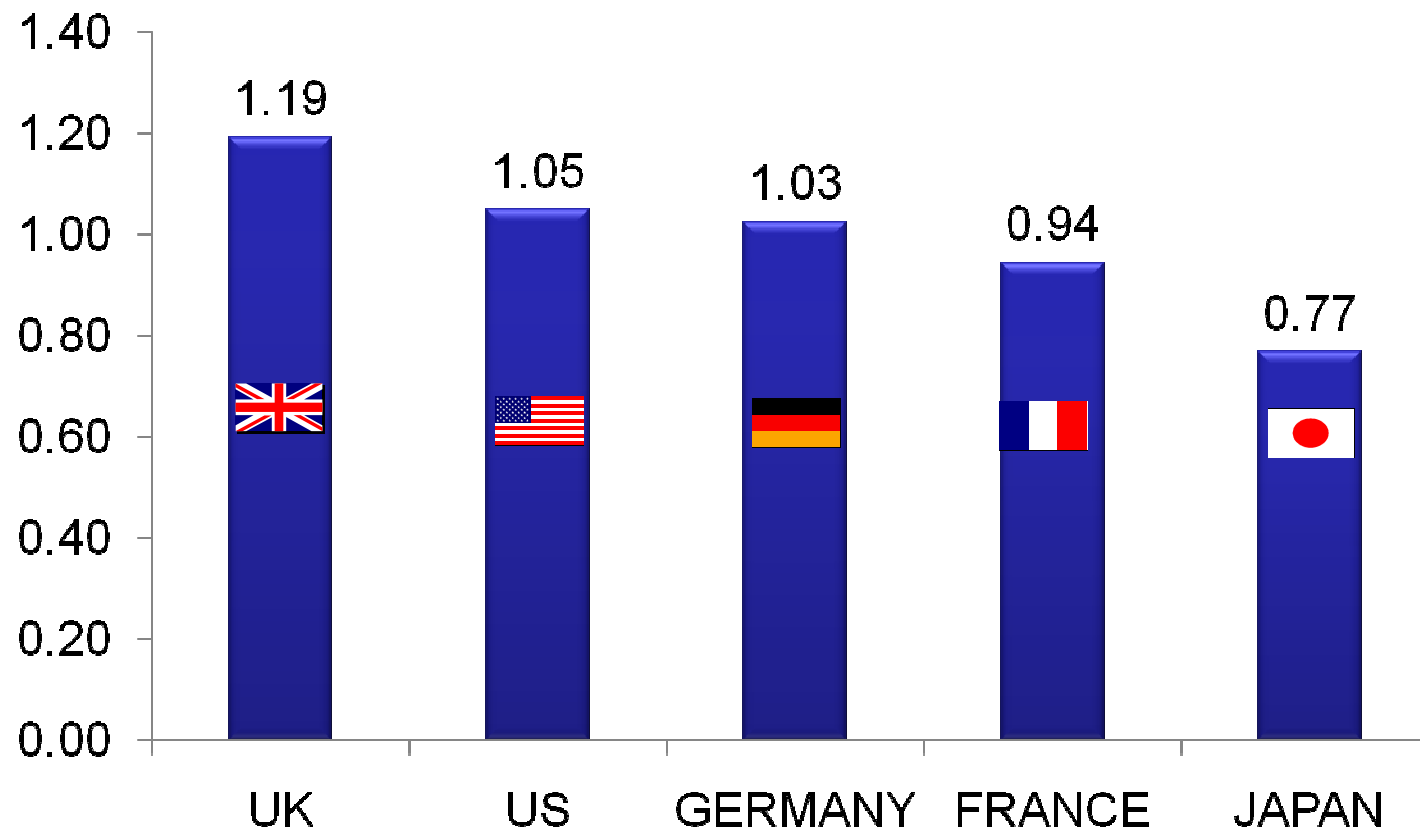
- Technological Innovation
- Management Practices

## **3. Short-Run policies:** Alternatives to Extreme Austerity

## **4. Long Run Growth:** The V-Plan

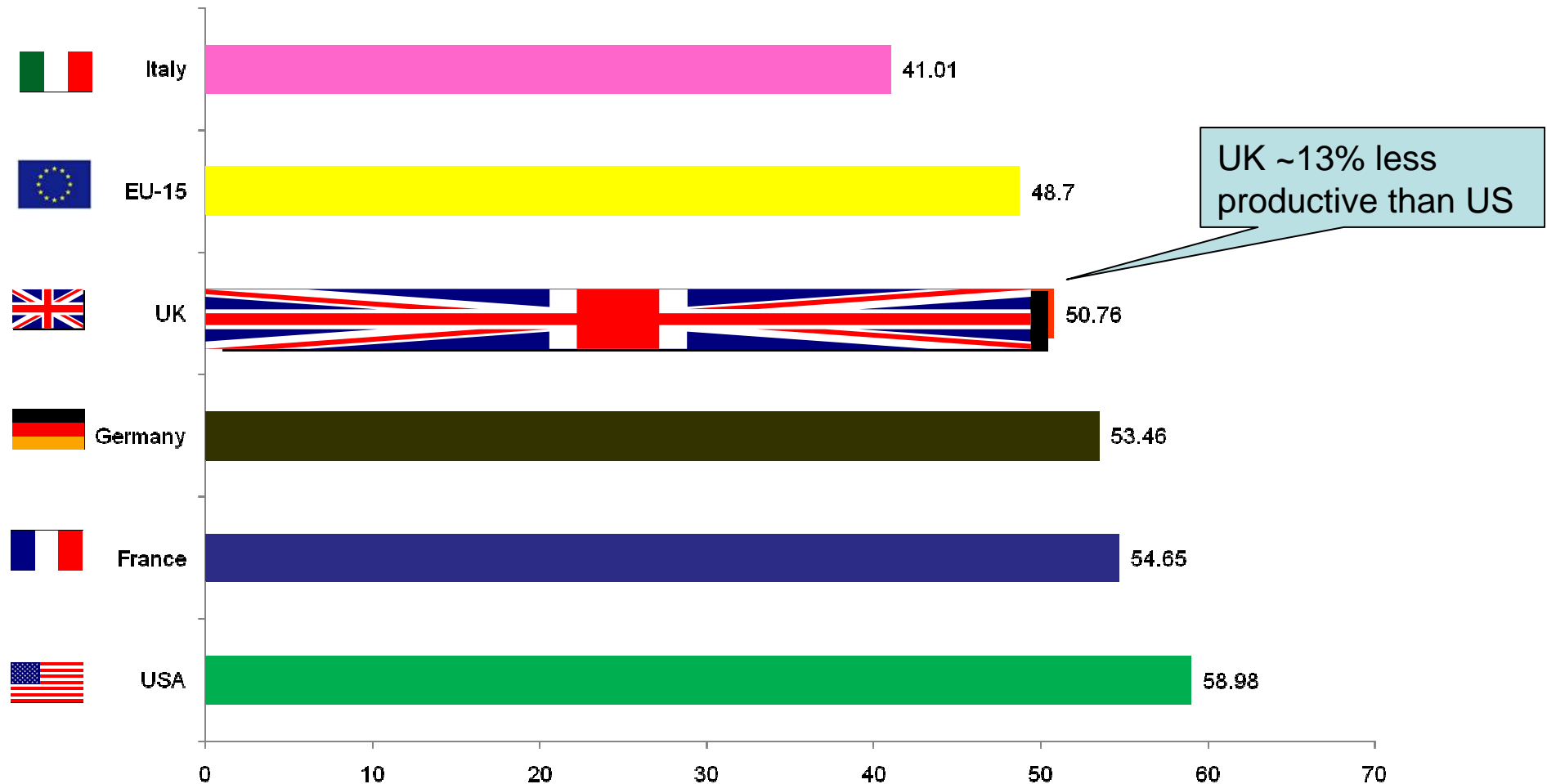
## UK GROWTH PERFORMANCE SINCE 1997 IS GOOD: ANNUAL AVERAGE PER CAPITA GDP GROWTH 1997-2010

% (GDP/person) growth



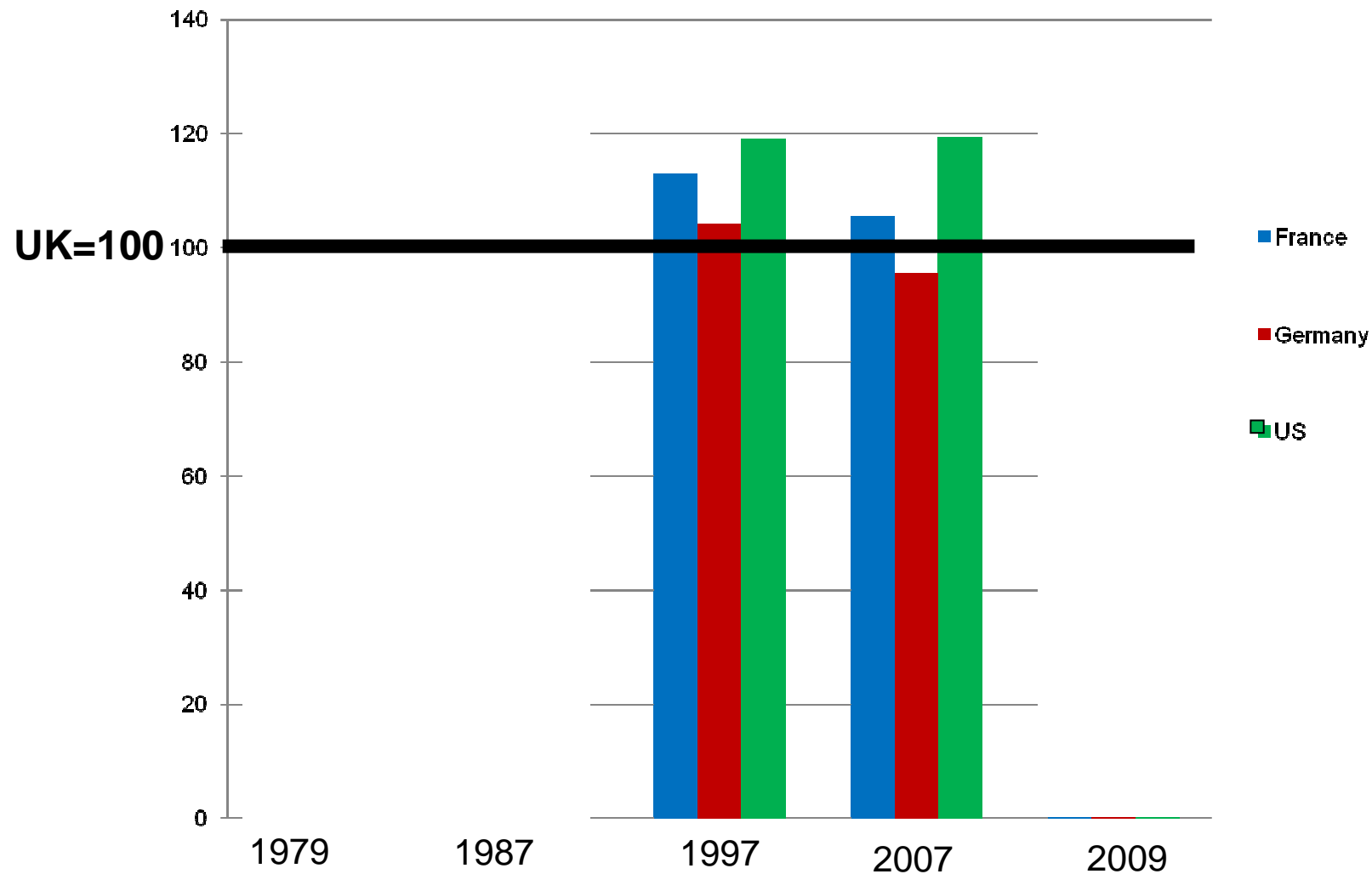
**Source:** Conference Board World Economy Database,  
February 2011, EKS \$PPPs

# RELATIVE LABOUR PRODUCTIVITY (LEVELS OF GDP PER HOUR) IN 2009; \$PPP



**Source:** Conference Board World Economy Database, September 2010, Table 8

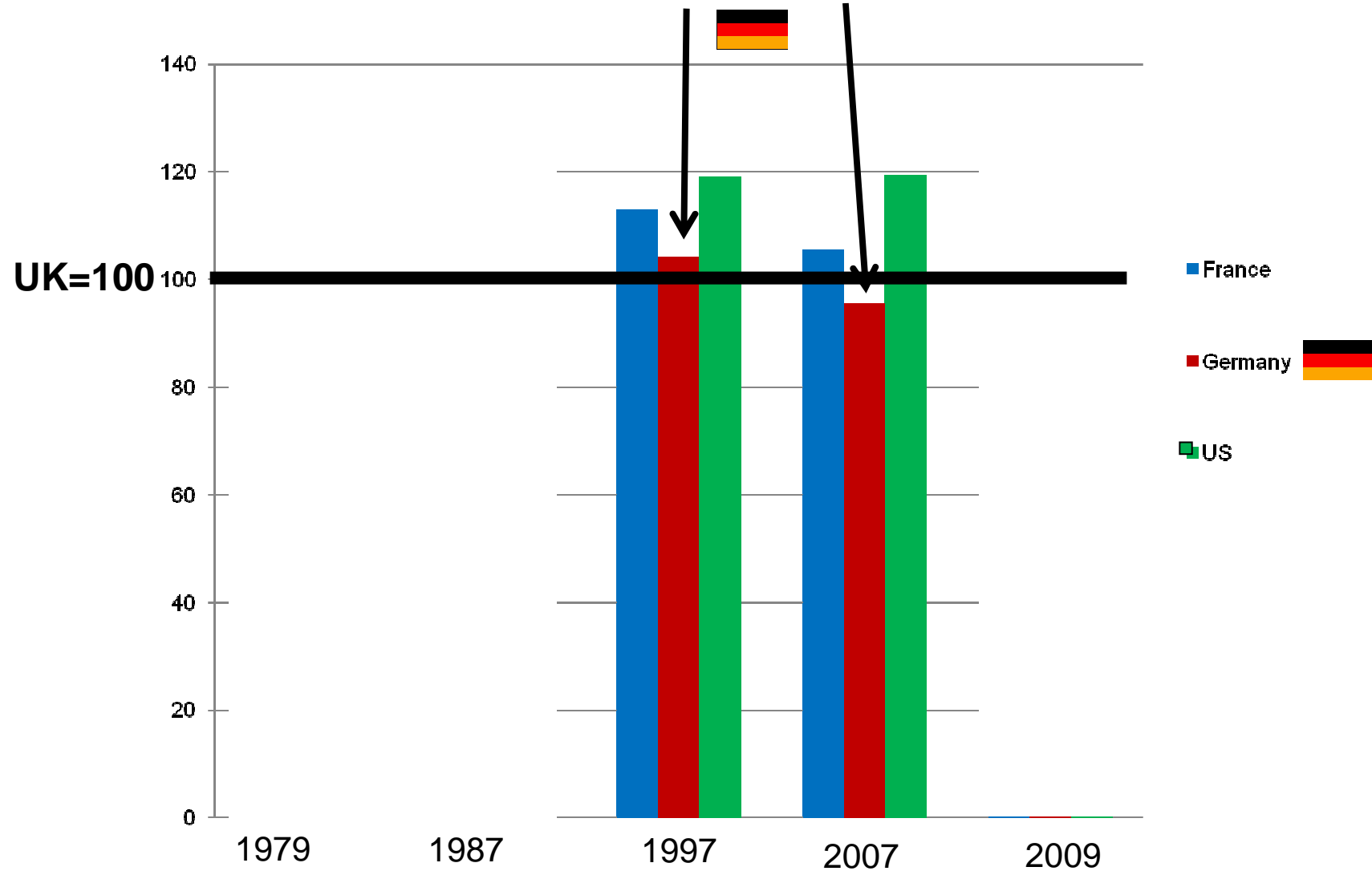
# GDP PER WORKER RELATIVE TO UK IN US, FRANCE & GERMANY (UK=100), 1979-2009



**Source:** Conference Board (2010), PPPs

# UK RELATIVE GDP PER WORKER: GERMANY

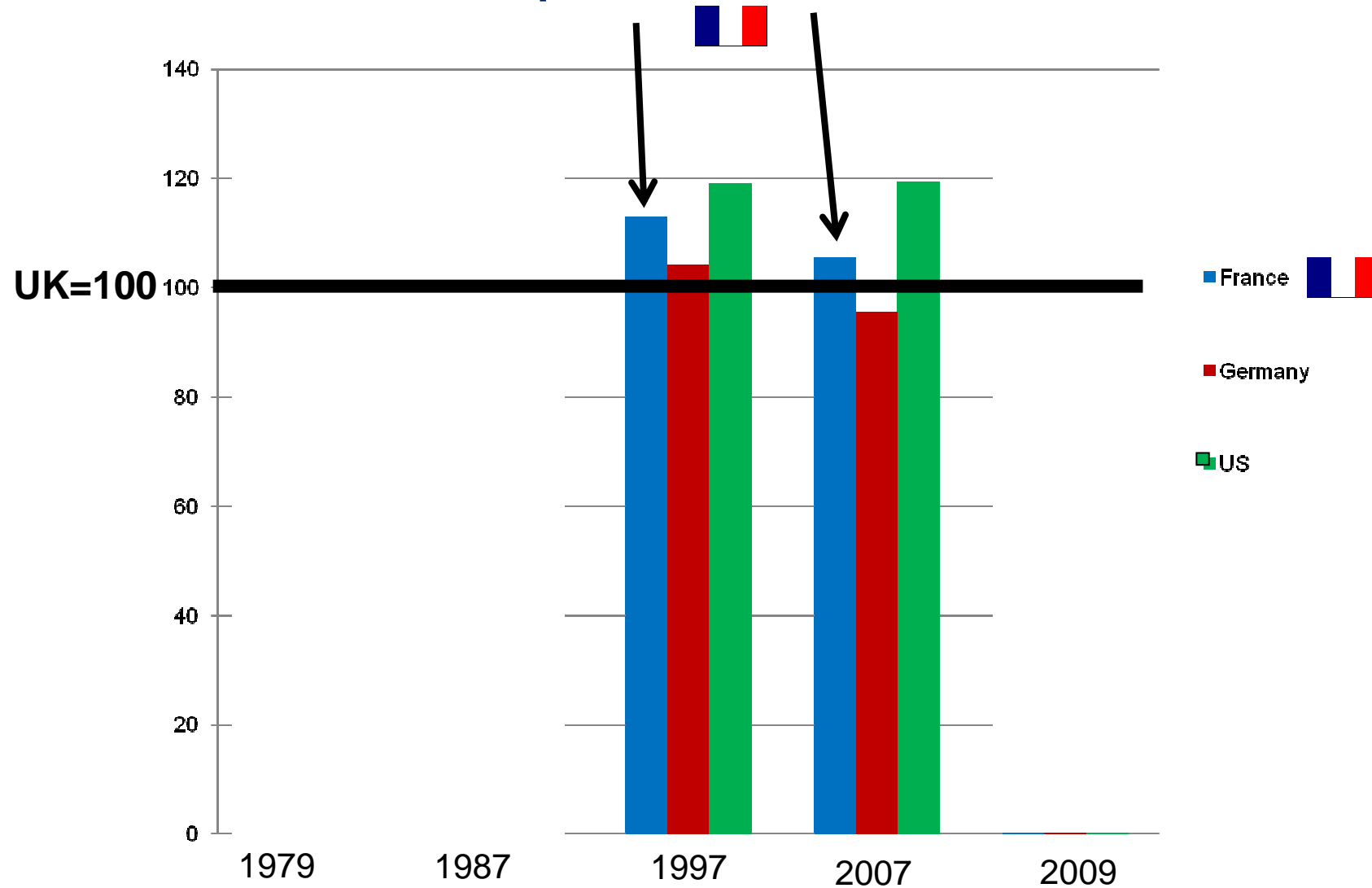
UK Gap with Germany reverses from -4% to +7%



Source: Conference Board (2010), PPPs

# UK RELATIVE GDP PER WORKER: FRANCE

UK Gap with France falls from -13% to -10%

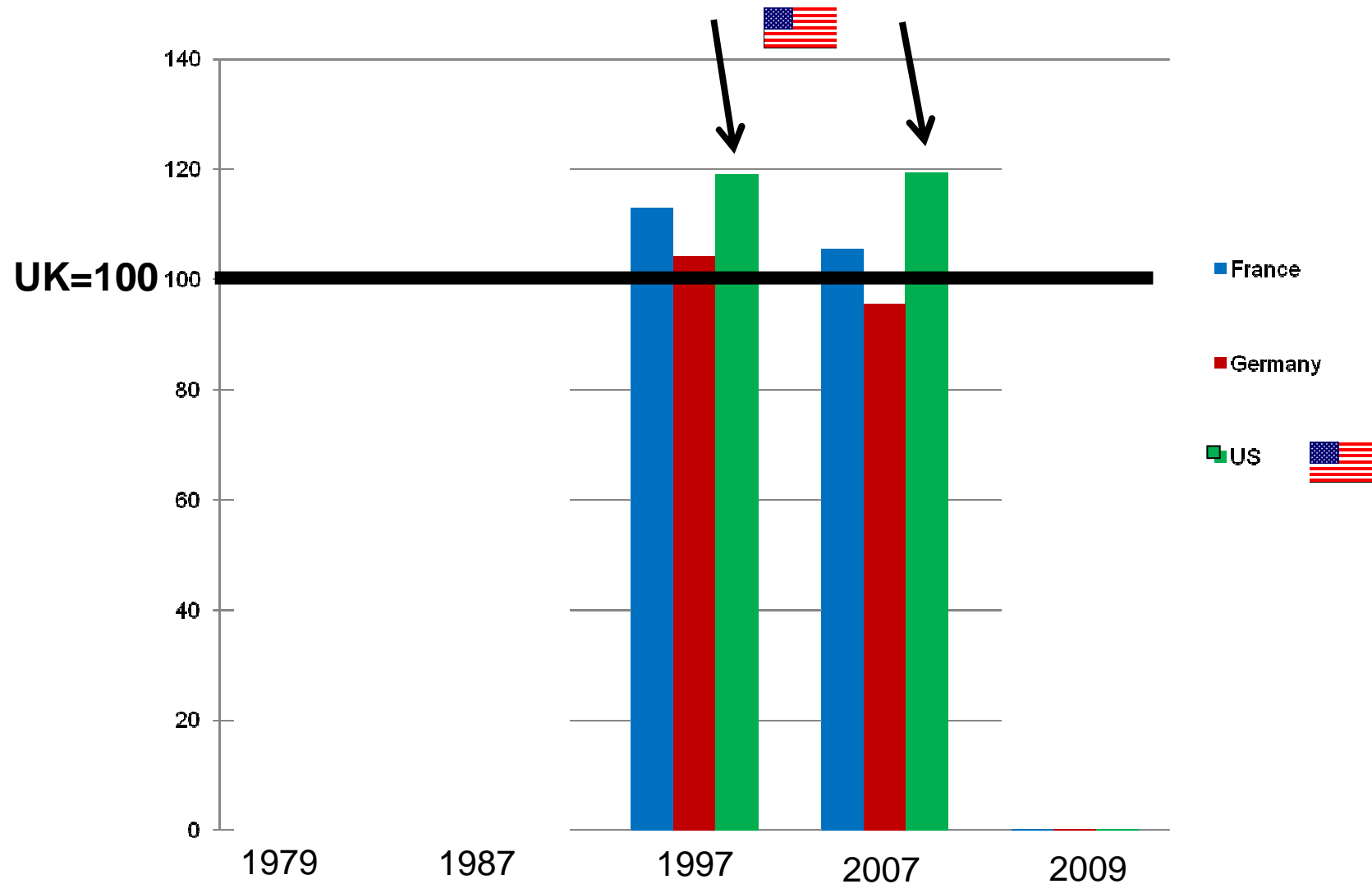


**Source:** Conference Board (2010), PPPs



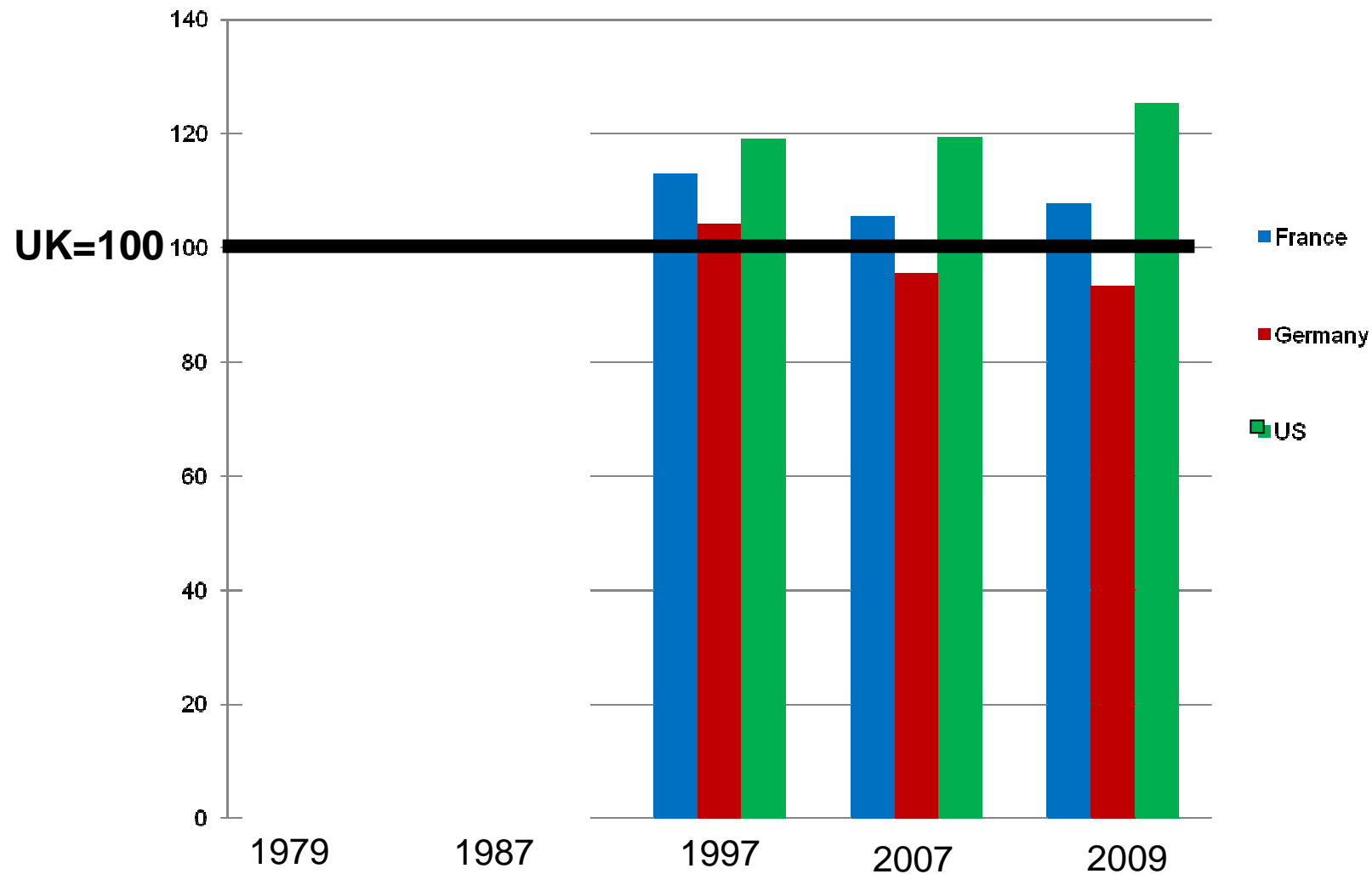
# UK RELATIVE GDP PER WORKER: US

UK Gap steady with US which had a “productivity miracle”



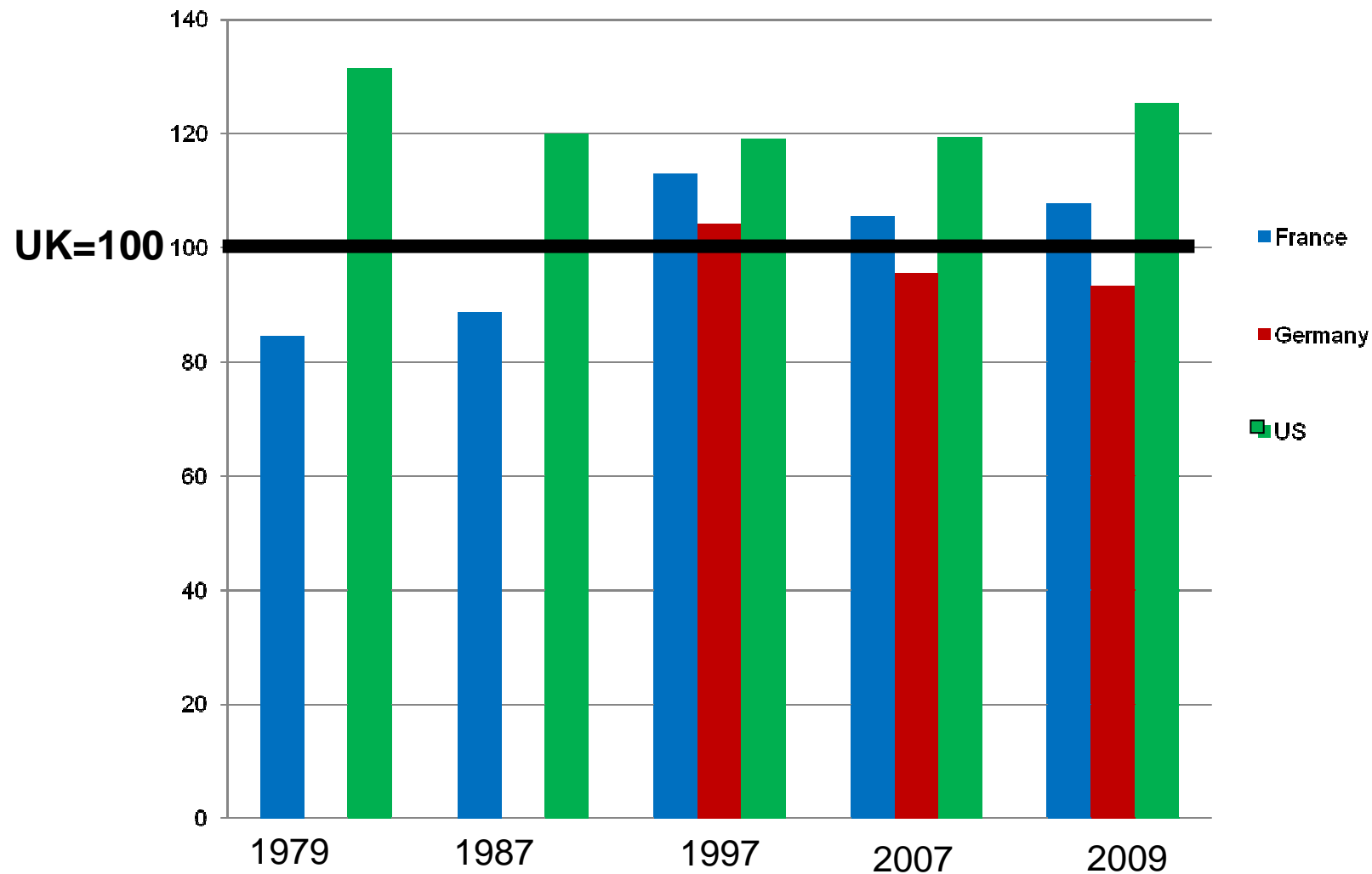
Source: Conference Board (2010), PPPs

# GDP PER WORKER RELATIVE TO UK IN US, FRANCE & GERMANY (UK=100), 1979-2009



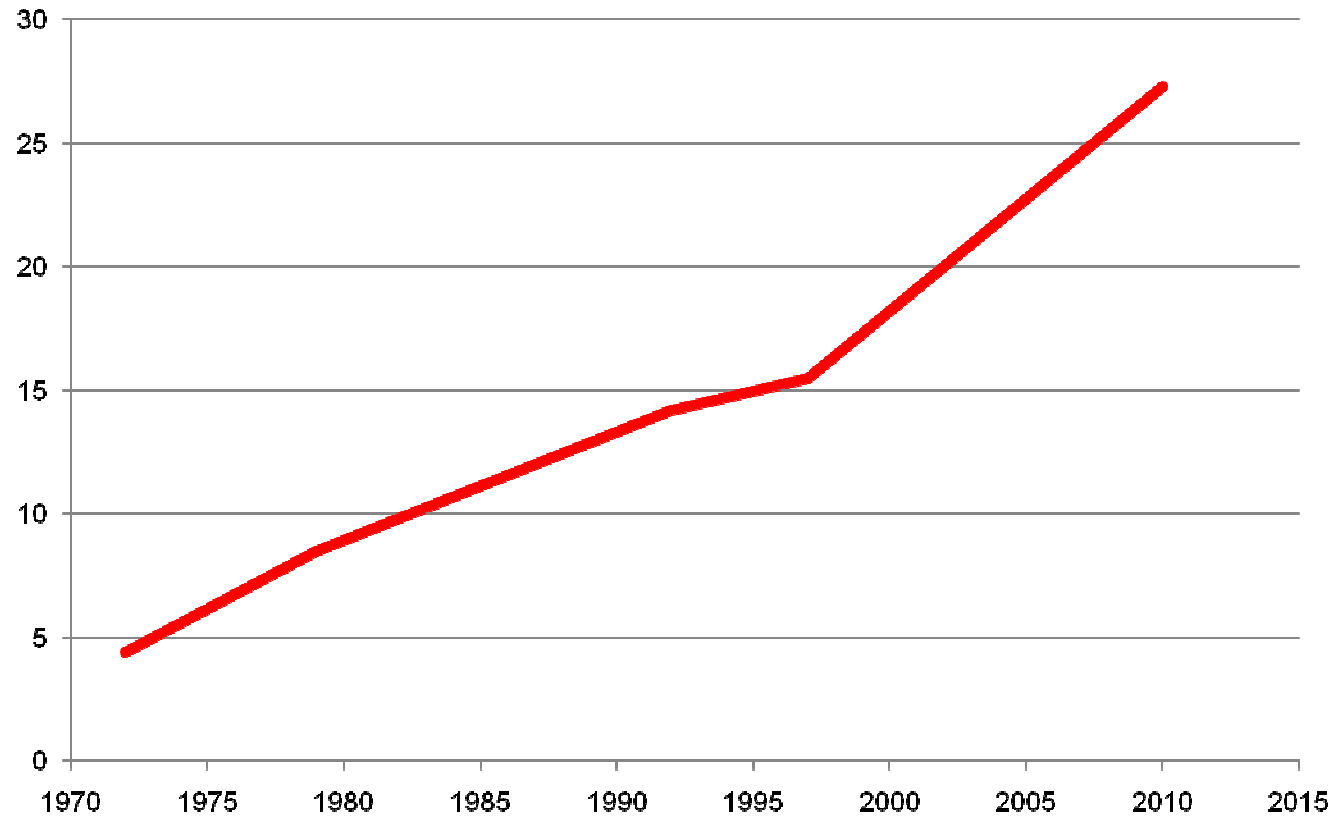
**Source:** Conference Board (2010), PPPs

# GDP PER WORKER RELATIVE TO UK IN SELECTED NATIONS (UK=100), 1979-2009



**Source:** Conference Board (2010), PPPs

## PROPORTION OF UK WORKERS WITH A COLLEGE DEGREE ROSE BY 12 PERCENTAGE POINTS 1997-2010



**Source:** GHS and Labour Force Survey, Various years

# OUTLINE

1. International Comparisons: How is the UK doing?

**2. Why is there still a productivity gap?**

- **Technological Innovation**
- Management Practices

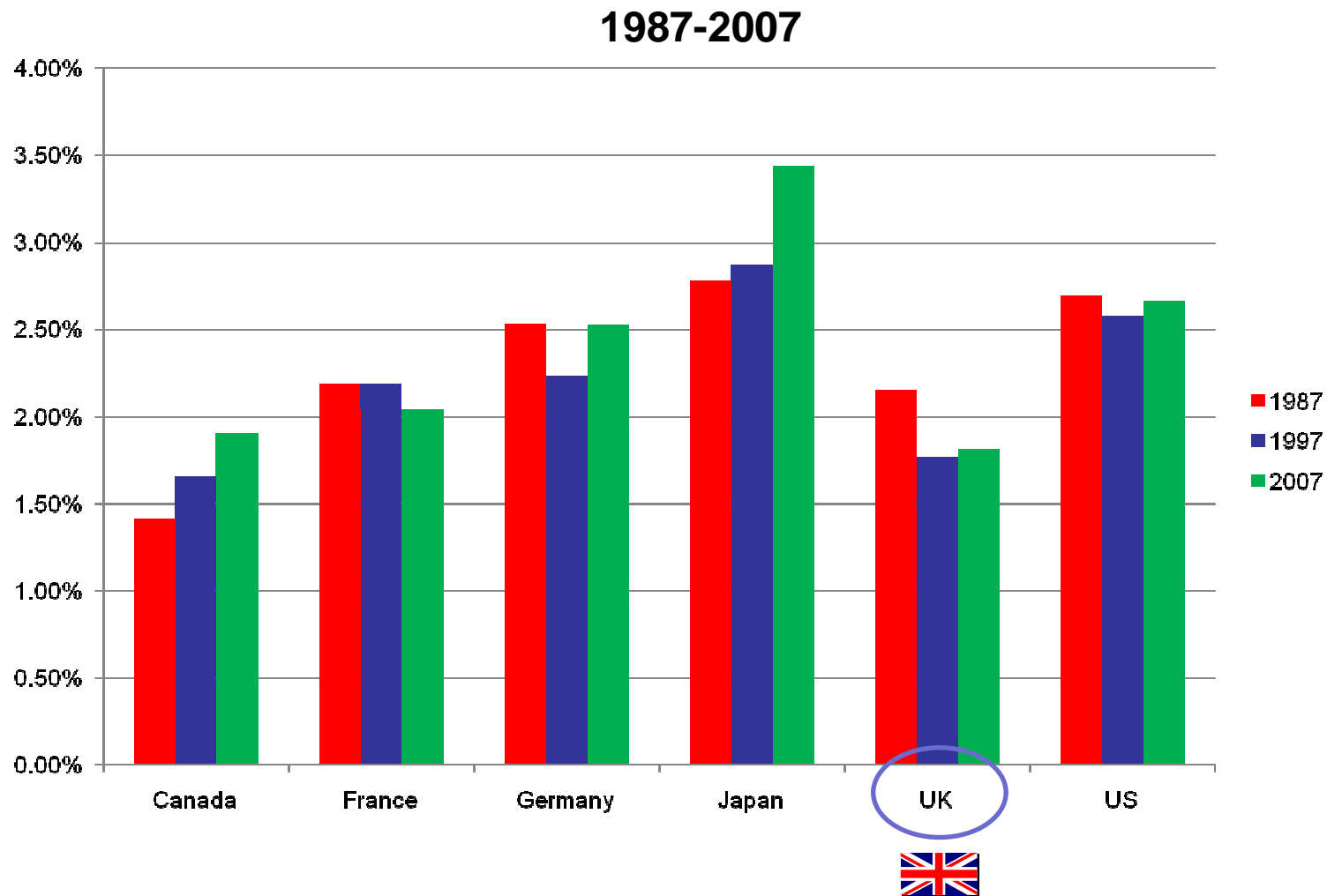
3. Short-Run policies: Alternatives to Extreme Austerity

4. Long Run Growth: The V-Plan

# IS TECHNOLOGICAL INNOVATION THE CAUSE OF PRODUCTIVITY GAP WITH THE US ?

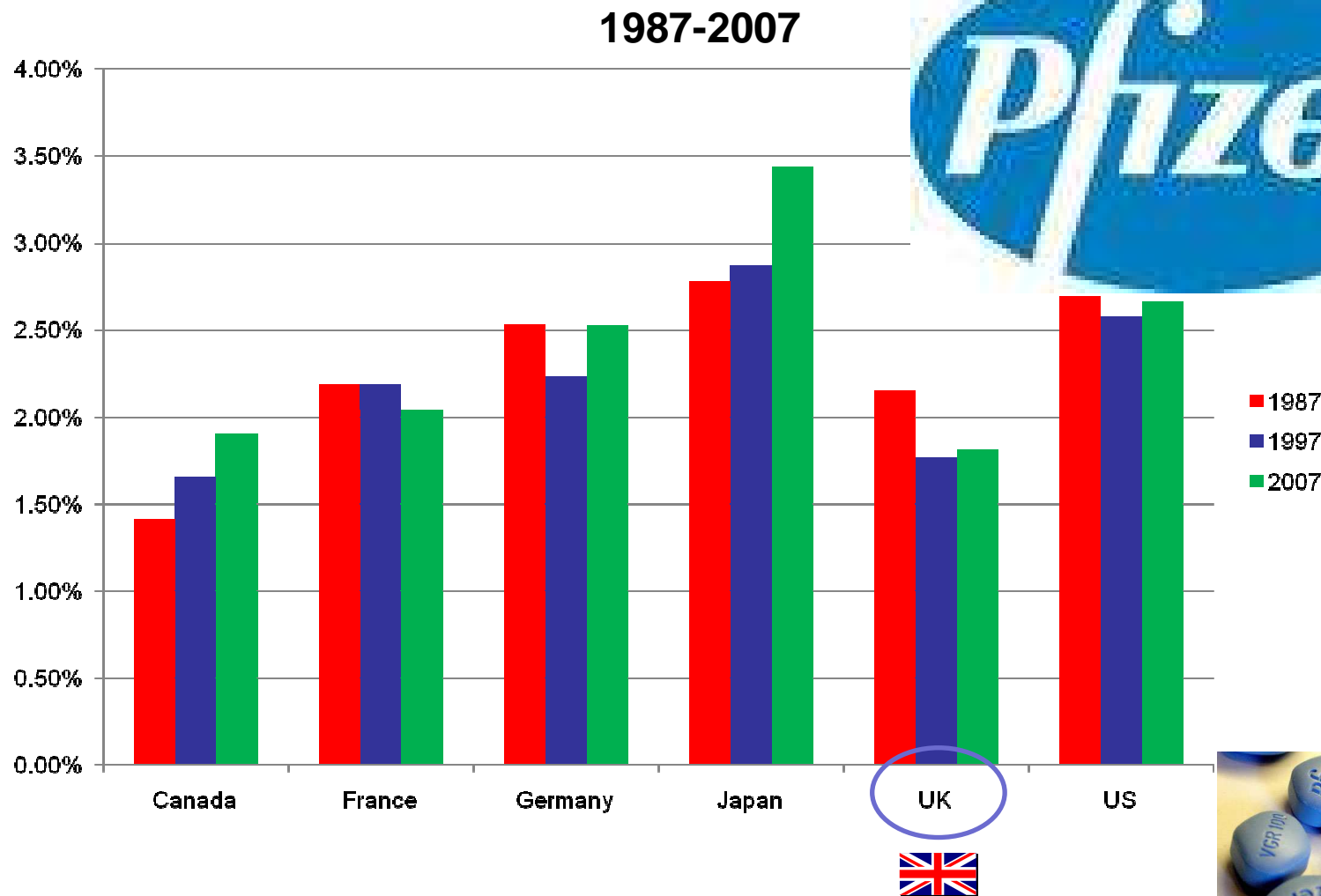
- Partially correct - UK has innovation deficit
- Although universities/basic science strong.....
  - 14% of all top scientific papers in world (2nd only to US) with ~1% of world's population
- ....**Commercialization** of innovation is weak: Research & Development (R&D), Patenting, etc.

# RESEARCH AND DEVELOPMENT (R&D) AS A % OF GDP



Source: OECD (GERD/GDP)

# RESEARCH AND DEVELOPMENT (R&D) – BUT WHAT ABOUT 2011?



Source: OECD (GERD/GDP)



# OUTLINE

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- Technological Innovation
- **Management Practices**

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# INNOVATION A CAUSE OF PRODUCTIVITY GAP?

- Problem is not just “hard” technologies. Also problems with the way firms are **managed**.
- Technologies available globally - why do some countries/firms not use?
- Research Program with Nick Bloom (Stanford), Raffaella Sadun (Harvard) & CEP team
  - How to measure, quantify and compare management across firms and countries?

# THE SURVEY METHODOLOGY

## 1) Developing management questions

- Scorecard for 18 monitoring, targets and people
- ~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, RBI, HMT, etc.
- Run by 75 MBA types (loud, assertive & business experience)

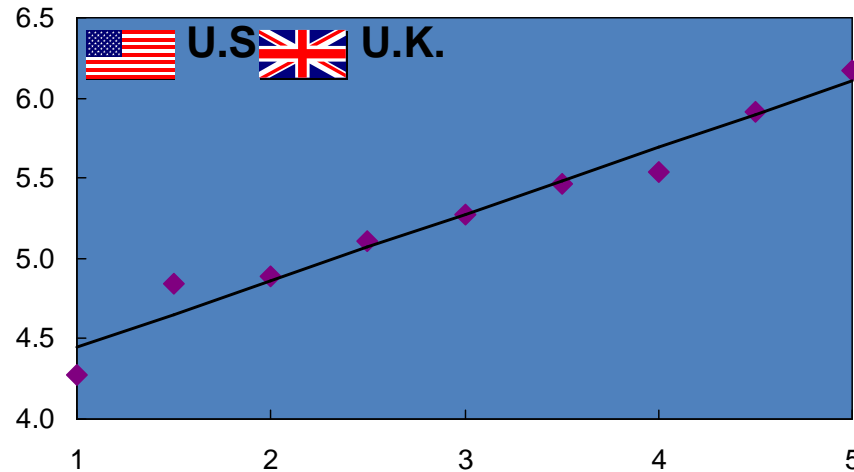
## **INCENTIVES - e.g. “*HOW DOES THE PROMOTION SYSTEM WORK?*”**

<b>Score</b>	<b>(1) People are promoted primarily upon the basis of tenure</b>	<b>(3) People are promoted upon the basis of performance</b>	<b>(5) We actively identify, develop and promote our top performers</b>
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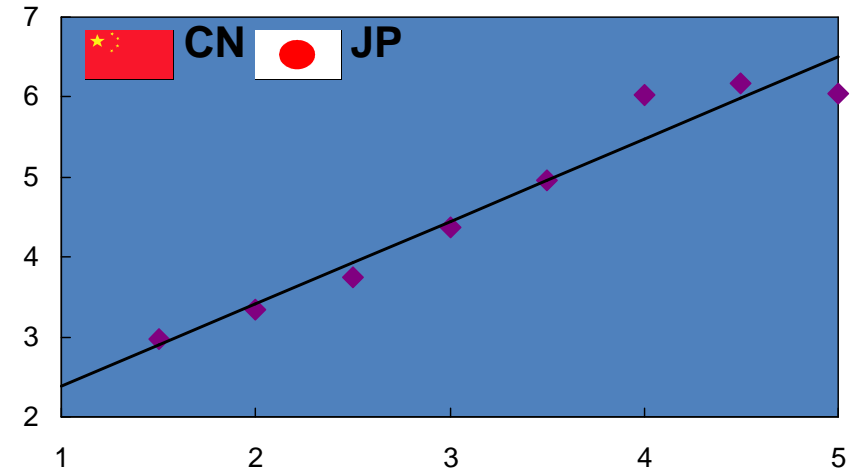
**Note:** All 18 dimensions and over 50 examples in Bloom & Van Reenen (2006)

# THE LINK BETWEEN PRODUCTIVITY AND MANAGEMENT HOLDS TRUE ACROSS DIFFERENT COUNTRIES

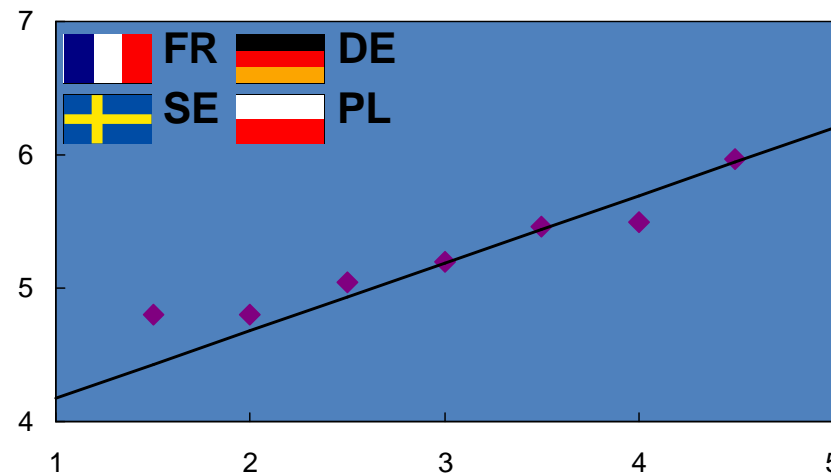
Labour productivity\*



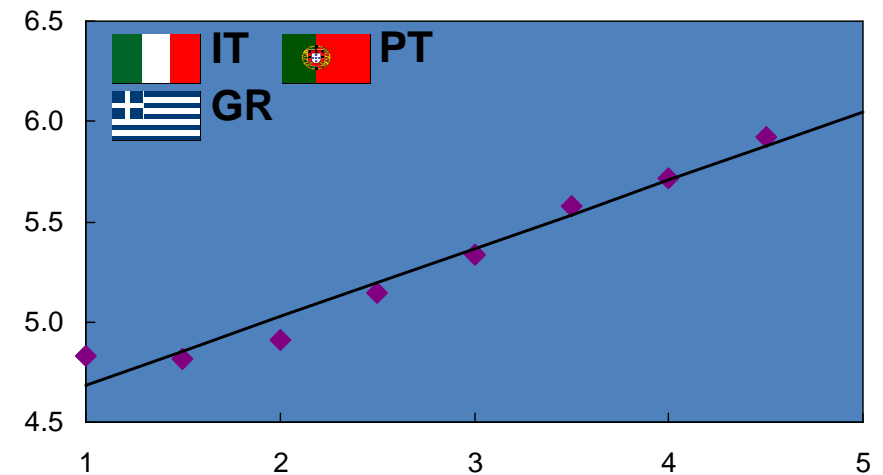
Labour productivity\*



Labour productivity\*



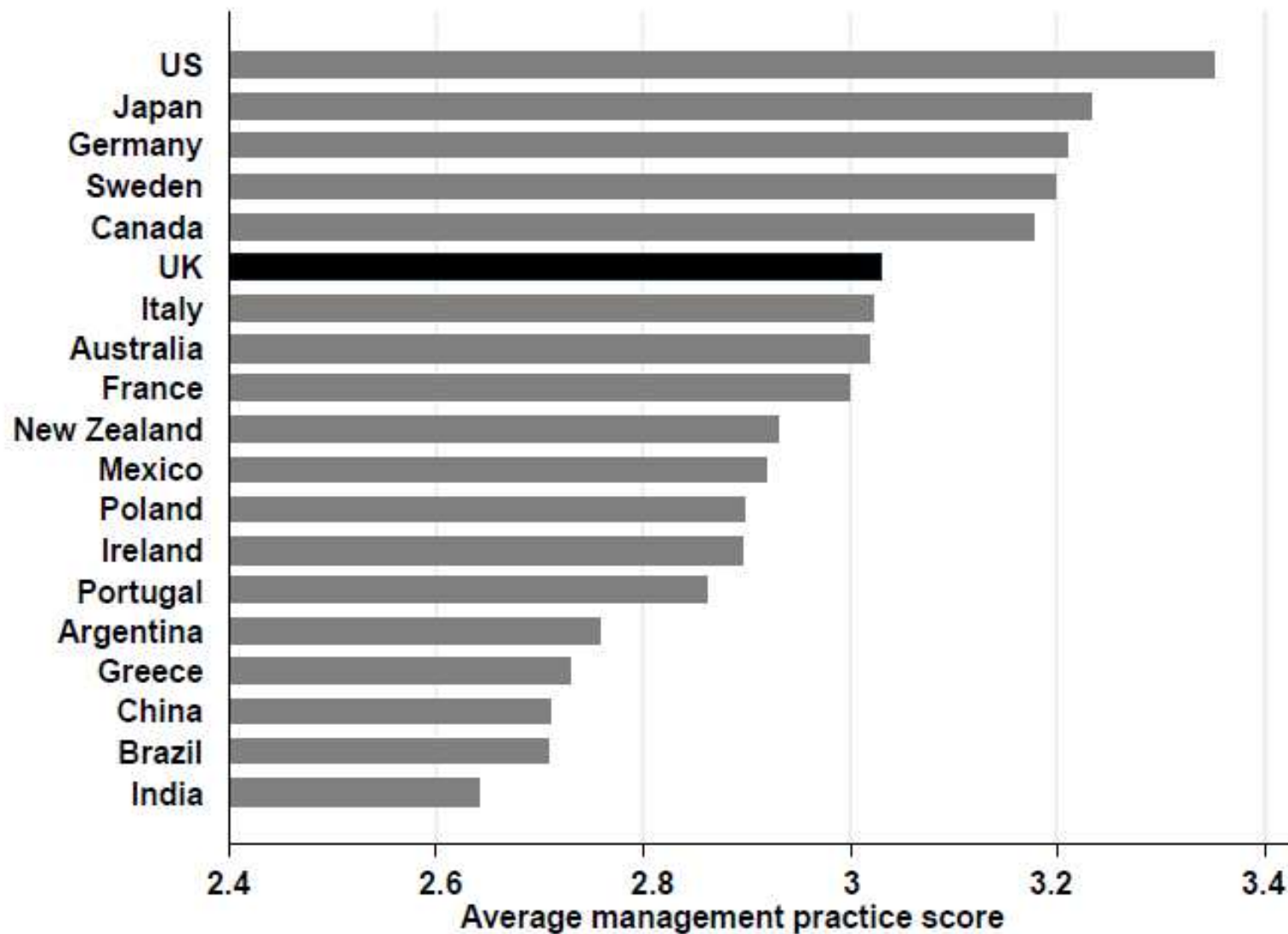
Labour productivity\*



\* Log scale (sales per worker)

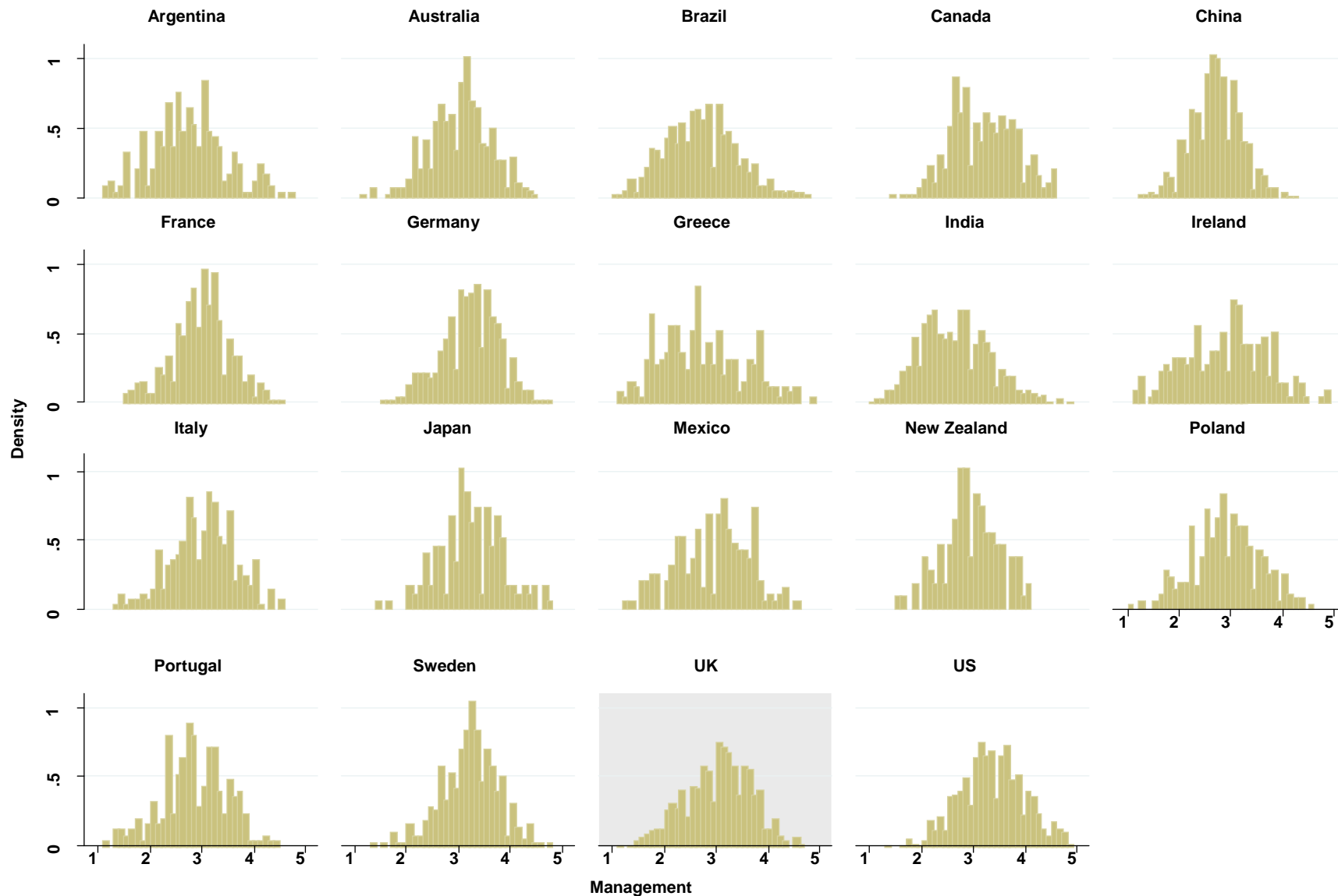
\*\* Firms are grouped in 0.5 increments of assessed management score

## UK MANAGEMENT MID-TABLE BY INTERNATIONAL STANDARDS



**Note:** Based on 8,261 management interviews between 2006 and 2010. We pool across multiple survey waves to maximize the extent of cross-country management comparison

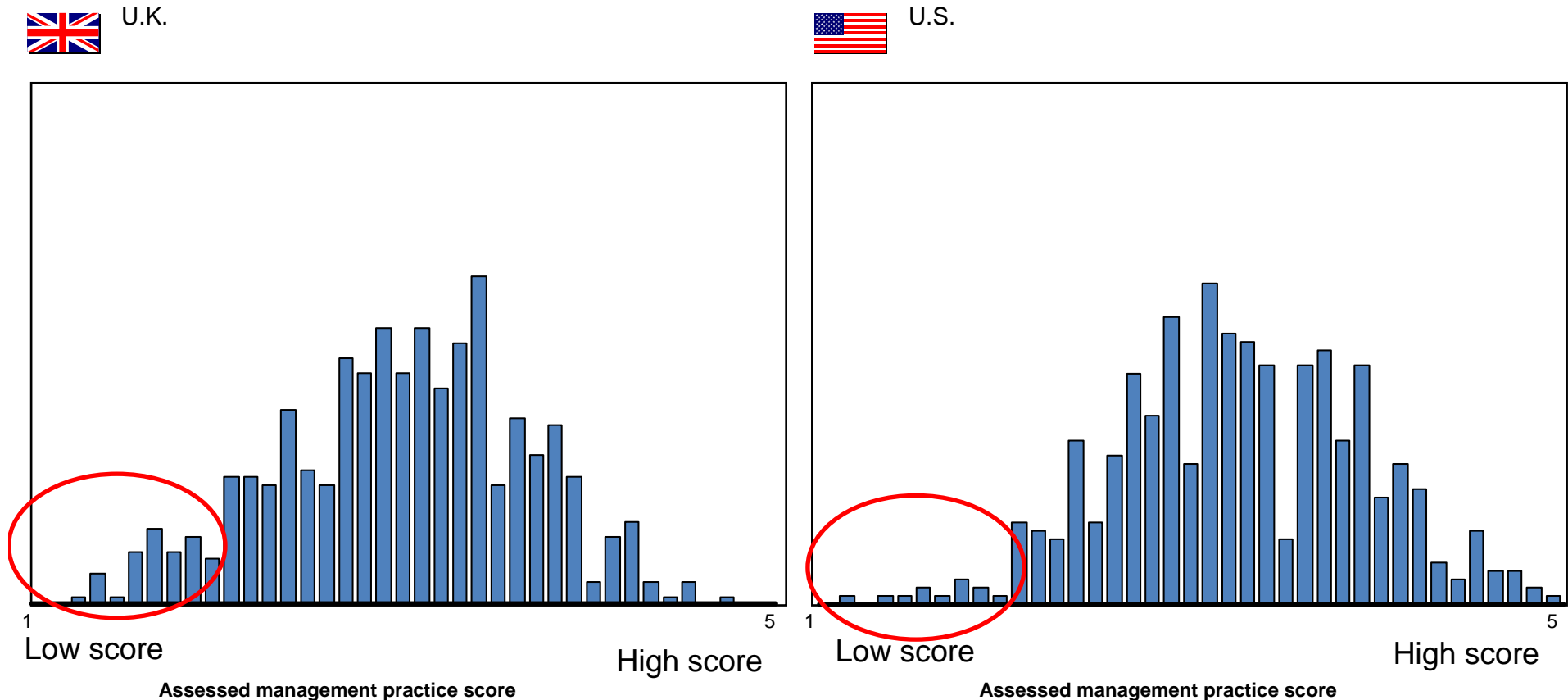
# HUGE VARIATION OF MANAGEMENT PRACTICES ACROSS FIRMS WITHIN ALL COUNTRIES



**Note:** Based on 8,261 management interviews between 2006 and 2009.

# MUCH OF THE CROSS-COUNTRY DIFFERENCES DUE TO THE “LOWER TAIL” OF BADLY MANAGED FIRMS

Distribution of firm level management practice scores





## MY FAVOURITE QUOTES:

### The traditional British Chat-Up

[Male manager speaking to an Australian female interviewer]

*Production Manager:* “Your accent is really cute and I love the way you talk. Do you fancy meeting up near the factory?”

*Interviewer* “Sorry, but I’m washing my hair every night for the next month....”

## MY FAVOURITE QUOTES:

### The traditional Indian Chat-Up

*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”

# WHAT IMPROVES MANAGEMENT? COMPETITION

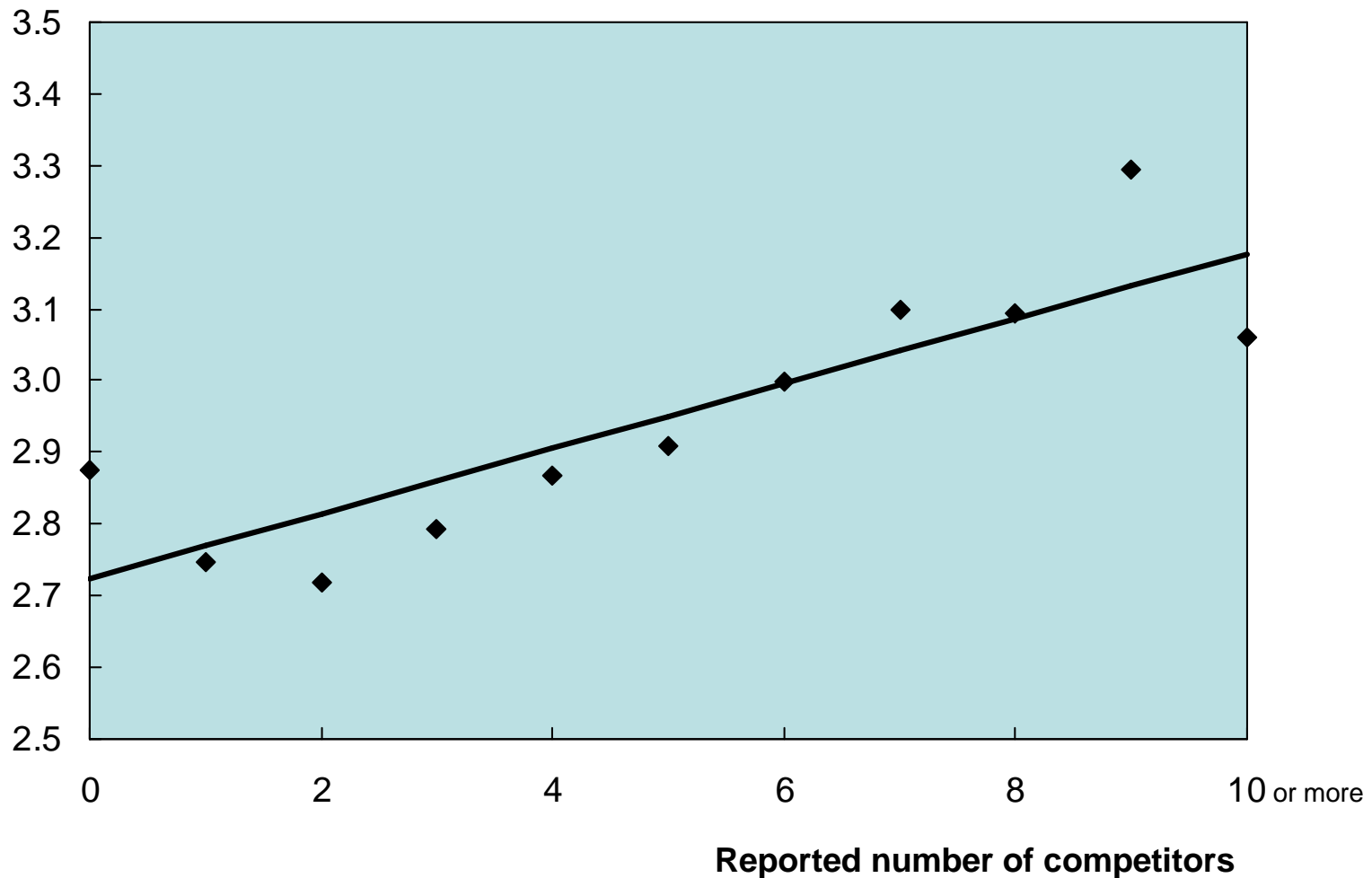
Various ways that competition may influence management

- Selection – badly run firms more likely to exit
- Effort – forces badly run firms to try harder to survive

We find competition is strongly linked with better management through a mixture of selection & effort

# MORE COMPETITION IS ASSOCIATED WITH BETTER MANAGEMENT PRACTICES

Assessed management practice score



# WHAT HURTS GOOD MANAGEMENT? FAMILY FIRMS RUN BY ELDEST SON, GRANDSON, ETC.

Impact of family firms depends on involvement

- Ownership but not management probably positive
  - Concentrated ownership so better monitoring
- Management probably negative
  - Smaller pool to select CEO from
  - Possible “Carnegie” effect on future CEO’s
  - Less career incentive for non-family managers

# FAMILY FIRMS AND GOVERNMENT FIRMS HAVE WORST MANAGEMENT

Average score on 18 management practice questions



Note: Sample of 4,221 medium-sized manufacturing firms. The bottom bar-chart only covers the 3696 firms which have been in the same ownership for the last 3 years. The "Other" category includes venture capital, joint-ventures, charitable foundations and unknown ownership.

# **SUMMARY OF DETERMINANTS OF MANAGEMENT (& PRODUCTIVITY)**

- Product market competition
  - Meritocratic CEO selection
  - Human Capital
- 
- These account for almost all of the management gap between UK and US

## **BUT DOES MANAGEMENT REALLY CAUSE HIGHER PRODUCTIVITY? BLOOM ET AL (2011)**

- Run experiment on plants in Indian textile firms outside Mumbai
- Randomized “treatment” plants get heavy management consulting; “control” plants get very light consulting (just enough to get data)
- Collect weekly performance data on all plants from 2008 to 2010
  - Improved management practices led to large and significant improvements in productivity and profitability (~\$200k pa)



# MANY PARTS OF THE FACTORIES ARE DIRTY AND UNSAFE



# THE TREATED FIRMS INTRODUCED BASIC INITIATIVES (CALLED “5S”)

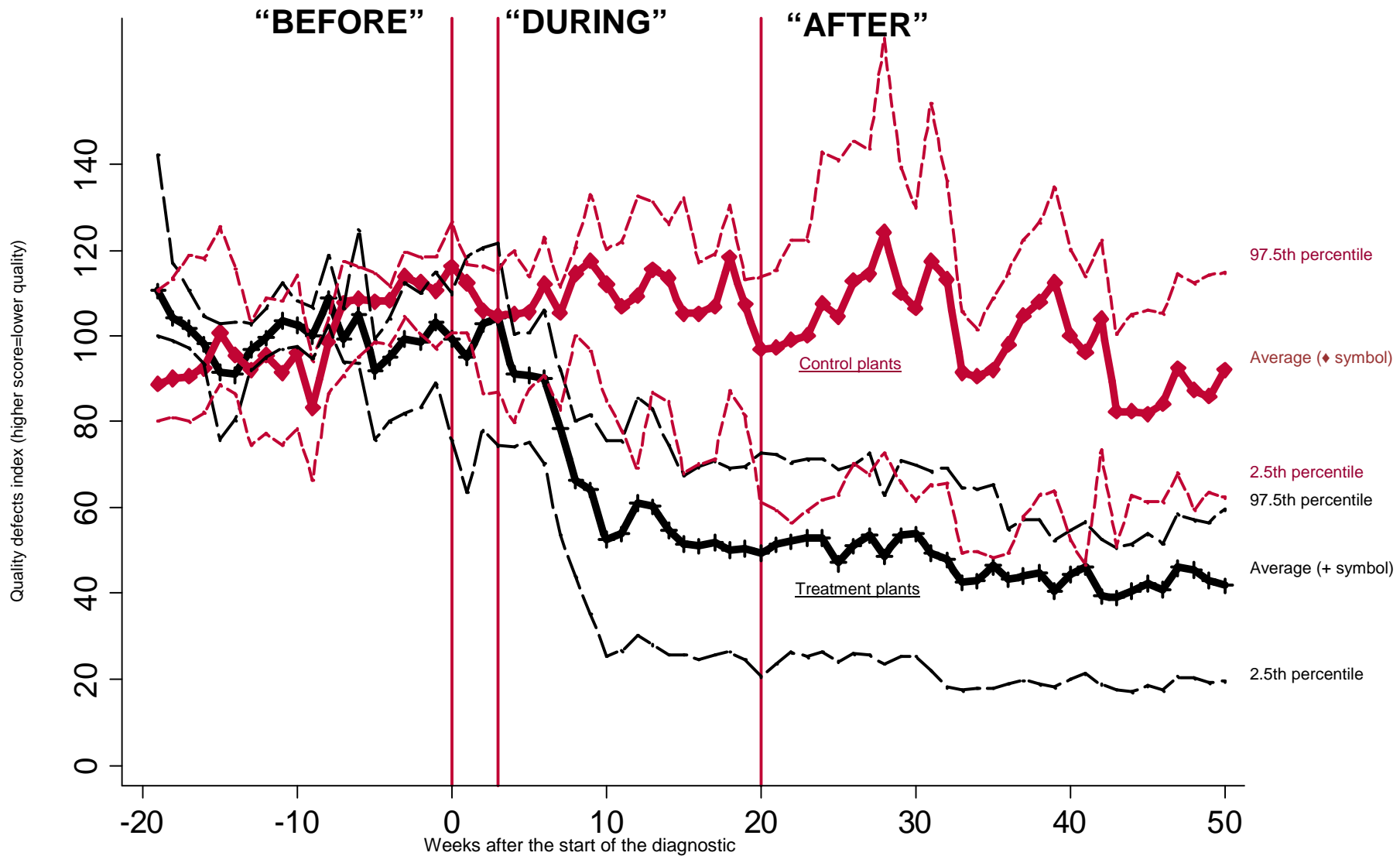
Worker involved in 5S initiative on the shop floor, marking out the area around the model machine



Snag tagging to identify the abnormalities on & around the machines, such as redundant materials, broken equipment, or accident areas. The operator and the maintenance team is responsible for removing these abnormalities.



# QUALITY DEFECTS INDEX: TREATMENT & CONTROL PLANTS



Notes: Displays the average weekly quality defects index, which is a weighted index of quality defects, so a higher score means lower quality. This is plotted for the 14 on-site treatment plants (+ symbols) and the 6 on-site control plants (♦ symbols). Values normalized so both series have an average of 100 prior to the start of the intervention. To obtain confidence intervals we bootstrapped the firms with replacement 250 times.

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  - Management Practices

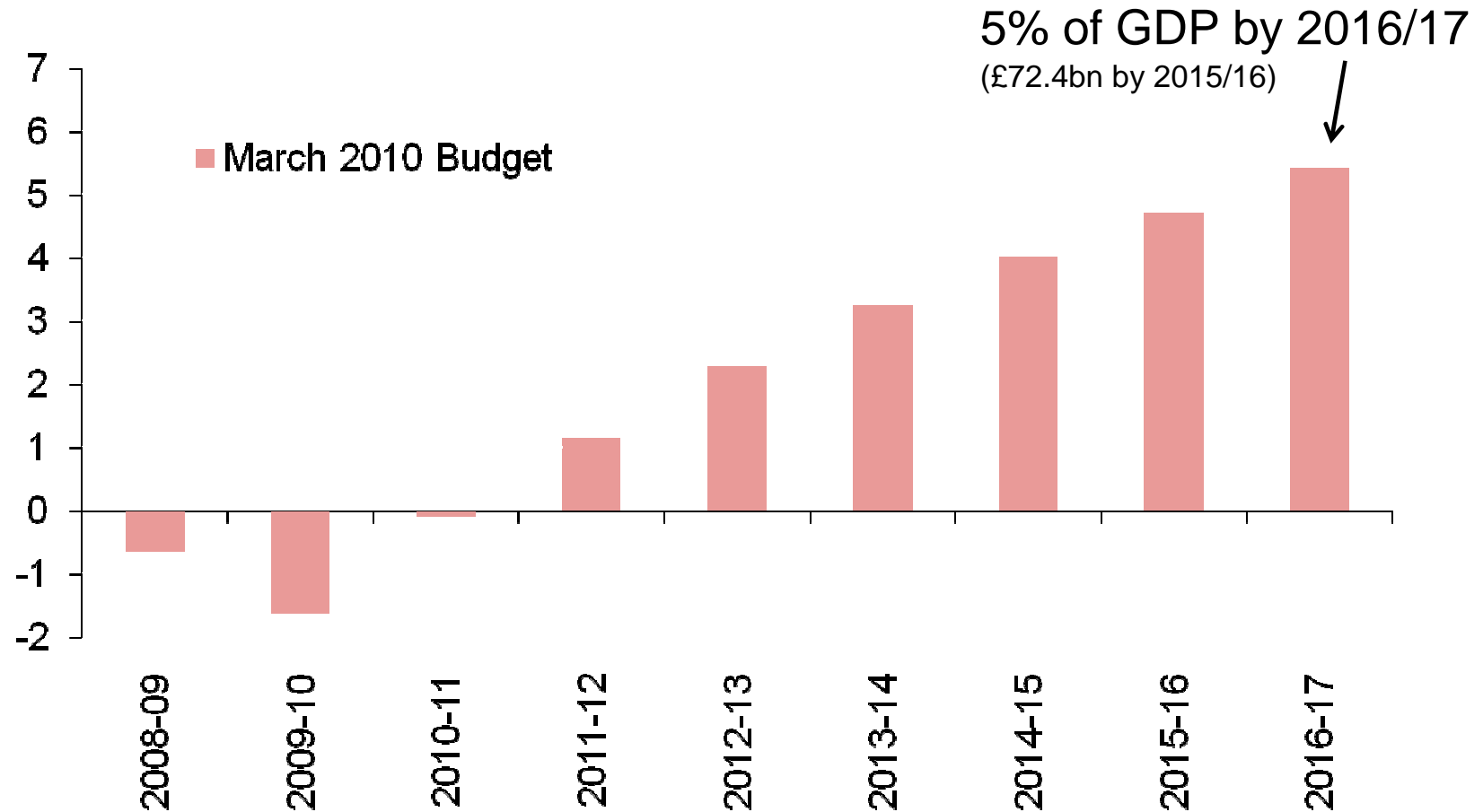
<b>3. Short-Run policies: Alternatives to Extreme Austerity</b>
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4. Long Run Growth: The V-Plan

## THREE DIFFERENT VIEWS OF GROWTH

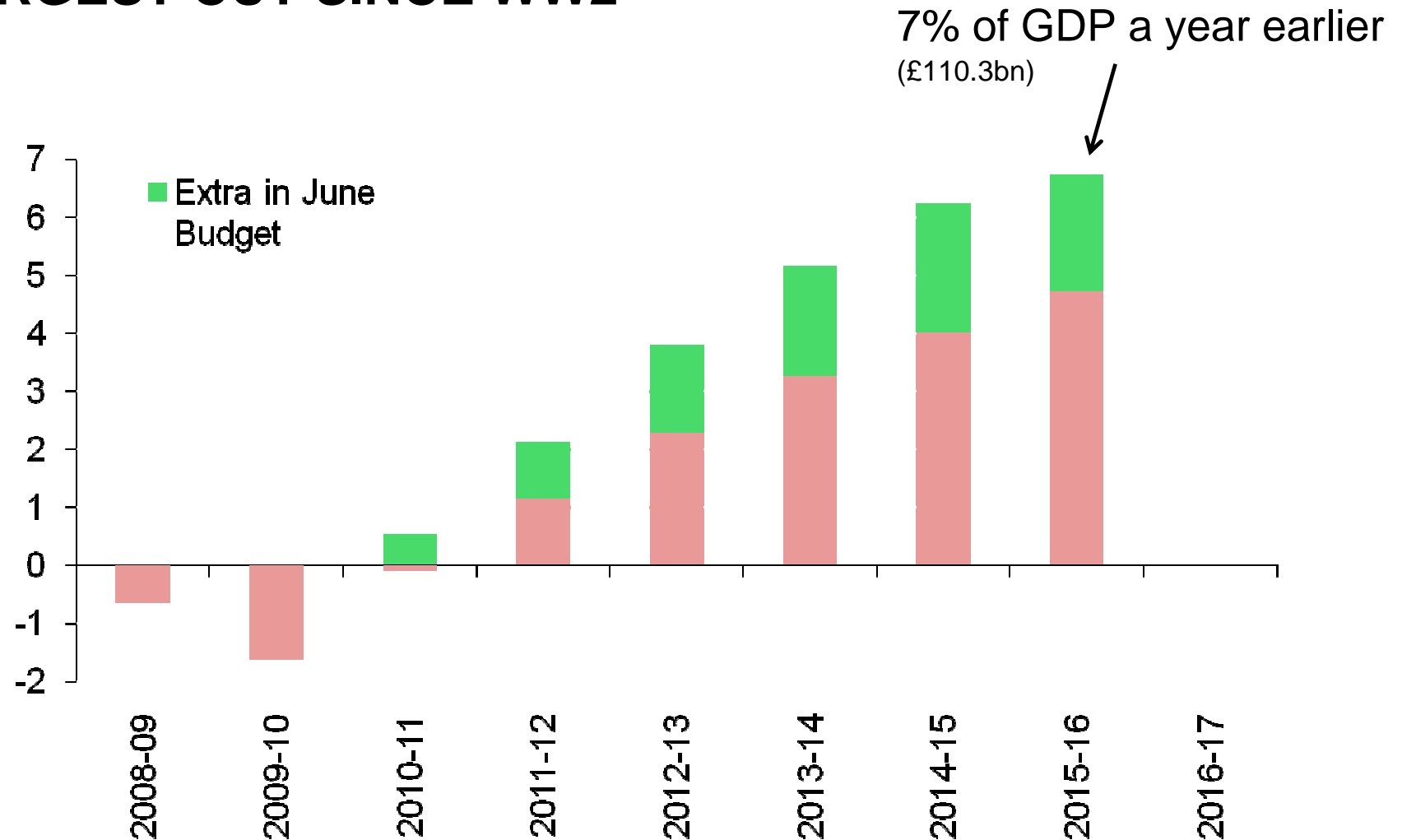
- **Right: Shrink state & let markets flourish**
  - Thatcherism and Osborne-ism?
  - But markets needs some intervention (e.g. Competition policy)
- **Left: Top down plans**
  - NHS Target-ism
  - Untargeted expansion of demand
- **Alternative: The Enabling State**
  - Market failures (e.g. Innovation, climate change, etc.)
  - Stimulate through targeted investing (e.g. Innovation, human capital, infrastructure)

# AUSTERITY – LABOUR’S PLANS FOR FISCAL TIGHTENING IN MARCH 2010



Source: IFS, HMT

# EXTREME AUSTERITY – JUNE EMERGENCY BUDGET. LARGEST CUT SINCE WW2



Source: IFS, HMT

## ACCELERATED AUSTERITY

- Government borrowing/GDP
  - 2010-2015 reduction 3<sup>rd</sup> highest in OECD (29 richest nations).
  - Level in 2010 also 3<sup>rd</sup> (US and Ireland higher)

	2007/8	2009/10
Total government spending/GDP	41%	47.6%
Total government receipts/GDP	38.6%	37.2%
Budget deficit	2.4%	10.4%

- Spending out of control? No: GDP fell dramatically



## **FEATURES OF ACCELERATED AUSTERITY**

- **Choice of government spending/GDP of 40%**
  - 43% 1970/1 - 2008/9 average
- **Assumes a large permanent fall in GDP?**
  - Unknown. Ranges from 2% to 10%
  - Ignores some productivity improvements
- **Serious costs of frontloading cuts**
  - Withdrawal of demand risks recovery
  - Scrapping of human and fixed capital (e.g. Chris Pissarides & long-term unemployment)
    - A pessimistic view of UK capacity becomes a self-fulfilling prophecy

## **BENEFITS OF ACCELERATED AUSTERITY?**

- **UK has unsustainable debt?**
  - Debt “crisis” exaggerated
    - Historically moderate (42% in 2006;79% 2011;av=118%)
    - Long maturity
    - No formal default
- **Credibility & Confidence**
  - Gives reassurance to irrational bond markets?
  - Surely better to deliver a realistic good plan than fail to deliver an unrealistic bad plan
- **Voters’ memory is short**

## **EXTREME AUSTERITY – THE NEED FOR A “PLAN B”**

- **Chancellor has argued against a Plan B**
- **Mervyn King & MPC to the rescue?**
  - Low interest rates
  - Inflation fears
- **If really in trouble we can always slow down**
  - Hard to fine tune
  - Given rhetoric, would lead to extreme loss of credibility
  - Better to move towards a sensible plan now
- **Need also to think long term “From Plan B to Plan V”**

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  - Technological Innovation
  - Management Practices
3. Short-Run policies: Alternatives to Extreme Austerity

## **4. Long Run Growth: The V-Plan**

## WHAT WE NEED IN A GROWTH PLAN

- **Getting external conditions right**
  - **Admit** we do not know exactly where new growth will come from
  - Get the **conditions** right so we can generate and exploit new ideas and areas for growth
- **Focus on sectoral growth areas....**
  - **Examples:** Universities; Healthcare; Business services; Green; ICT; Niche manufacturing, etc.
- **...where UK has comparative advantage & capability**
  - Market services, academic science-based (bio-pharma), creative sectors

## WHAT ARE THE CONDITIONS FOR GROWTH?

- **Product market Competition**
  - Competition policy, Trade policy, planning
  - Public sector (e.g. UK hospital reforms)
- **Taxation**
  - 100% Inheritance Tax exemption for family business assets encourages family firms not meritocratic CEO
  - Mirrlees Review: stability and simplicity, not level
- **Human Capital**
  - UK weak at lower end (e.g. EMA, Apprenticeships)
- **Innovation Policy & Tax regime** (later)
- **Financial markets** – Too Big to Fail issues

## AN EXAMPLE OF A GROWTH INDUSTRY: UNIVERSITIES

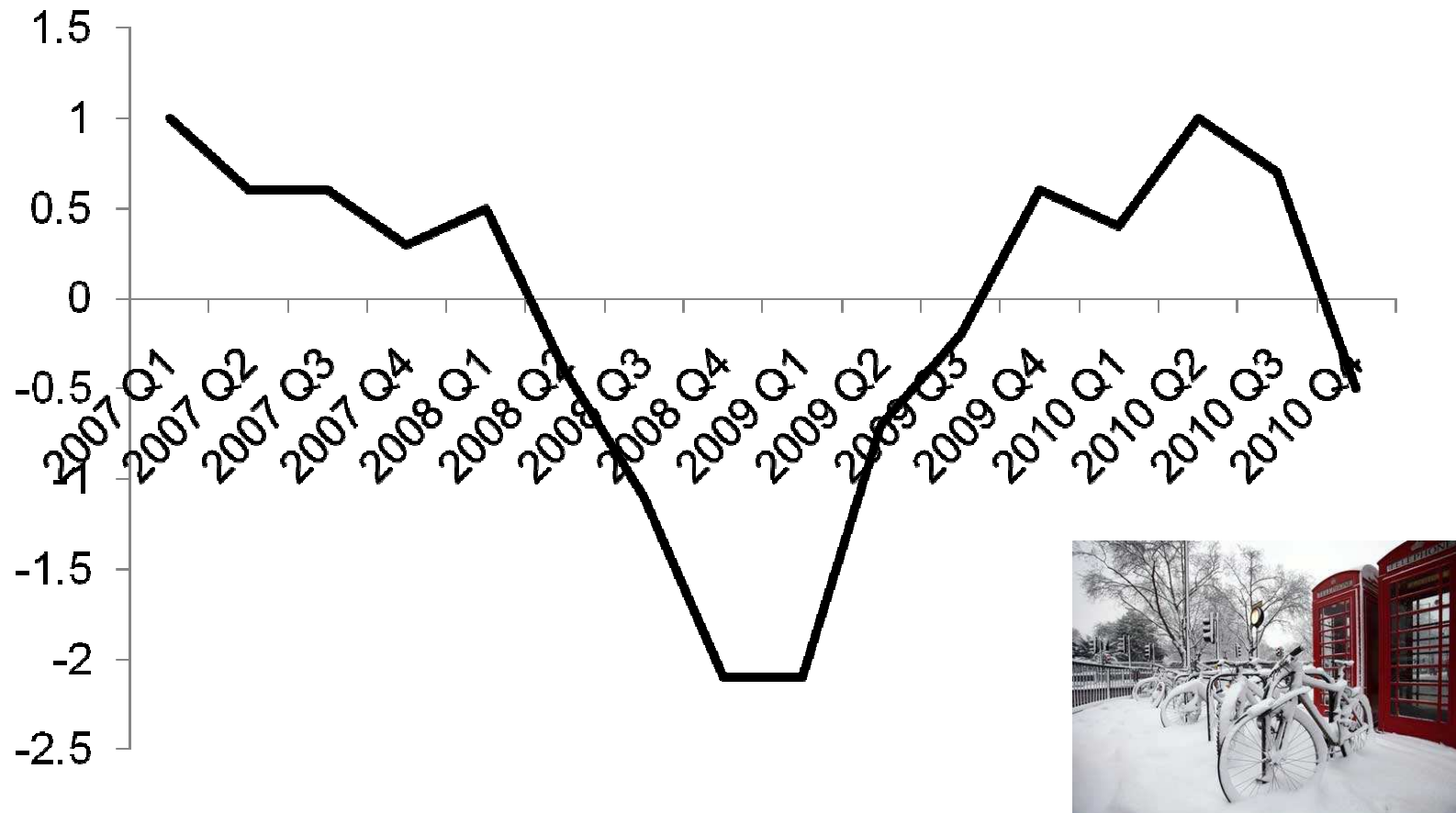
- **Current situation**
  - overseas students: globally from 0.5m (1980) to 3.3m (2010). Growing at ~7% pa (McKinsey, 2010)
  - UK research & share of overseas 2<sup>nd</sup> only to US.
  - **Opportunity:** US lost share 2000-2008 (24% to 18%); Australia 2009 due to immigration policy
- **Current Policies**
  - Reduce teaching subsidy to zero
  - Immigration target of 100,000 a disaster.
    - Discourages overseas students from UK
    - Harder to attract global academic talent
- *Explicitly anti-growth policies*

## EXAMPLE OF INNOVATION POLICY: R&D SUPPORT

- Failure in market for knowledge
  - Too little R&D because ideas are promiscuous
  - Social return to R&D 2x as big as private return
- R&D helps catch-up with technological leaders as well as pushing out technological frontier
- Abolish “Patent Box” policy costs £1bn+ & subsidises existing intellectual property not new ideas
- Put this money into R&D tax credit (under review) & support of basic research
- Maps of firm “distance” focus where UK has existing or potential strength
  - Technology, Geography, Product markets
  - Can focus directed efforts

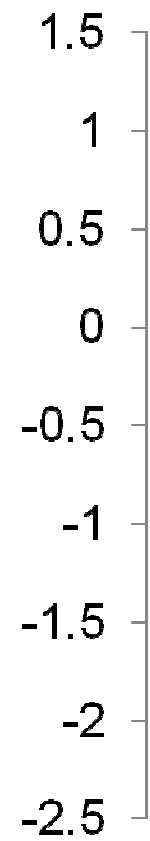


## BACK TO CURRENT GROWTH – UH-OH, LOOKS MORE LIKE “W” THAN “V”



**Source:** ONS (February 2011), Quarterly Growth of value added, seasonally adjusted

## BEFORE THE V-PLAN

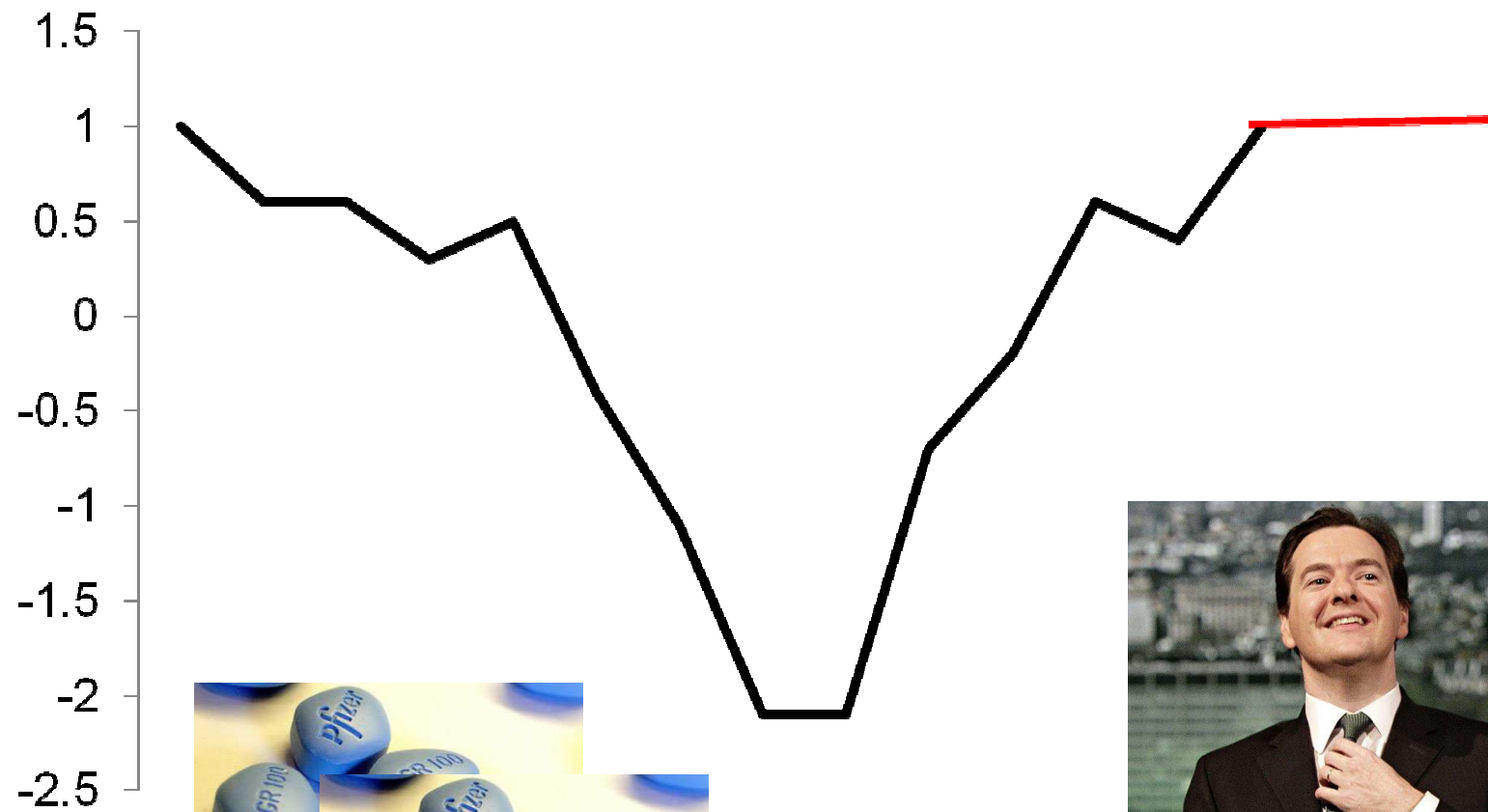


## DURING THE V-PLAN

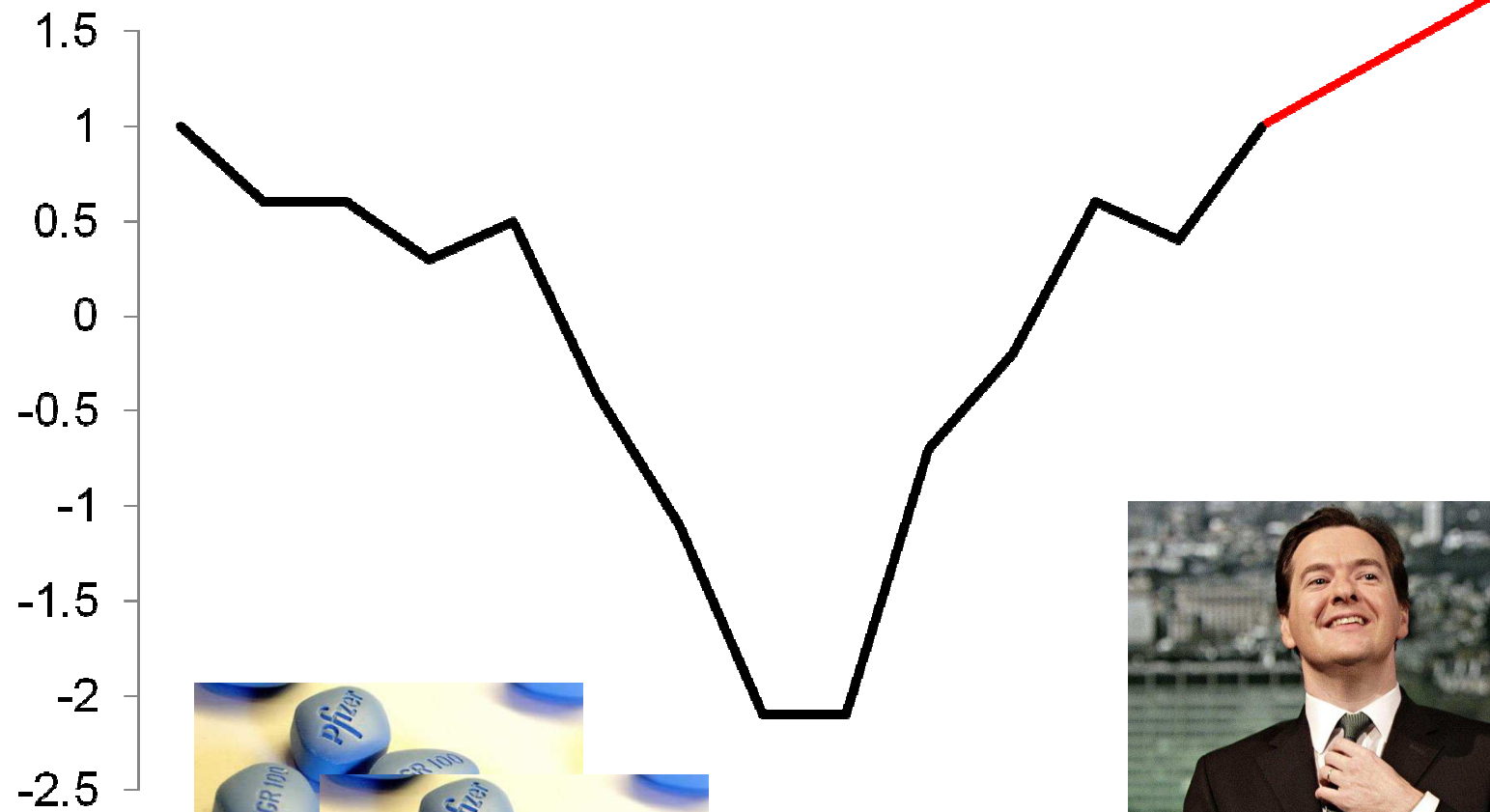
1.5  
1  
0.5  
0  
-0.5  
-1  
-1.5  
-2  
-2.5



# DURING THE V-PLAN



# AFTER THE V-PLAN



## CONCLUSIONS

- Sources of productivity growth are innovation (well-studied) and management (less studied)
- Extreme austerity a political choice not economic necessity
  - Need a Plan B
- Management and innovation can be improved via reforms to competition, tax reform, universities, R&D
  - Need a Plan V
- You learn a lot from talking to people.....

## 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...”

# 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!”



# Further Reading

1. Bloom and Van Reenen (2007) "Measuring and Explaining Management practices across firms and nations" Forthcoming, *Quarterly Journal of Economics*, Centre for Economic Performance Discussion Paper No. 716 <http://cep.lse.ac.uk/pubs/download/dp0716.pdf>
2. Bloom, Sadun and Van Reenen (2007) "Americans do IT better" Centre for Economic Performance Discussion Paper No. 788 <http://cep.lse.ac.uk/pubs/download/dp0788.pdf>
3. Lisbon agenda [http://cep.lse.ac.uk/briefings/pa\\_lisbon\\_agenda.pdf](http://cep.lse.ac.uk/briefings/pa_lisbon_agenda.pdf)
4. UK productivity improvements : [http://cep.lse.ac.uk/briefings/pa\\_uk\\_productivity.pdf](http://cep.lse.ac.uk/briefings/pa_uk_productivity.pdf)

BACK-UP

## **SMALL FIRM OBSESSION?**

- **Cut small profits tax rate to 20% (from 21%)**
- Bank lending, tax credits, etc.
- Small firms create more jobs....
- ...but they also destroy more jobs
- Small firms are also less productive, pay lower wages, more likely to be badly managed, etc.
- Young firms do create more new jobs, but small ones per se do not
- Easier to get news headlines per government £1 spend

# WHAT IS PRODUCTIVITY AND WHY SHOULD WE CARE?

- *“Productivity isn’t everything, but in the long run it is almost everything” (Nobel Laureate Paul Krugman)*
- **Productivity growth**
  - Drives growth of real wages
  - Can facilitate redistribution
- Particularly important during current era of budgetary cutbacks

## **DOWNSIDES TO PRODUCTIVITY GROWTH?**

- **Poverty?**

- Absolute poverty tends to fall with growth (e.g. China, India)
- No evidence that faster productivity growth means more relative poverty/inequality

- **Happiness?**

- Growth doesn't guarantee happiness
- Wellbeing not all about consumption (e.g. environment)
- But big falls in consumption create misery

# WHAT IS LABOUR PRODUCTIVITY? 3 COMPONENTS OF GDP (NATIONAL INCOME) PER PERSON

Basic “welfare” measure

$$\frac{GDP}{Population} = \frac{GDP}{hours} \times$$

Labour  
productivity

# WHAT IS LABOUR PRODUCTIVITY? 3 COMPONENTS OF GDP (OR GNP) PER CAPITA

Basic “welfare” measure

Choice? Labour supply

$$\frac{GDP}{Population} = \frac{GDP}{hours} \times \frac{hours}{workers} \times \cdot$$

Labour productivity

# WHAT IS LABOUR PRODUCTIVITY? 3 COMPONENTS OF GDP (OR GNP) PER CAPITA

Basic “welfare” measure

$$\frac{GDP}{Population} = \frac{GDP}{hours} \times \frac{hours}{workers} \times \frac{workers}{population}$$

Labour  
productivity

Employment rate. Voluntary &  
Involuntary. Unemployment & inactivity  
Demographics



# WHAT IS LABOUR PRODUCTIVITY? 3 COMPONENTS OF GDP (OR GNP) PER CAPITA

Basic “welfare” measure

$$\frac{GDP}{Population} = \frac{GDP}{hours} \times \frac{hours}{workers} \times \frac{workers}{population}$$

Labour  
productivity

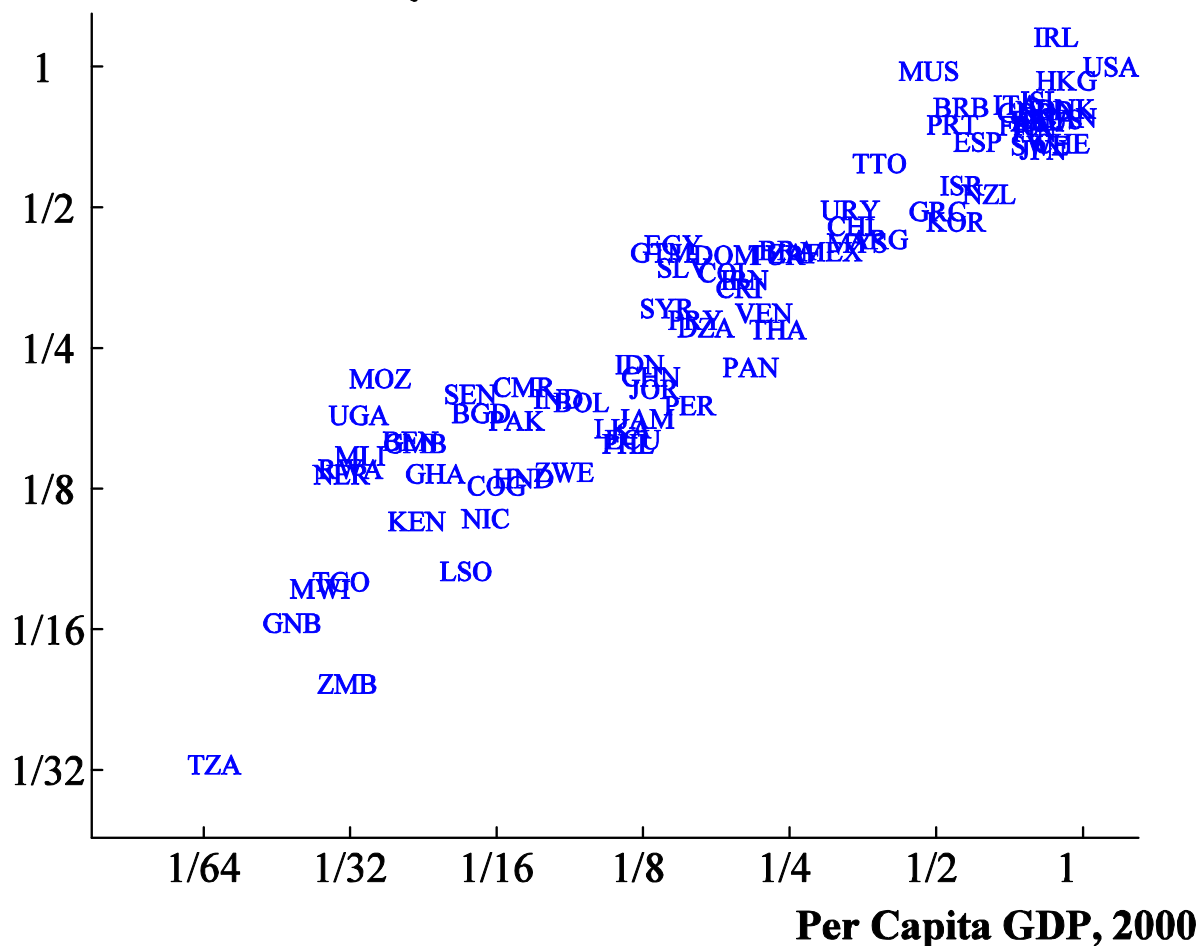
- Growth per capita matters for welfare. Total growth does not!

# MEASURING PRODUCTIVITY

- Labour Productivity (Output per hour) depends on:
  - Inputs per hour (physical and human capital, materials, energy, etc.)
  - **“Total Factor Productivity”** = TFP = “Solow residual”
  - TFP Accounts for most of long-term growth & much of differences in wealth of nations

# LARGE INCOME & TFP DIFFERENCES BETWEEN COUNTRIES

**Total Factor Productivity, 2000**

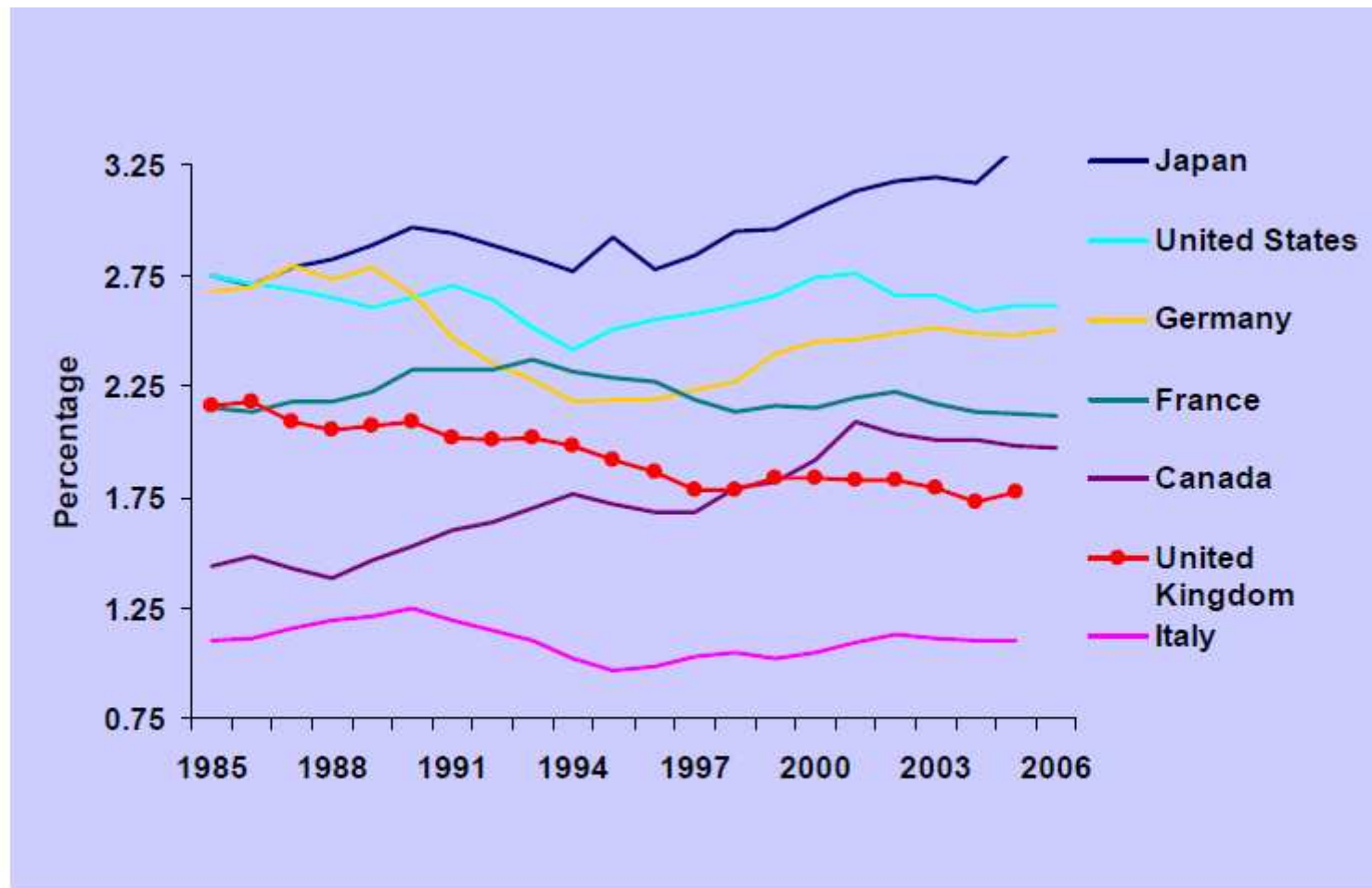


Source: Jones and Romer (2009). US=1

## WHAT IS LABOUR PRODUCTIVITY? UK 2007

$$\begin{array}{ccccccc} \sim\text{£}26,140 & & \sim\text{£}33.20 & & \sim 1,650 \text{ p.a.} & & 48\% \\ & \swarrow & \swarrow & & \swarrow & & \swarrow \\ \frac{GDP}{Population} & = & \frac{GDP}{hours} & \times & \frac{hours}{workers} & \times & \frac{workers}{population} \end{array}$$

# UK LAGS IN RESEARCH & DEVELOPMENT (R&D/GDP), GERD



Source: OECD MSTI 2007-2

## WHAT HELPED IMPROVE UK'S PRODUCTIVITY POSITION POST 1997?

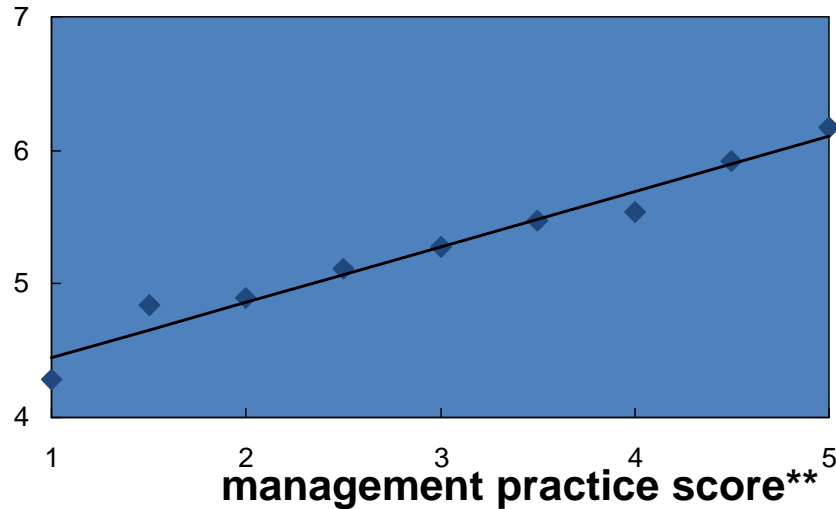
- Not driven just by financial sector; e.g. retail/wholesale had very strong productivity growth
- Increase in human capital through university expansion & school reforms (see over)
- R&D supported both directly & introduction of R&D tax credits (in 2000 for SMEs & 2002 for all firms)
- Product Market competition (e.g. Competition Policy Regime improved & ranked 2<sup>nd</sup> in world)

### Also:

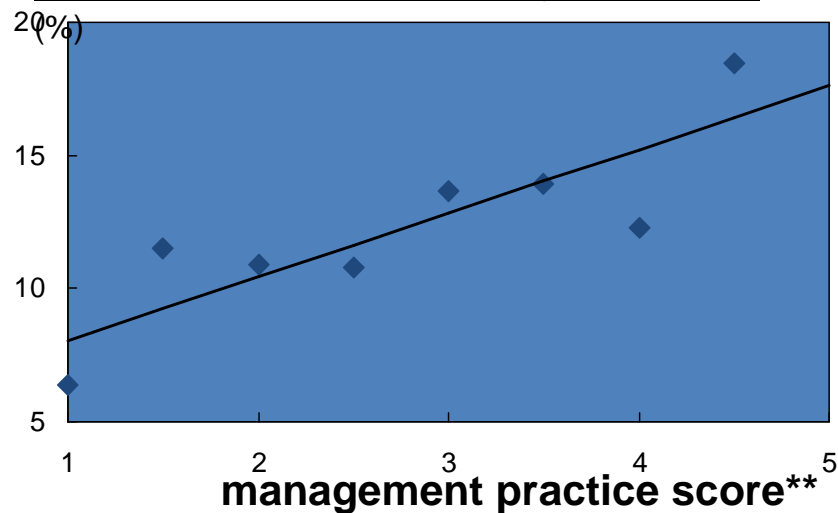
- Labour market flexibility
- Openness to FDI
- Labour market supported by welfare reform (e.g. New Deal)

# EXTERNAL VALIDATION: MANAGEMENT SCORE CORRELATES WELL WITH PERFORMANCE INDICATORS

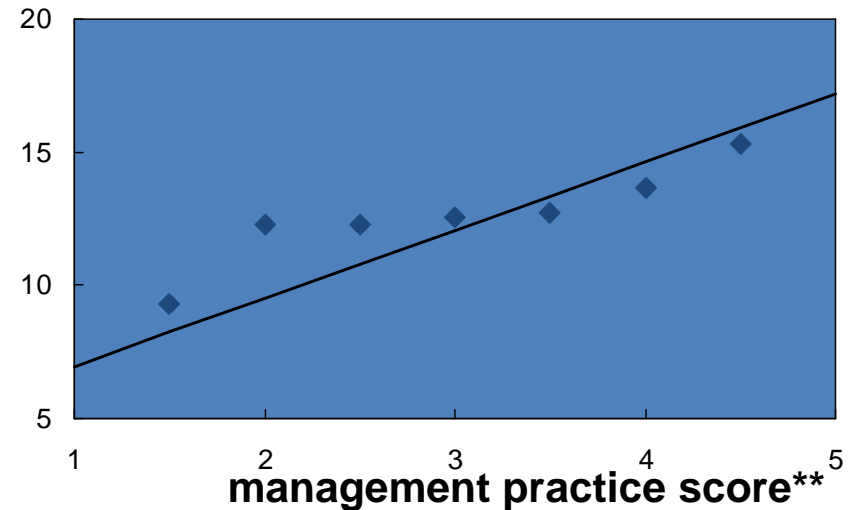
## Labour productivity\*



## Return On Capital Employed, ROCE



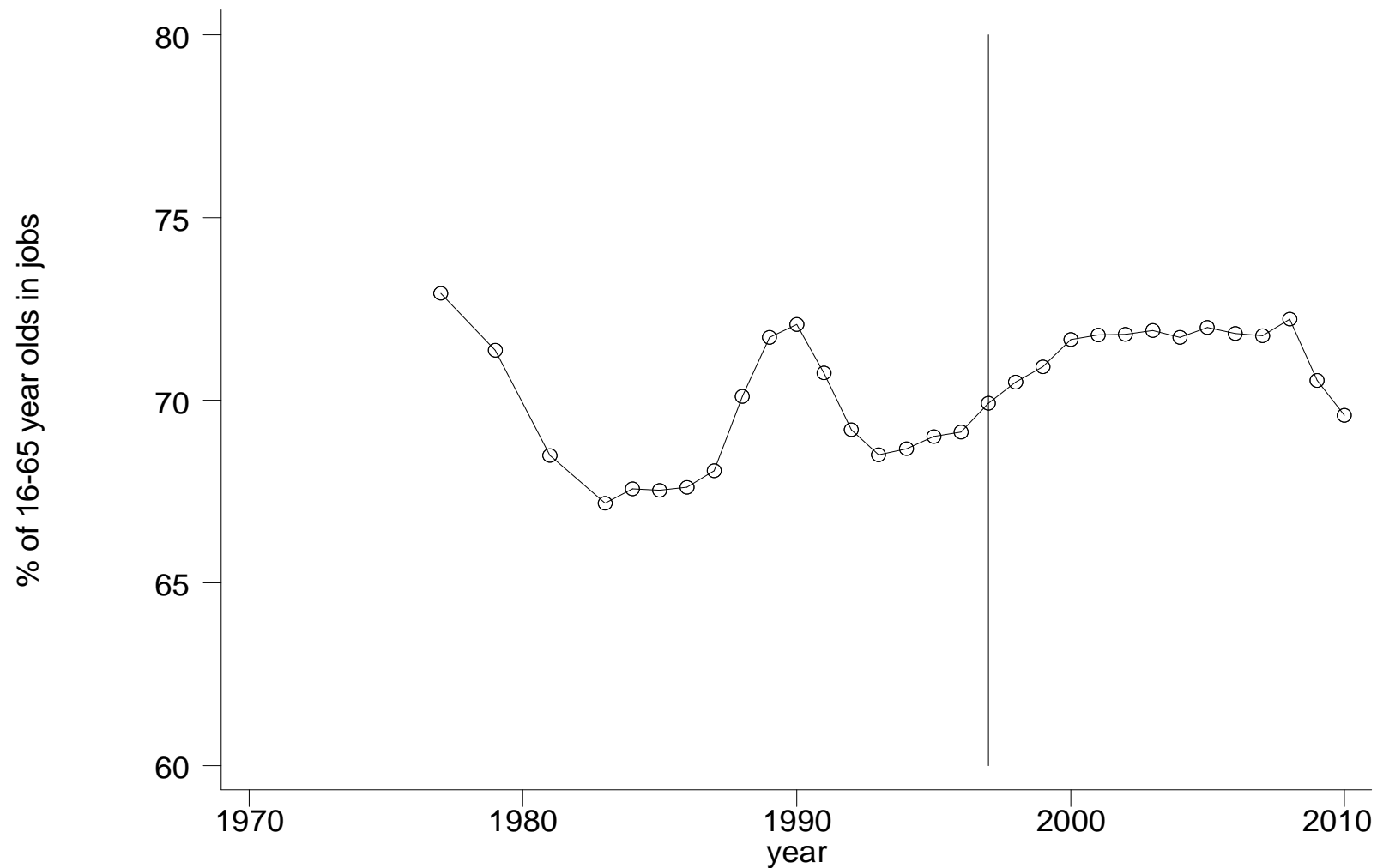
## Sales growth (%)



\* Log scale

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

# IMPROVEMENTS IN UK EMPLOYMENT RATE OF ADULTS, 1978-2010



**Source:** Labour Force Survey, Various years, ages 16-65



## UK SECOND ONLY TO US IN ELITE SCIENCE

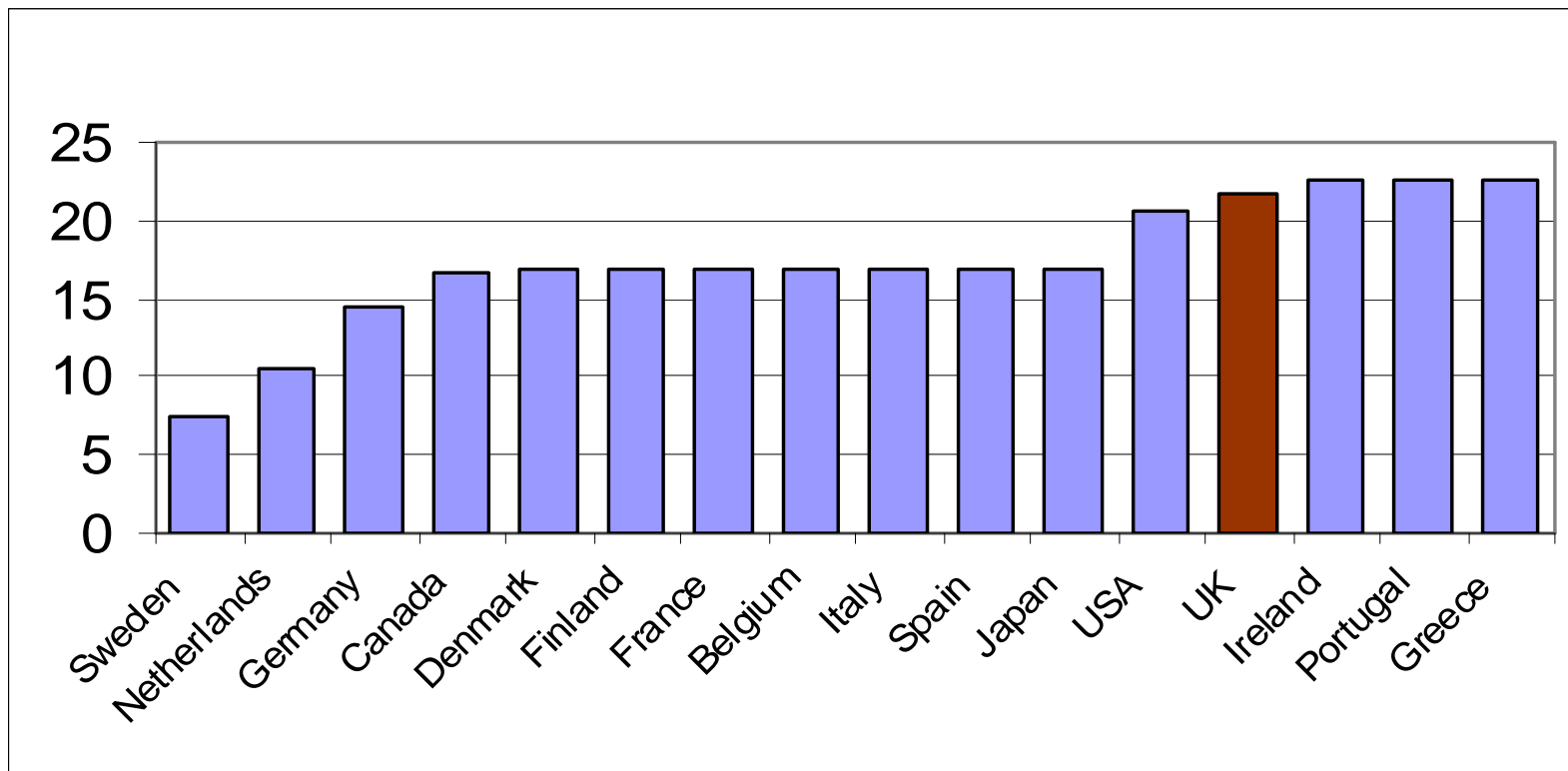
	Share of top scientific papers	Rank
US	58.6	1
UK	14.4	2
GERMANY	11.1	3
FRANCE	7.0	4
CANADA	6.2	5
JAPAN	6.1	6
ITALY	4.8	7
NETHERLANDS	4.3	8
CHINA	4.2	9

**Notes:** Shares of the most cited scientific papers 1999-2008 (top 1%)

**Source:** BIS/Thompson-Reuters (2009) “International comparative performance of the UK research base”, Table 1.12, p.60

[http://www.bis.gov.uk/assets/biscore/corporate/migratedd/publications/i/icpruk09v1\\_4.pdf](http://www.bis.gov.uk/assets/biscore/corporate/migratedd/publications/i/icpruk09v1_4.pdf)

# Functionally illiterate (% aged 16-65, 1995)



source HDR 1998

# **PEOPLE – e.g. *DEALING WITH POOR PERFORMERS***

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<b>Score</b>	<b>(1): Poor performers are rarely removed from their positions</b>	<b>(3) Suspected poor performers stay in a position for a few years before action is taken</b>	<b>(5): We move poor performers out of the hospital/department or to less critical roles as soon as a weakness is identified</b>
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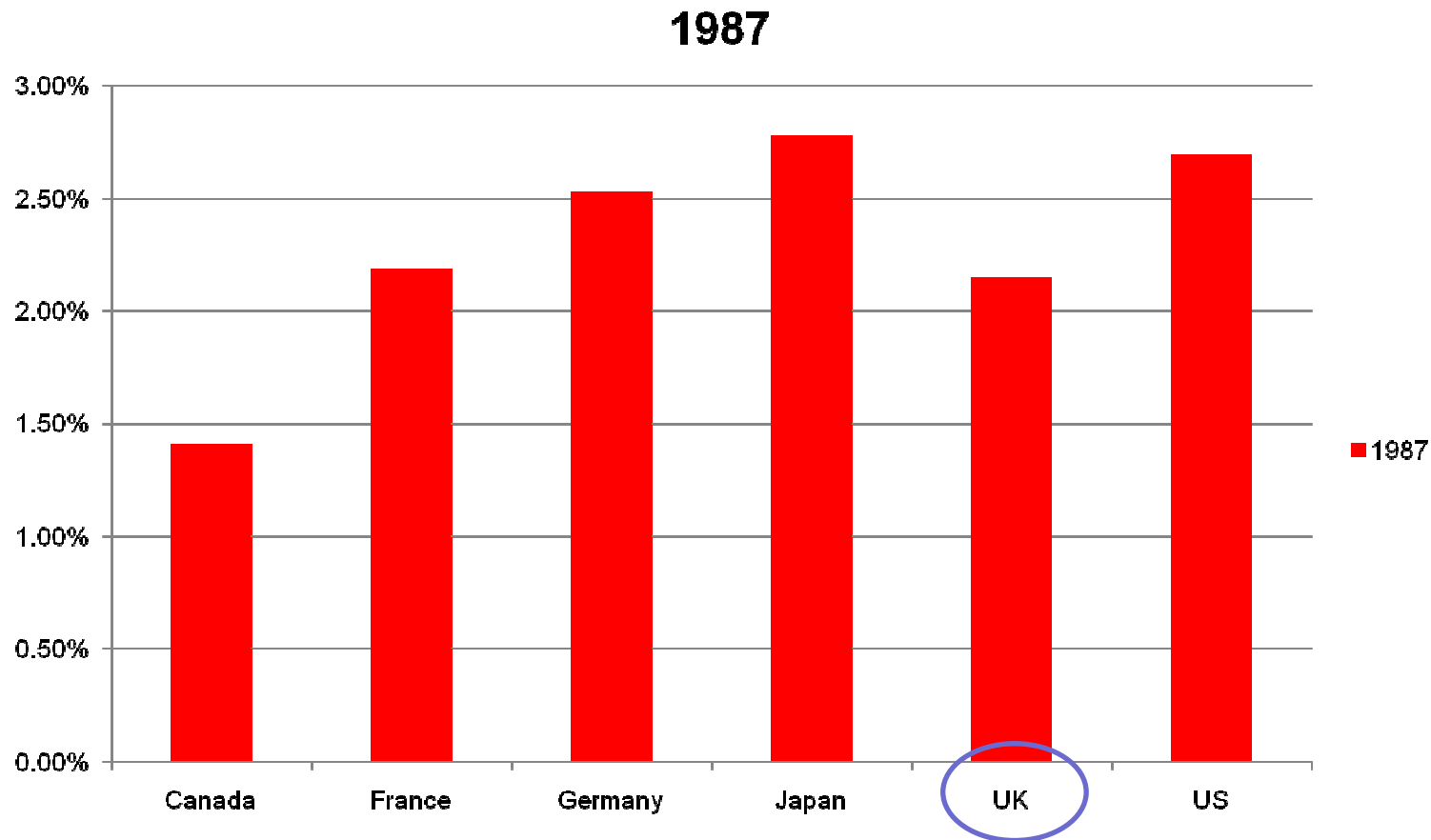
If you had an employee who could not do his job, what would you do? Could you give me a recent example? How long would underperformance be tolerated? Do some individuals always just manage to avoid being fixed/fired?

## **TARGETS - e.g. “*HOW TOUGH ARE TARGETS?*”**

<b>Score</b>	<b>(1) Goals are either too easy or impossible to achieve; managers low-ball estimates to ensure easy goals</b>	<b>(3) In most areas, top management pushes for aggressive goals based on solid economic rationale. There are a few "sacred cows" not held to the same rigorous standard</b>	<b>(5) Goals are genuinely demanding for all divisions. They are grounded in solid, solid economic rational</b>
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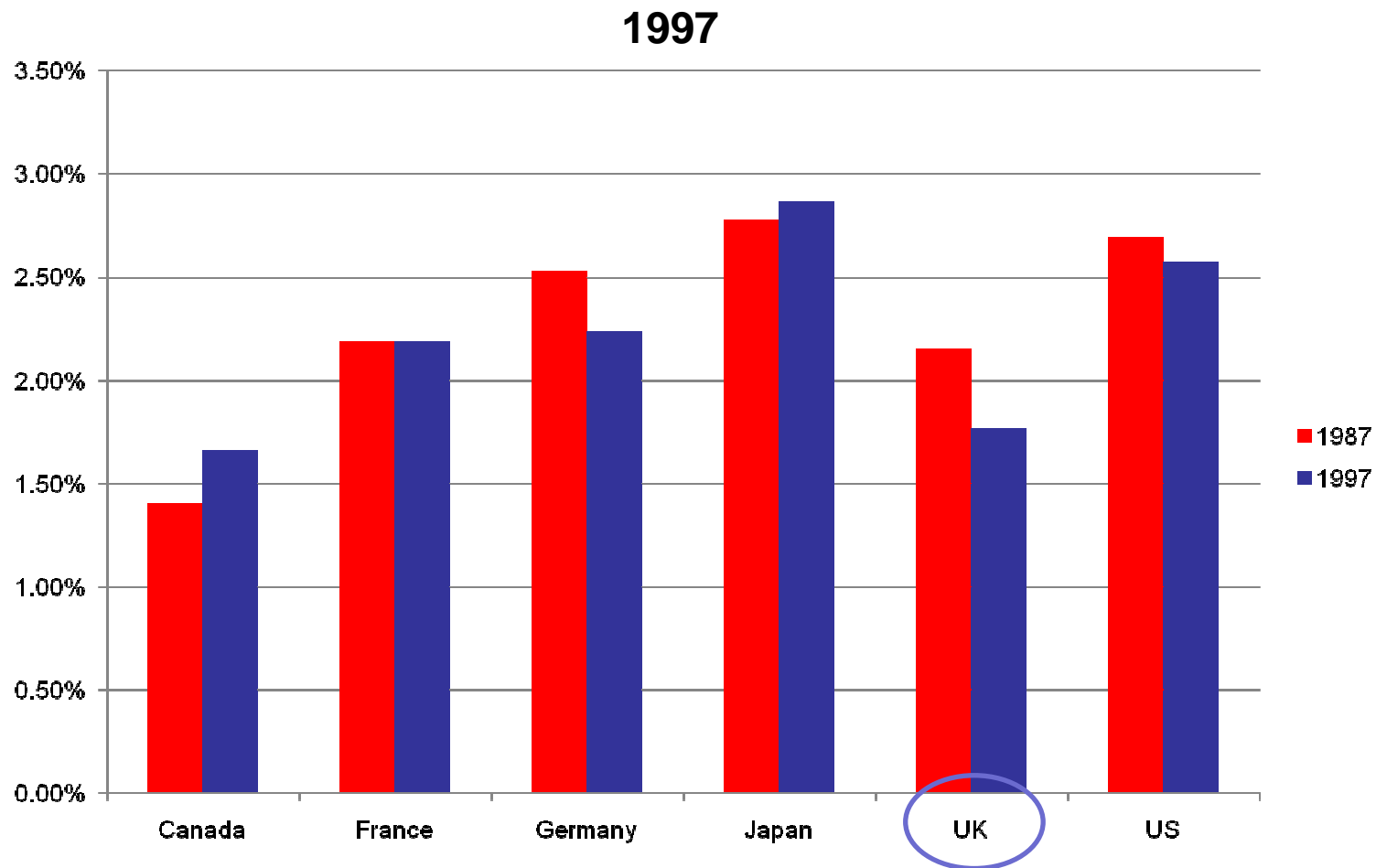
Note: All 18 dimensions and over 50 examples in Bloom & VanReenen (2006).

# UK R&D LOW COMPARED TO OTHER COUNTRIES. TOTAL RESEARCH AND DEVELOPMENT AS A % OF GDP



Source: OECD (GERD/GDP)

# UK R&D DECLINE 1987-1997? TOTAL RESEARCH AND DEVELOPMENT AS A % OF GDP



Source: OECD (GERD/GDP)

## RECENT TRENDS IN PRODUCTIVITY

- After 1970s Oil Shocks a Productivity slowdown (e.g. US productivity growth slowed to about 1.2% p.a)
- From mid-1990s, US productivity “miracle”
- Crisis after end 2007

### GDP/hour p.a. growth

	US	EU-15	UK	France	Germany
<b>1995-2005</b>	2.3%	1.5%	2.2%	1.8%	1.6%
<b>2005-2009</b>	1.2%	0.3%	0.4%	0.2%	0.3%

Source: Conference Board, September 2010<sup>87</sup>

## WHAT “REBALANCING” IS NECESSARY?

- **Within Private sector**
  - Away from finance, construction, etc.
  - Towards manufacturing, high tech service exports
- **Between Public and private sector**
  - Need to reduce public spending
  - But to what level? Problem in 2000-07 was that taxes should have been raised more to cover spending choices
  - Expansion of health & education a choice post 1999
  - Reducing also a political choice, not an economic necessity, e.g. US vs. Northern EU



# FAMILY FIRMS & MANAGEMENT – AN OLD TOPIC

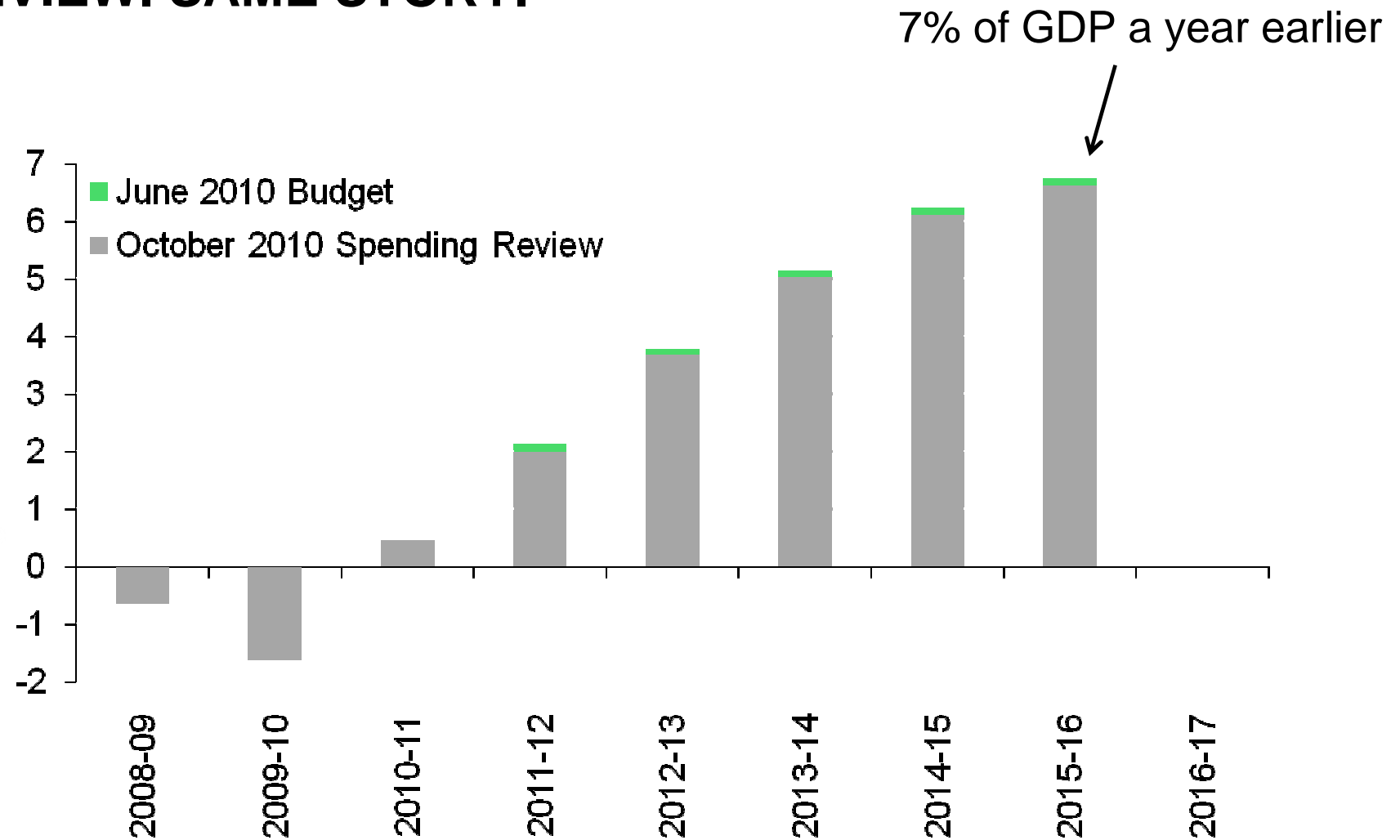
Alfred Chandler<sup>1</sup> and David Landes<sup>2</sup> claimed that the UK industrial decline relative to US & Germany was linked to family firms

*“The Britain of the late 19<sup>th</sup> Century basked complacently in the sunset of economic hegemony. Now it was the turn of the 3<sup>rd</sup> generation...and the weakness of British enterprise reflected their combination of amateurism and complacency”*

<sup>1</sup> Alfred Chandler, “Scale and Scope: The Dynamics of Industrial Capitalism”, (1994)

<sup>2</sup> David Landes, “The Unbound Prometheus: Technological Change and Industrial Development in Western Europe from 1750 to the Present”, (1969)

## EXTREME AUSTERITY – OCTOBER SPENDING REVIEW. REVIEW. SAME STORY.

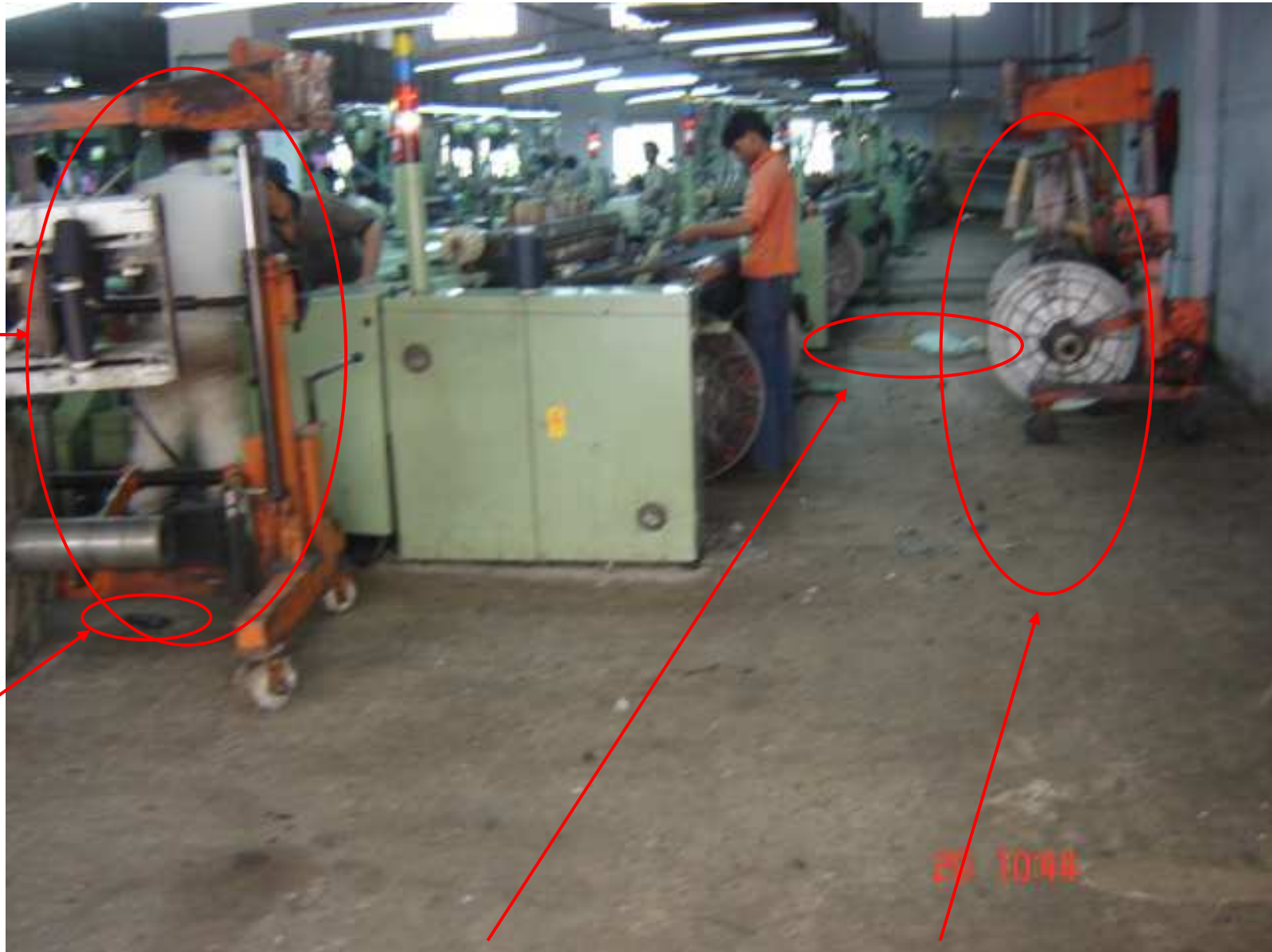


Source: IFS, HMT

# THE FACTORIES ARE ALSO DISORGANIZED

Instrument  
not removed  
after use,  
blocking  
hallway.

Oil  
leaking  
from the  
machine



Cotton lying on the floor

Instrument blocking the hallway

## A splendid decade

### GDP per person

Average annual growth rate, 2001-2010\*, %

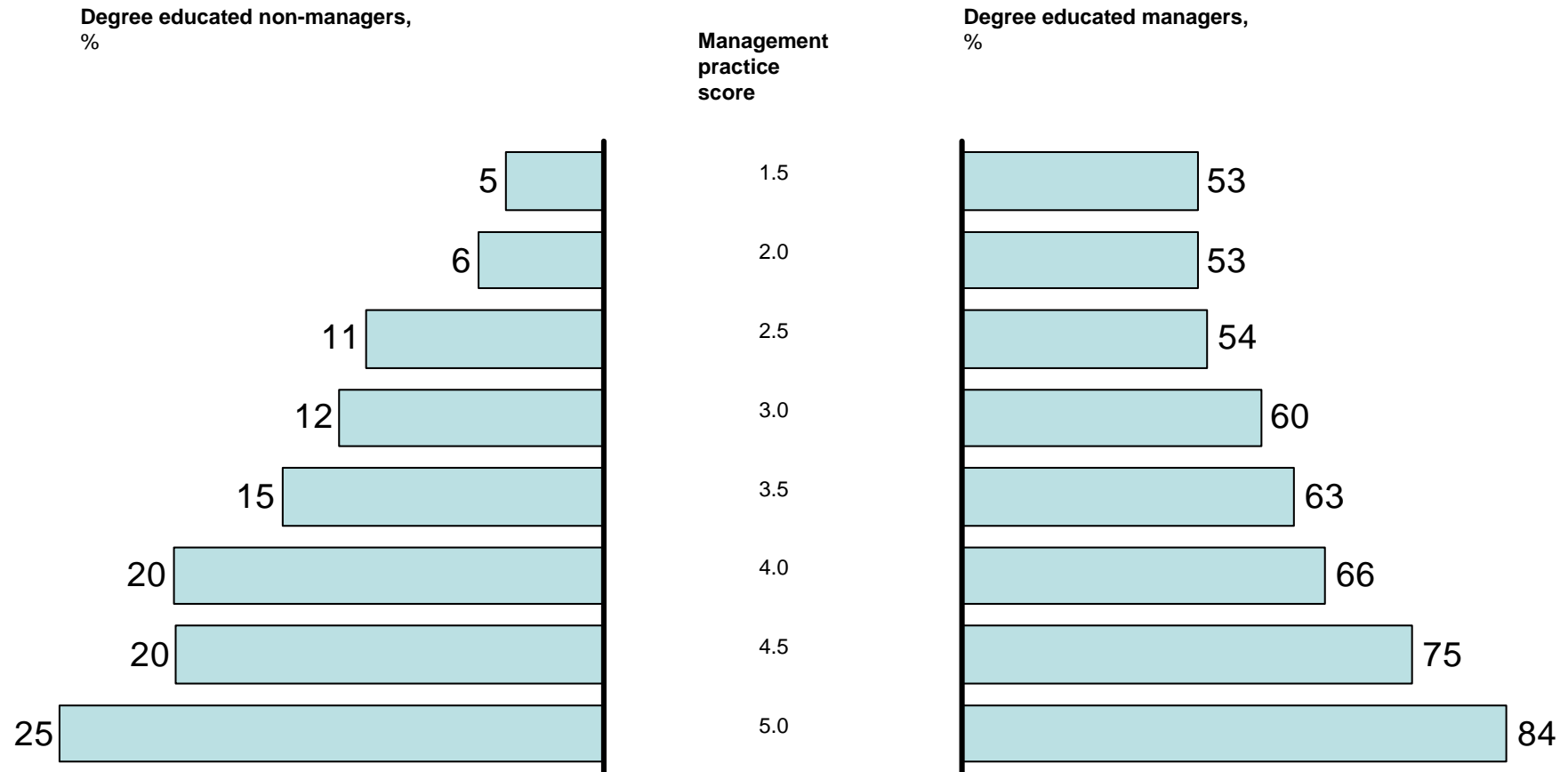


### Unemployment rate

Harmonised definition, latest month, %

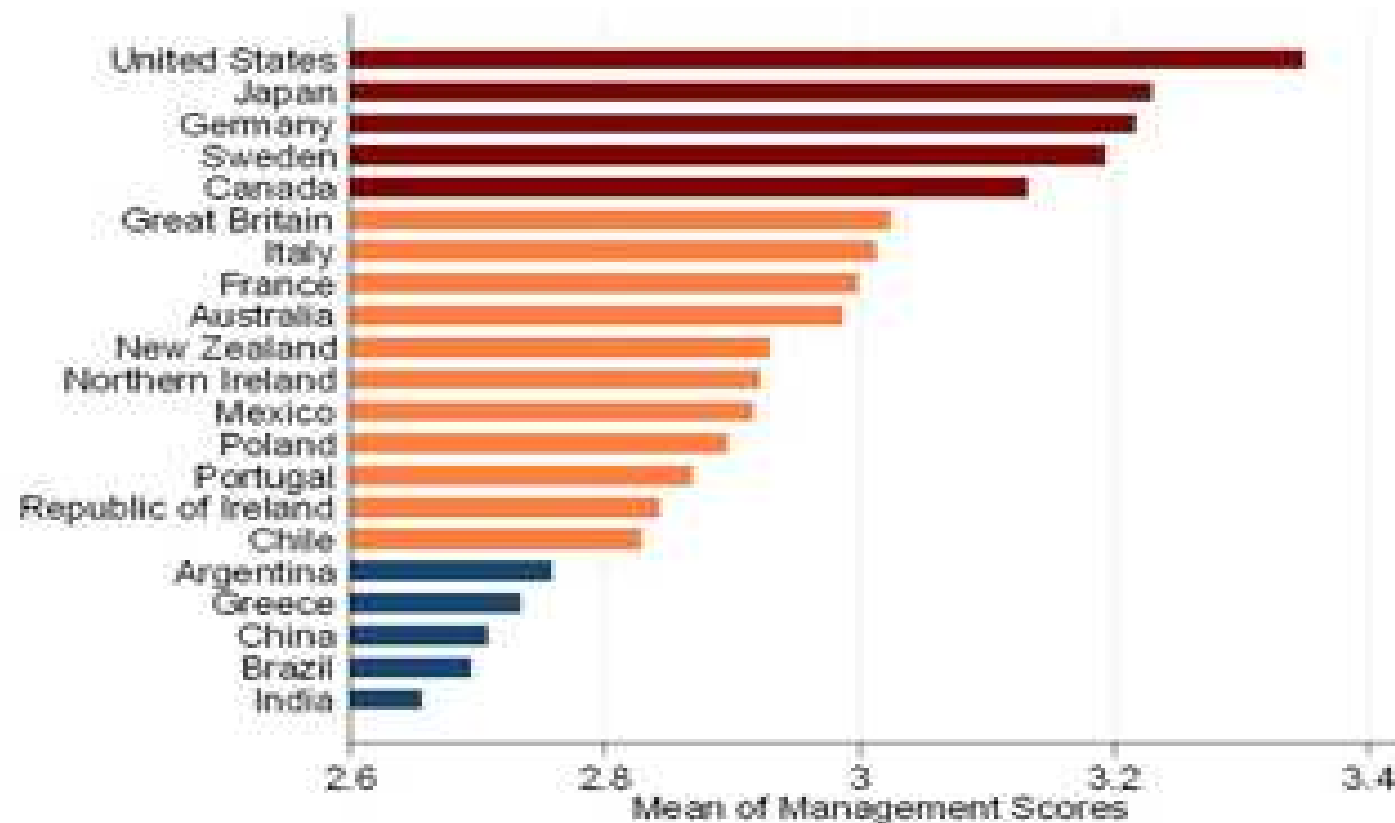


# BETTER MANAGEMENT IS LINKED WITH HIGHER SKILL LEVELS OF BOTH MANAGERS AND NON-MANAGERS



## Management scores across countries

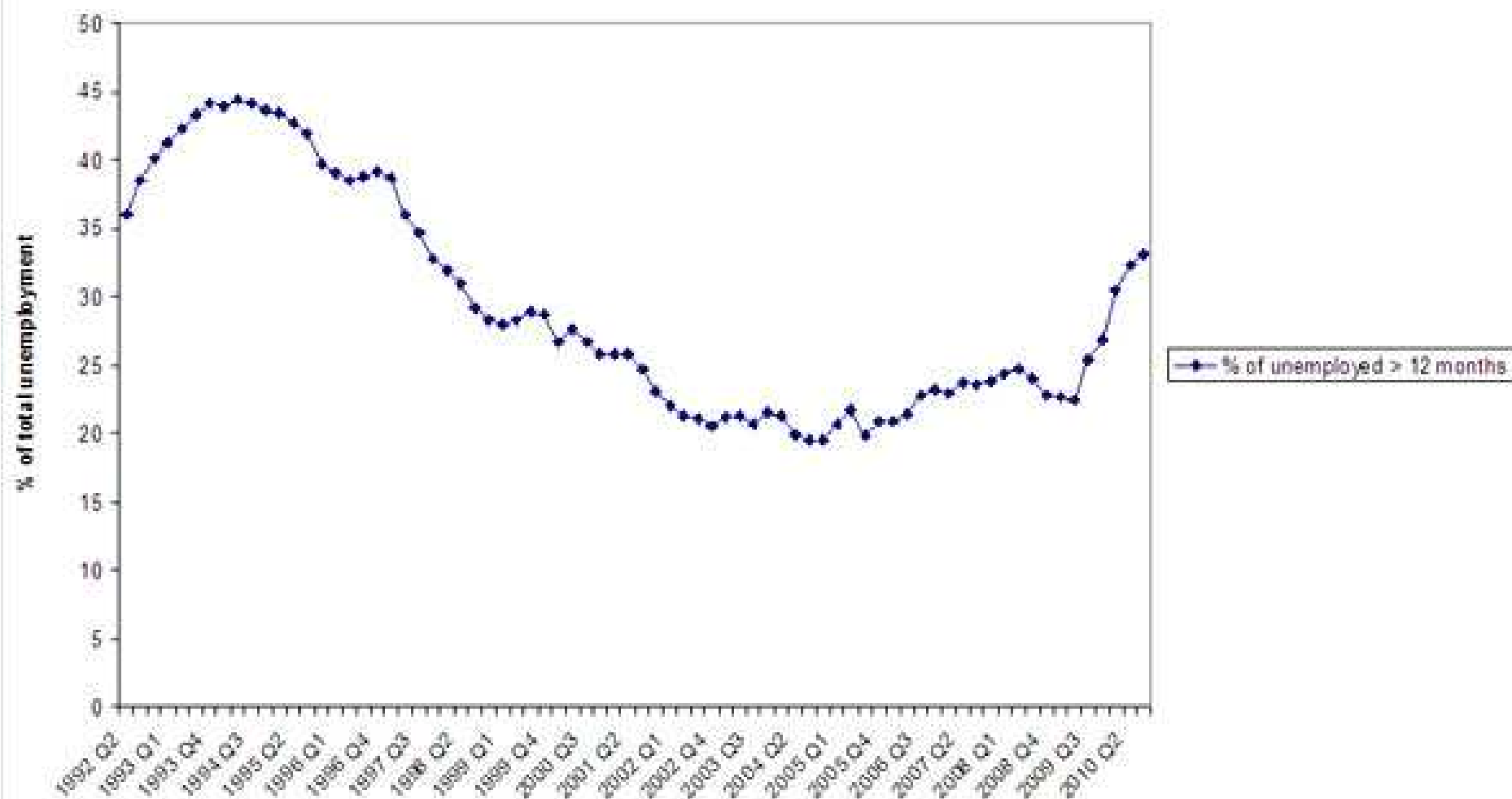
WMS team analyses the average country-level management practice scores.



# Support for slowing down consolidation

- "There is no doubt that a fiscal consolidation plan should be in place, and we have argued for one both before and after the election. Increasing the national debt transfers resources from our children to us, and leaves us unprepared for the next crisis. However, the debate over the timing and scale of the consolidation is not over. Borrowing is cheap, debt default risks in the UK are low, and there is a significant output gap in the economy. In these circumstances we would argue for a delay in consolidation."
- (Ray Barrell, NIESR)

Figure 2: Rising proportion of unemployment is long term





# EXAMPLE OF BAD INNOVATION POLICY

- **Patent Box to be introduced in 2013**
  - reduces corporation tax rate on net income from patents to 10%
  - Costs ~£1bn a year given to a small no. of companies
  - Poorly targeted at promoting research
  - Distorts incentives to invest in patents relative to other IP
  - Deadweight subsidy on activities that already occur
  - Encourages tax competition (Benelux)
  - Complexity

# MY FAVOURITE QUOTES:

India is such an interesting place...

*Plant Manager:* “Modern manufacturing? Yes, I have heard about it, but it doesn’t make any sense at all, does it?”

*Interviewer:* “How do you identify your star performers?”

*Manager:* “This is India, everyone thinks he is a star performer!”

*Interviewer:* “How do you keep your top performers?”

*Manager:* “I am a star performer and I want to leave!”

# MANAGEMENT SURVEY SAMPLE

- Interviewed over 8,000 firms across Americas, Asia & Europe
- Obtained 45% response rate from sampling frame (with responses uncorrelated with performance measures)

Medium sized manufacturing firms:

- Medium sized (100 - 5,000 employees, median  $\approx$  250) because firm practices more homogeneous
- Manufacturing as easier to measure productivity (also conducted in Schools, Hospitals, Retail and Law Firms)

## **MONITORING – e.g. *HOW IS PERFORMANCE TRACKED?*”**

<b>Score</b>	<b>(1): Measures tracked do not indicate directly if overall business objectives are being met. Certain processes aren't tracked at all</b>	<b>(3): Most key performance indicators are tracked formally. Tracking is overseen by senior management</b>	<b>(5): Performance is continuously tracked and communicated, both formally and informally, to all staff using a range of visual management tools</b>
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**Note:** All 18 dimensions and over 50 examples in Bloom & Van Reenen (2006)

*LSE Works: Centre for Economic Performance*

# Where is Future Growth Going to Come From?

Professor John Van Reenen  
*Professor of economics and director of  
the Centre for Economic Performance,  
LSE*

Professor Steve Machin  
*Chair, LSE*

Professor Jonathan Haskel  
*Professor of Economics, Imperial College  
Business School*

**LSE** events

