

# UK Growth Performance

**John Van Reenen:** Centre for Economic Performance & LSE

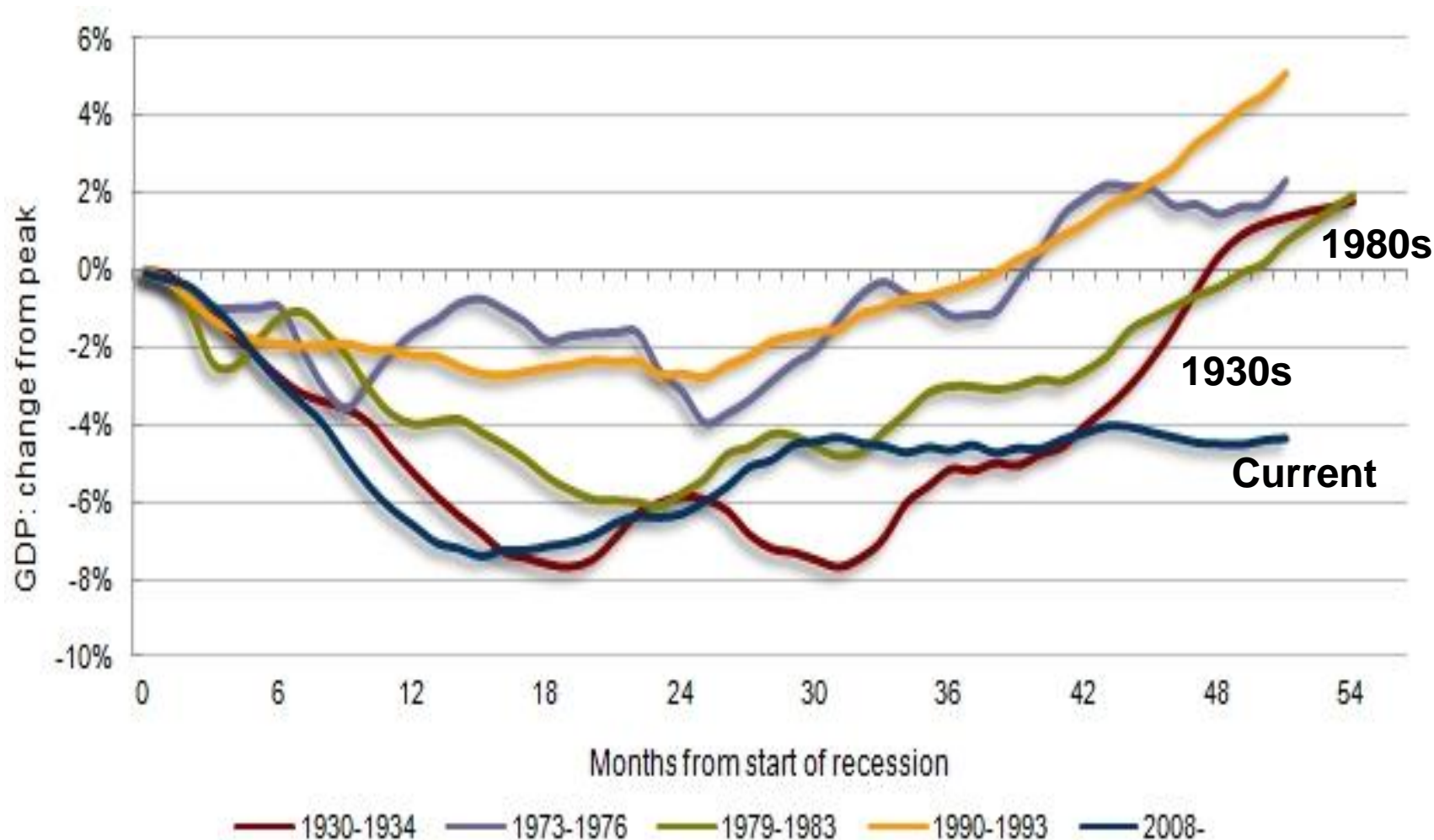
**BIS Evidence Based Policy Workshop on Growth**

**June 13<sup>th</sup> 2012**



 CENTRE *for* ECONOMIC  
P E R F O R M A N C E 

# RECOVERY FROM THIS RECESSION IS VERY SLOW – UK GDP STILL OVER 4% BELOW 2008 LEVELS IN 2012



Source: NIESR

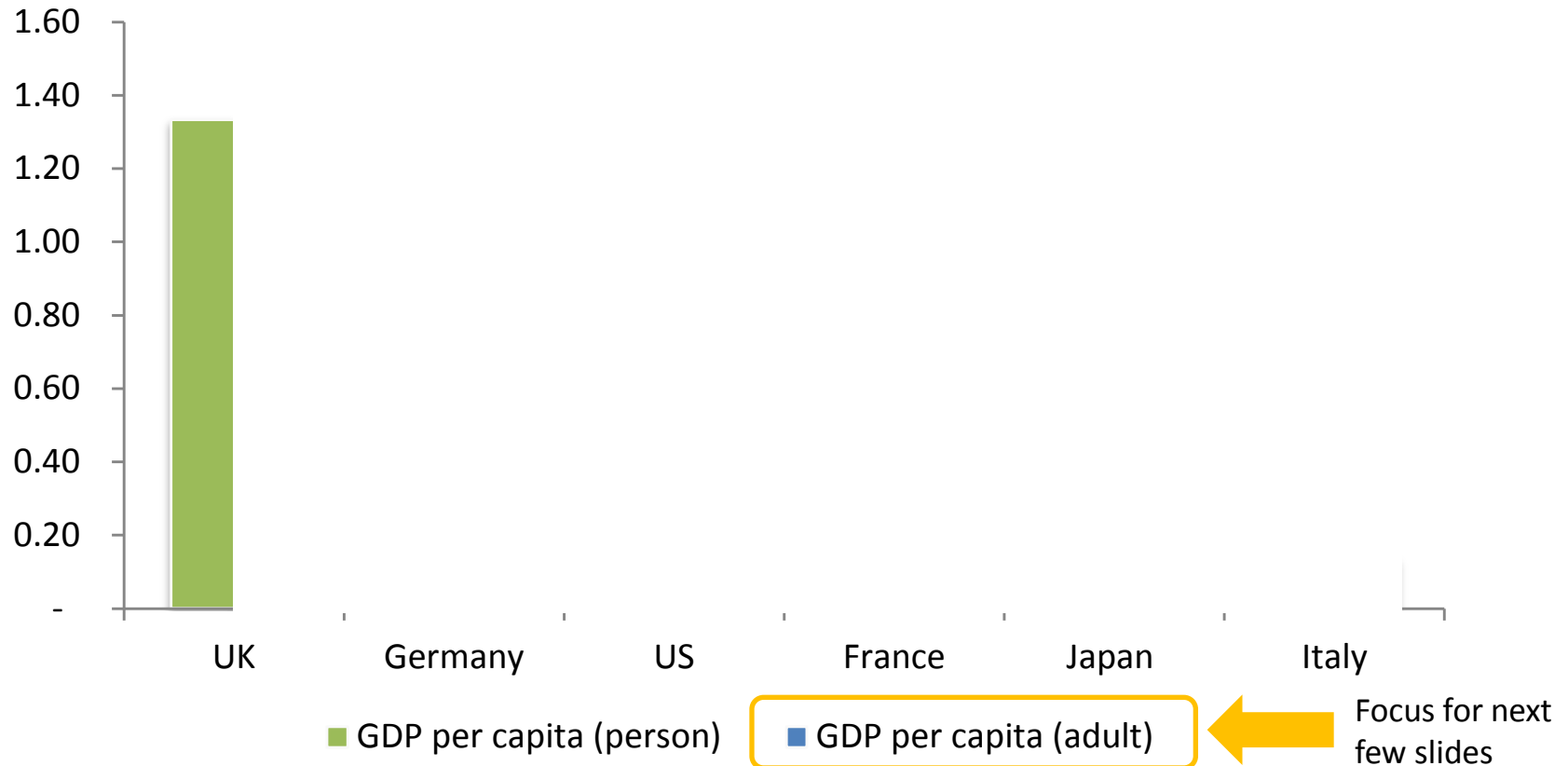
# Summary

- **Given current gloom, UK did surprisingly well post 1997 even after including current recession**
  - Fast GDP per adult growth in G6
  - Not “bubble” in finance (or public sector, property or oil)
- More than continuation of improvement after Mrs. Thatcher - Policies likely played a part
- **“Output gap” may be larger than supply side pessimists think**
  - Implies room for Plan B, slowing fiscal consolidation
- **Long-run growth strategy (LSE Growth Commission)**
  - Get economic environment right
  - Relentless focus on removing barriers in sectors with strong global growth where UK has comparative advantage

- 1 UK Relative Economic Performance since 1997: Growth, productivity and jobs
- 2 Role of Policy?
- 3 The Great Recession and Beyond
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# UK growth in GDP per capita faster than every other G6 country

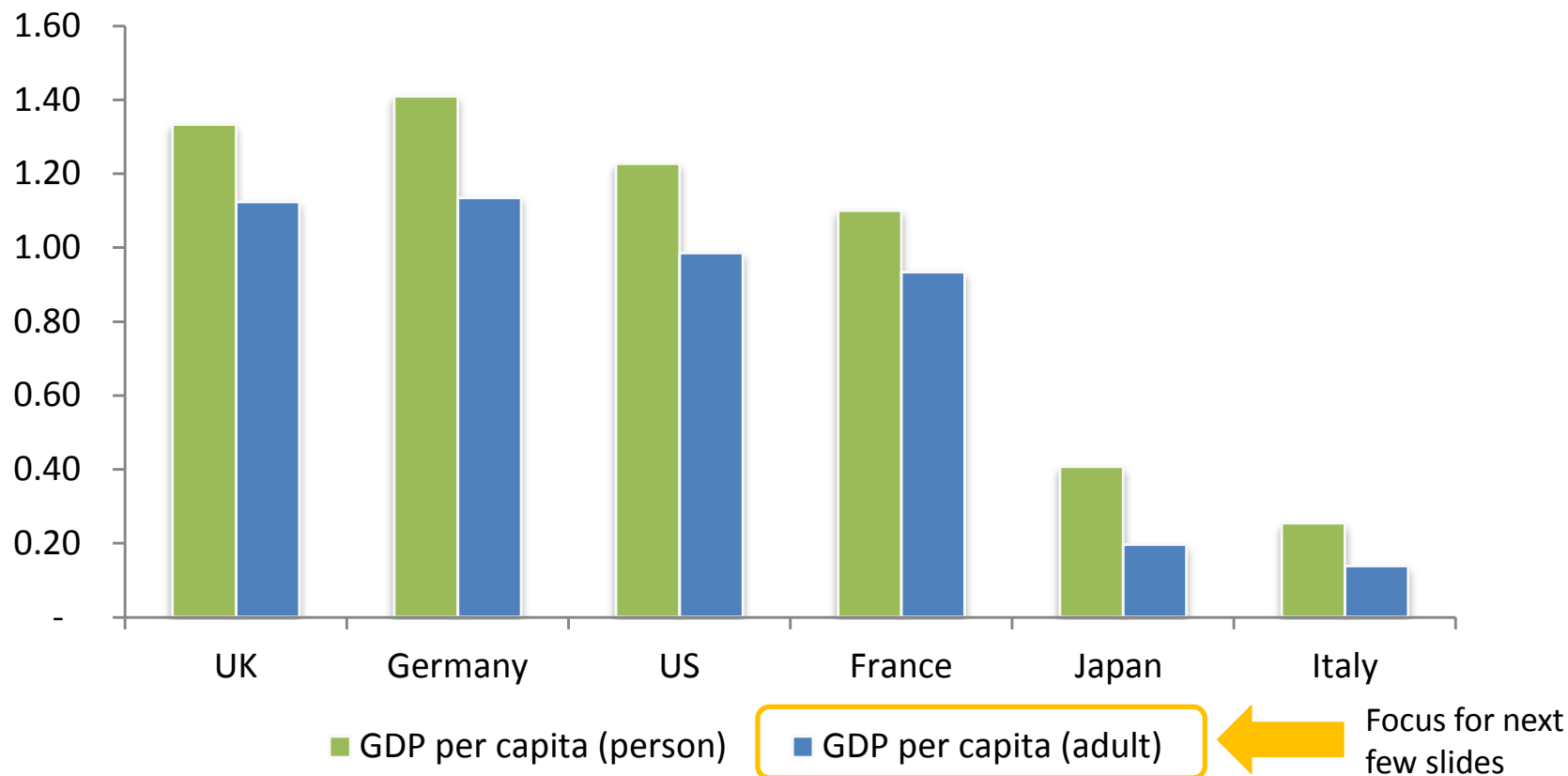
Annual average growth GDP per capita & GDP per adult, 1997-2011



Notes: OECD data GDP is US\$, constant prices, constant PPPs, (OECD based year: 2005). Adults are civilian population over 16. US Bureau of Labour Force Statistics.

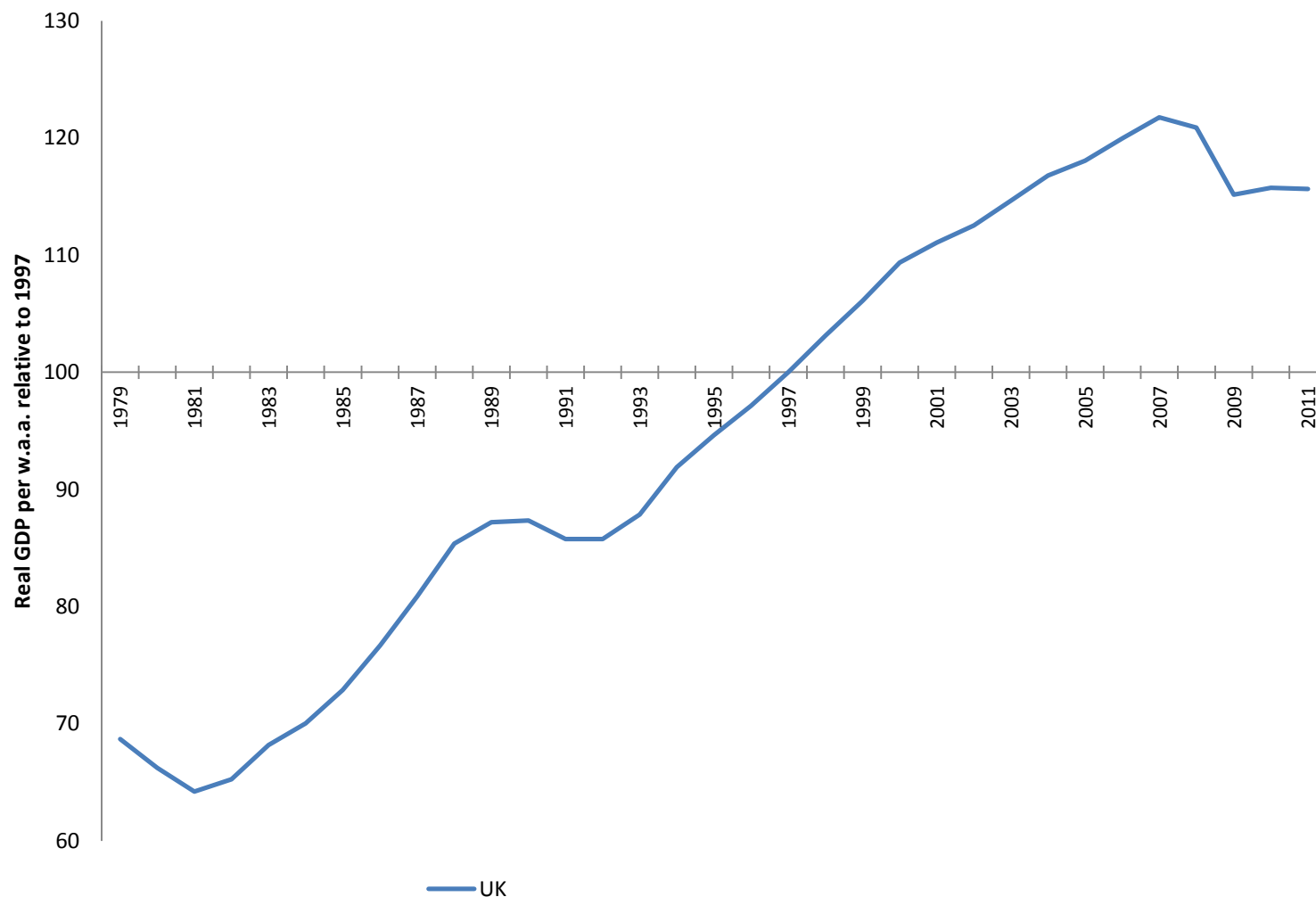
# Growth in GDP per capita since 1997 in G6: UK pretty good

## Annual average growth GDP per capita & GDP per adult, 1997-2011



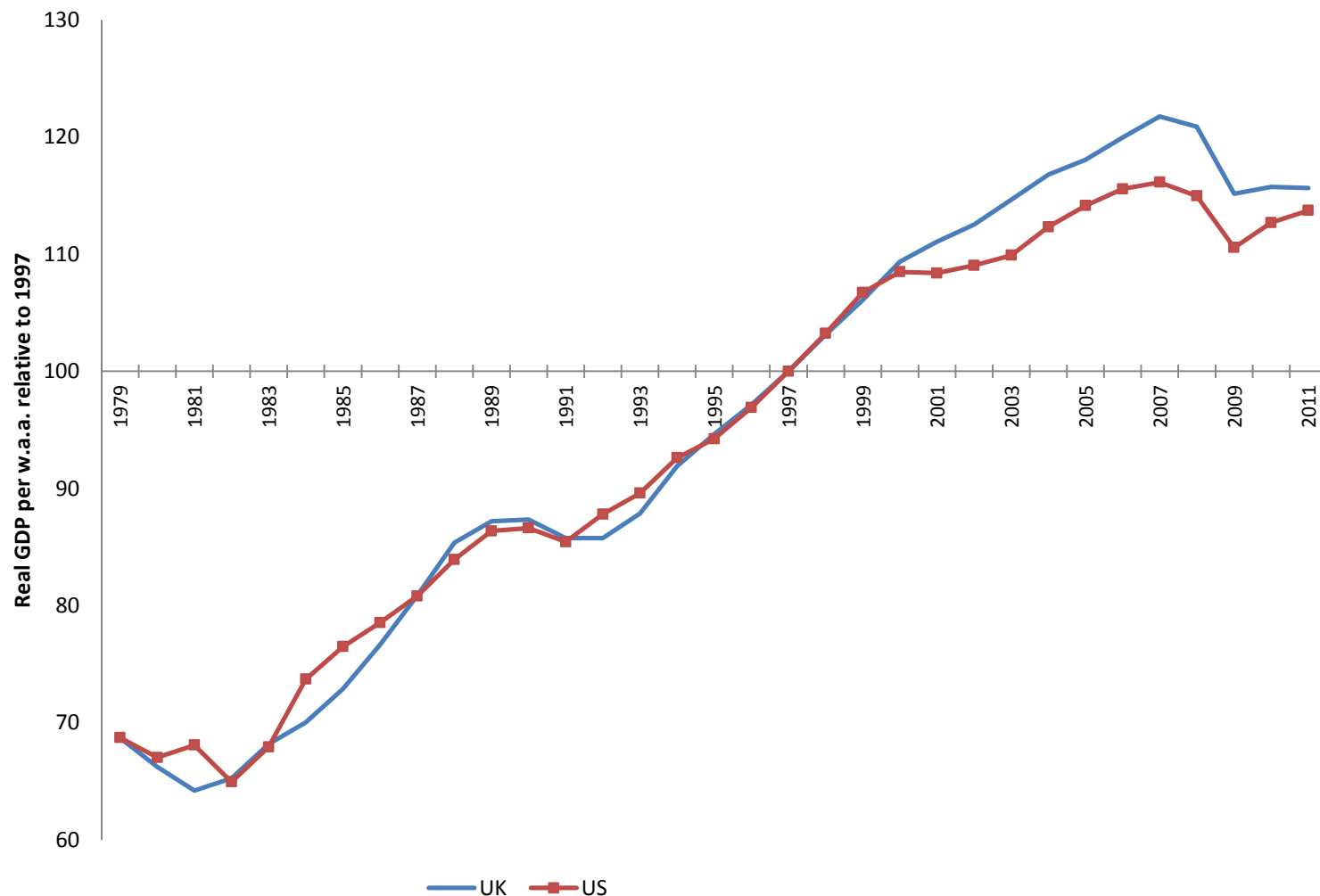
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# GDP per adult growth (1997=100) in UK



Notes: CB data GDP is US\$, constant prices, constant PPPs, (CB based year: 2011). Adults are civilian population over 16. US Bureau of Labour Force Statistics. Data for Unified Germany from 1991.

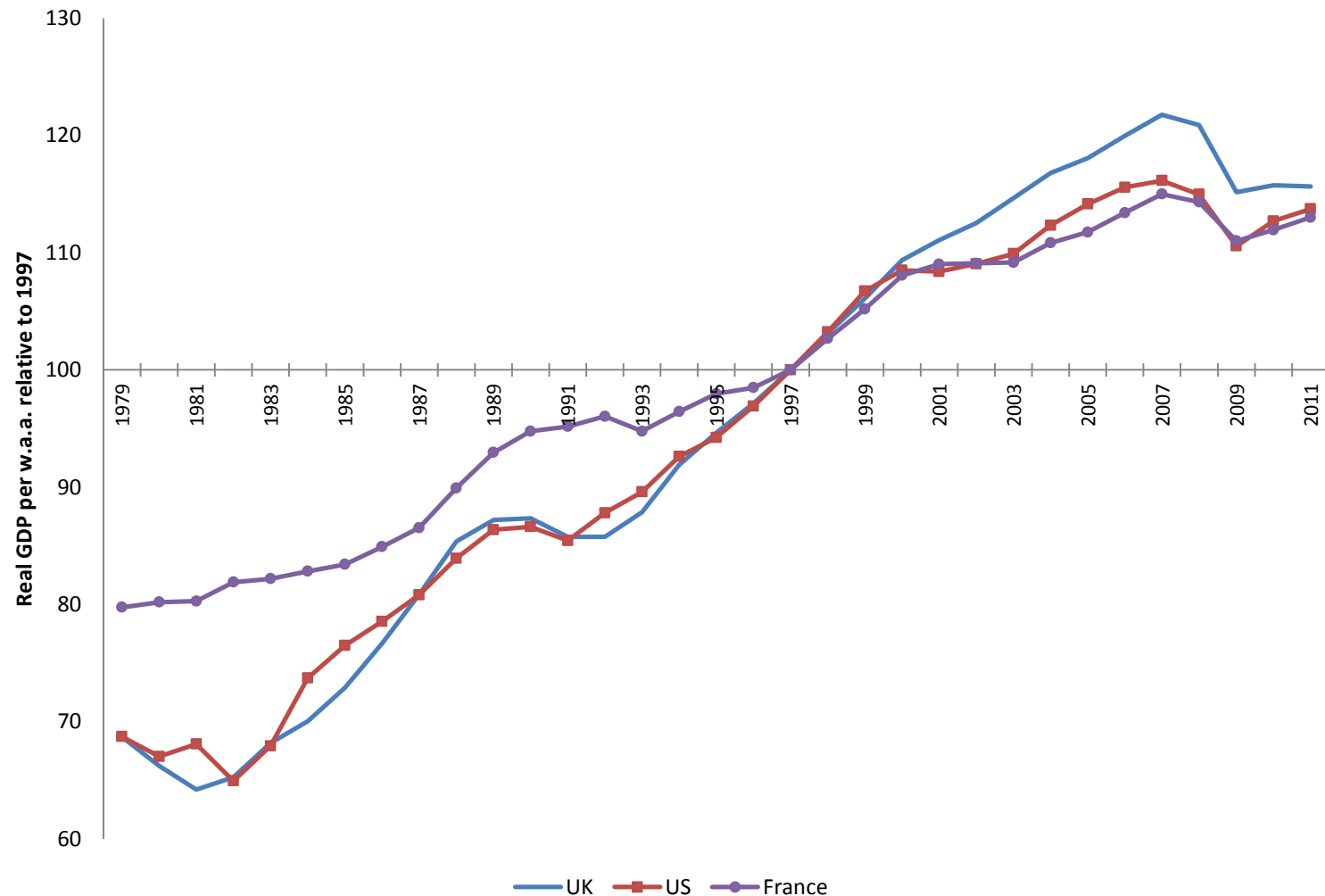
# GDP per adult growth (1997=100) in UK and US



Notes: CB data GDP is US\$, constant prices, constant PPPs, (CB based year: 2011). Adults are civilian population over 16. US Bureau of Labour Force Statistics. Data for Unified Germany from 1991.

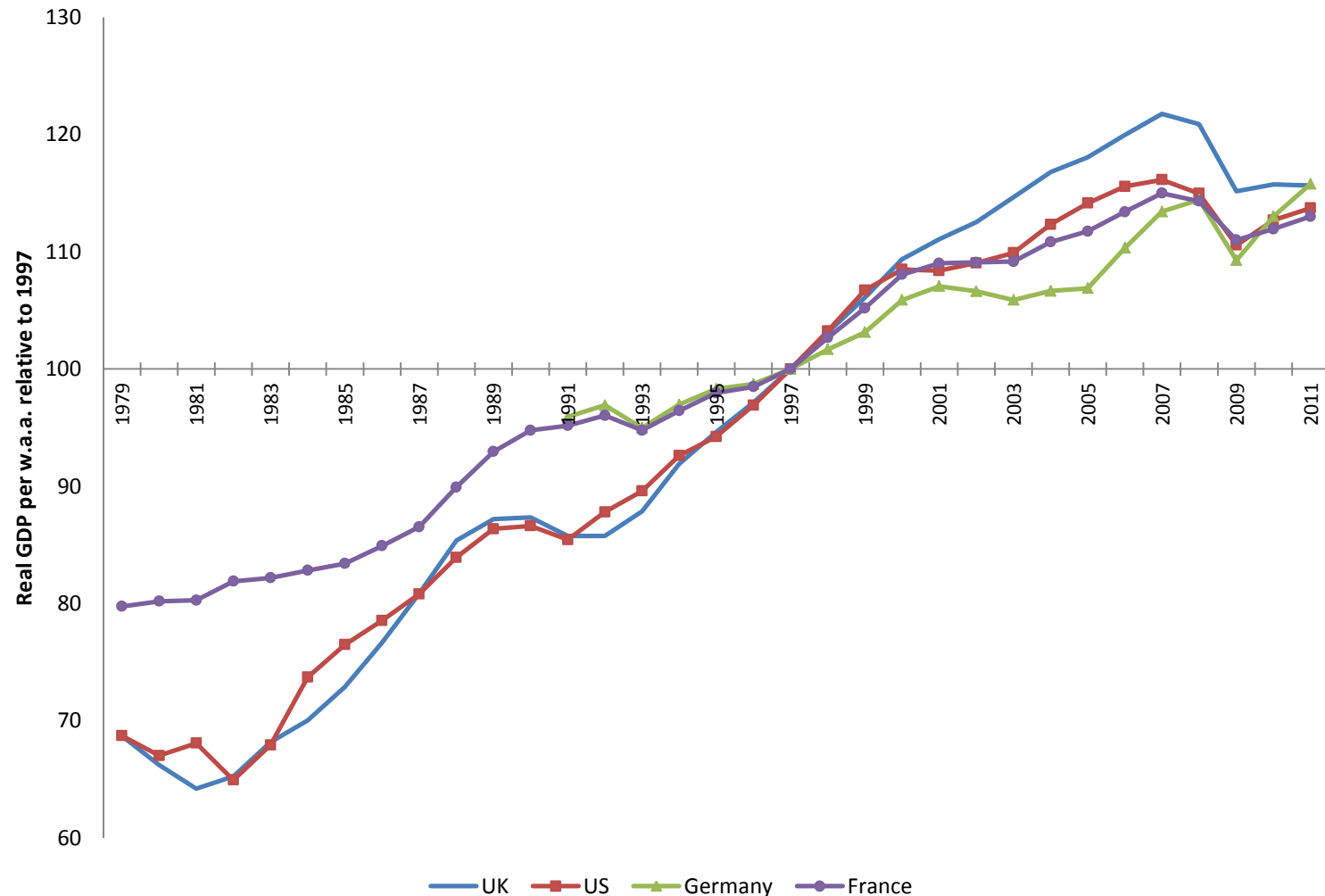


# GDP per adult growth (1997=100) in UK, US, FRA



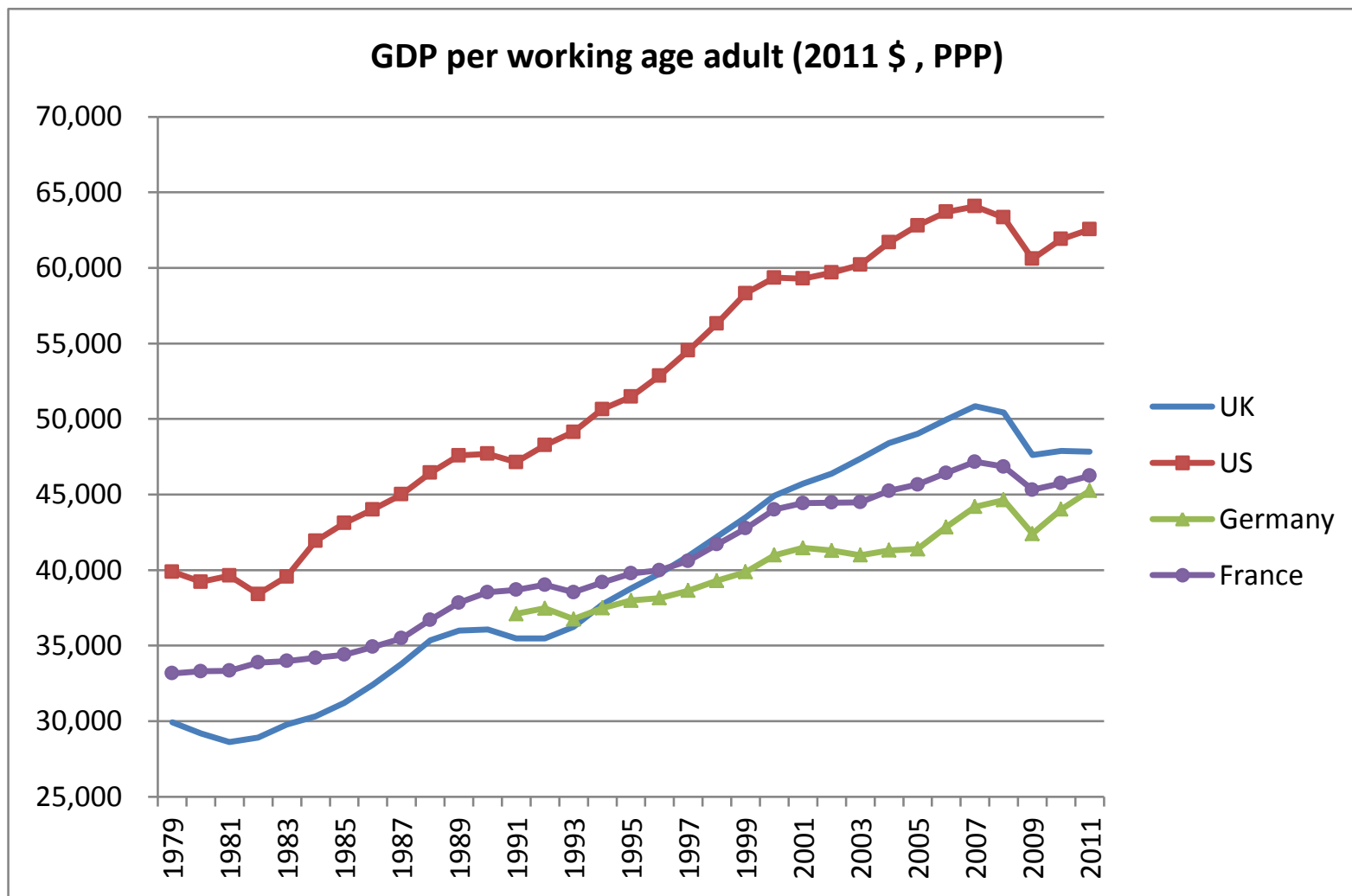
Notes: CB data GDP is US\$, constant prices, constant PPPs, (CB based year: 2011). Adults are civilian population over 16. US Bureau of Labour Force Statistics. Data for Unified Germany from 1991.

# GDP per adult growth (1997=100) UK,US,FR, GER



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# GDP per adult (absolute levels)



Notes: CB data GDP is US\$, constant prices, constant PPPs, (CB based year: 2011).

# Growth decomposition

Basic “welfare” measure

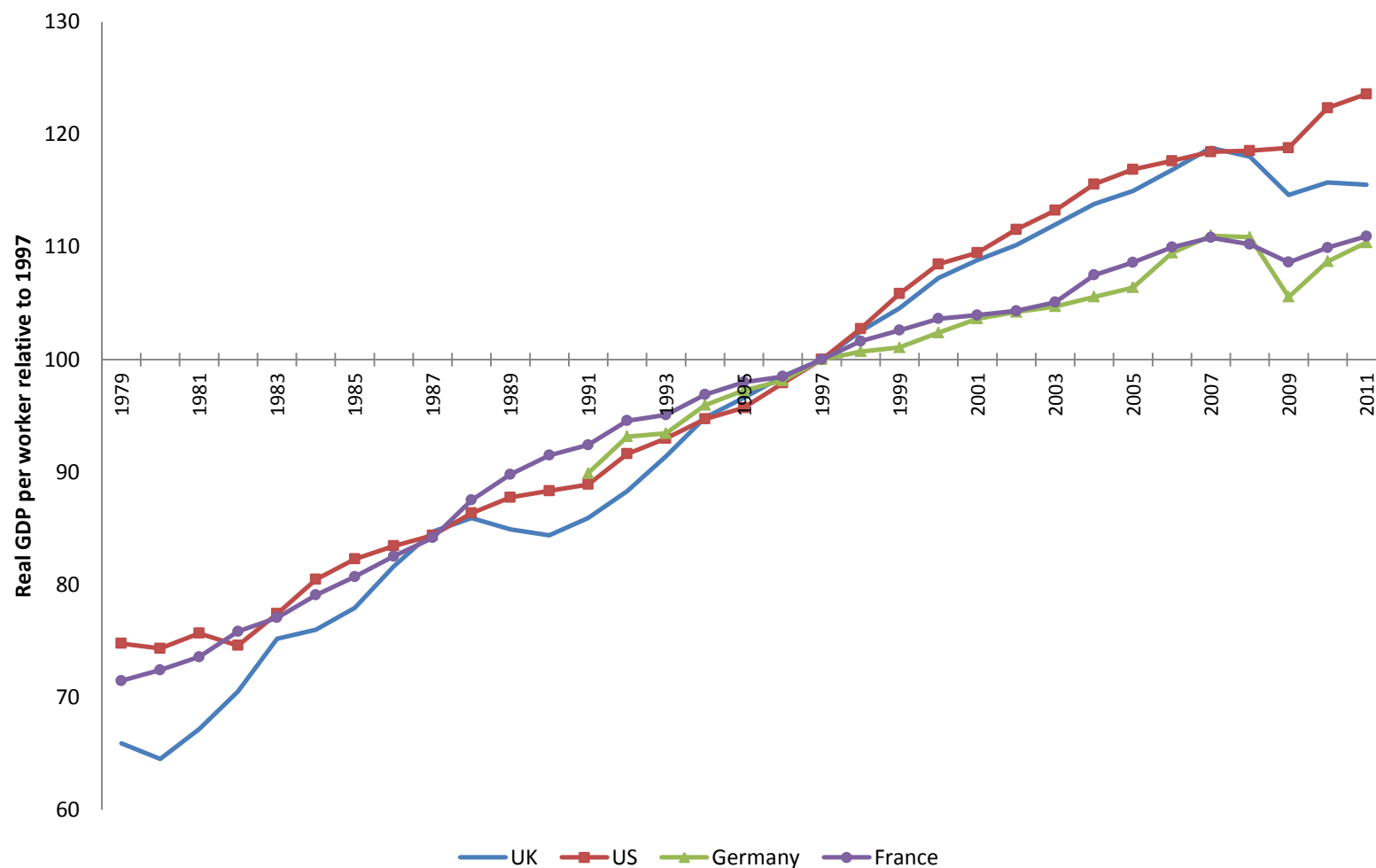
The diagram illustrates the decomposition of GDP per capita into its constituent parts. A central green box contains the equation: 
$$\frac{GDP}{Capita} = \frac{GDP}{employee} \times \frac{Employees}{population}$$
 Three green arrows point towards this box: one from the text 'Basic “welfare” measure' above and to the left, one from the text 'Labour productivity' below and to the left, and one from the text 'Employment Rate' below and to the right.

$$\frac{GDP}{Capita} = \frac{GDP}{employee} \times \frac{Employees}{population}$$

Labour productivity

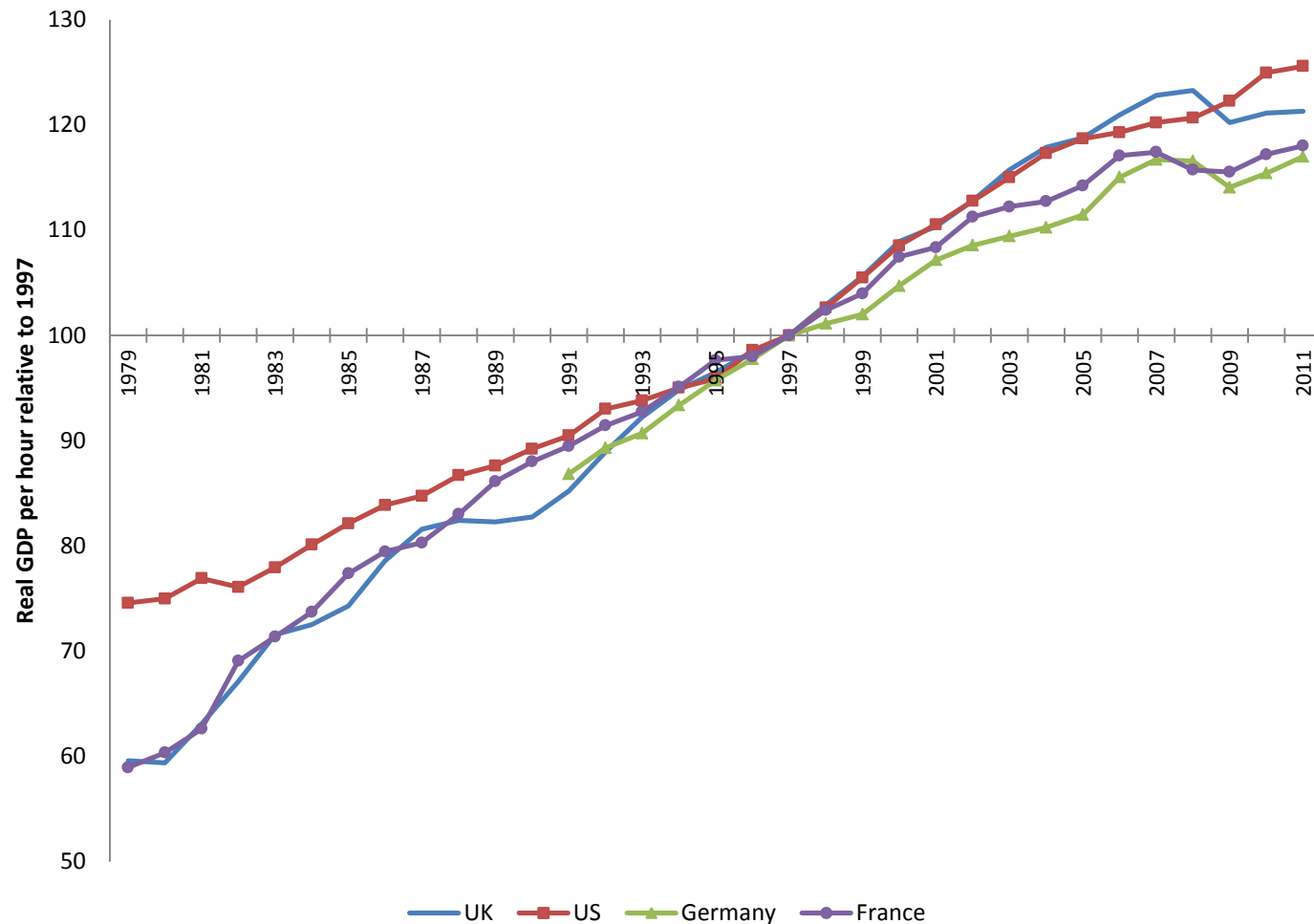
Employment Rate

# Productivity: GDP per worker growth (1997=100)



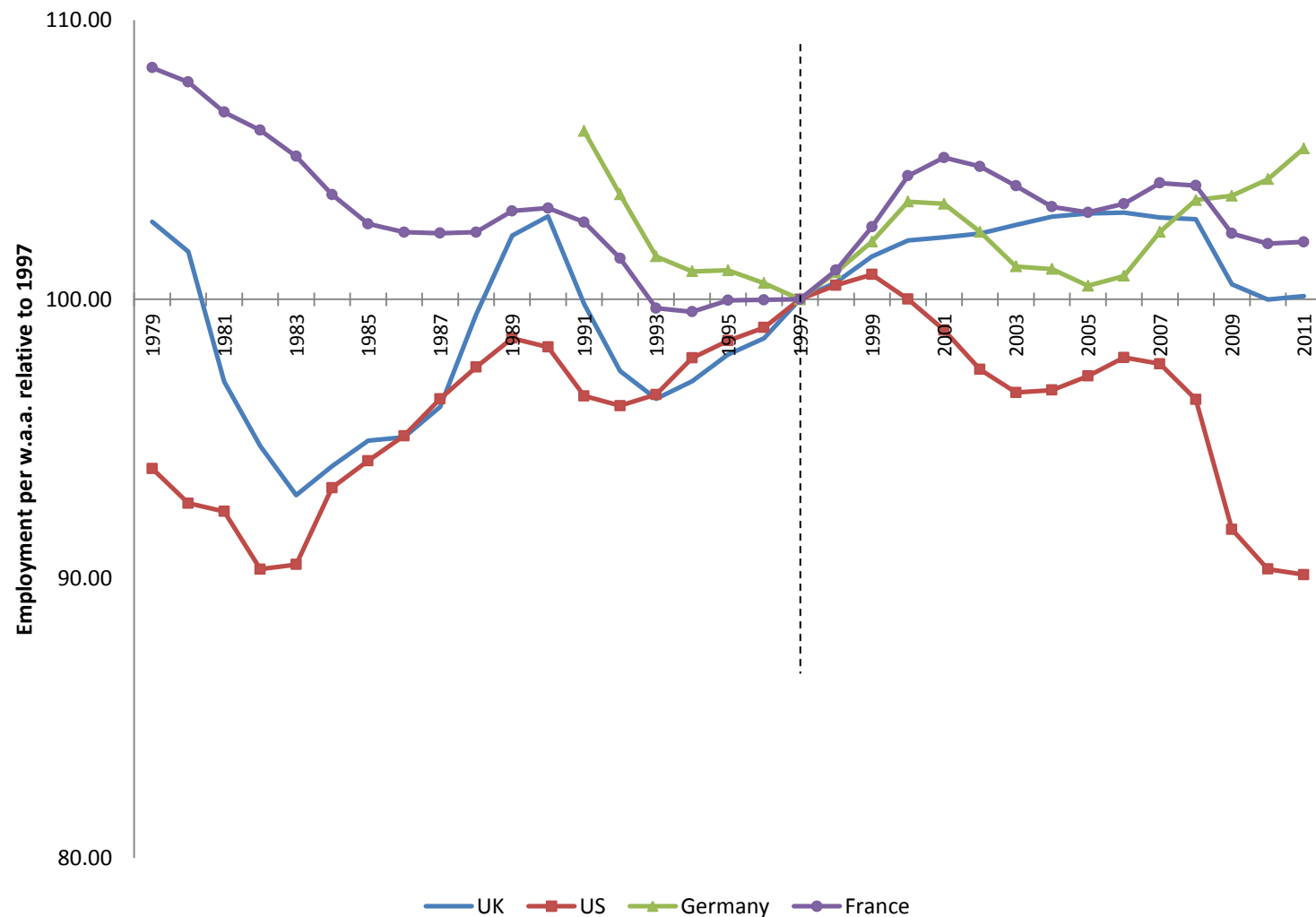
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# Productivity: GDP per hour growth (1997=100)



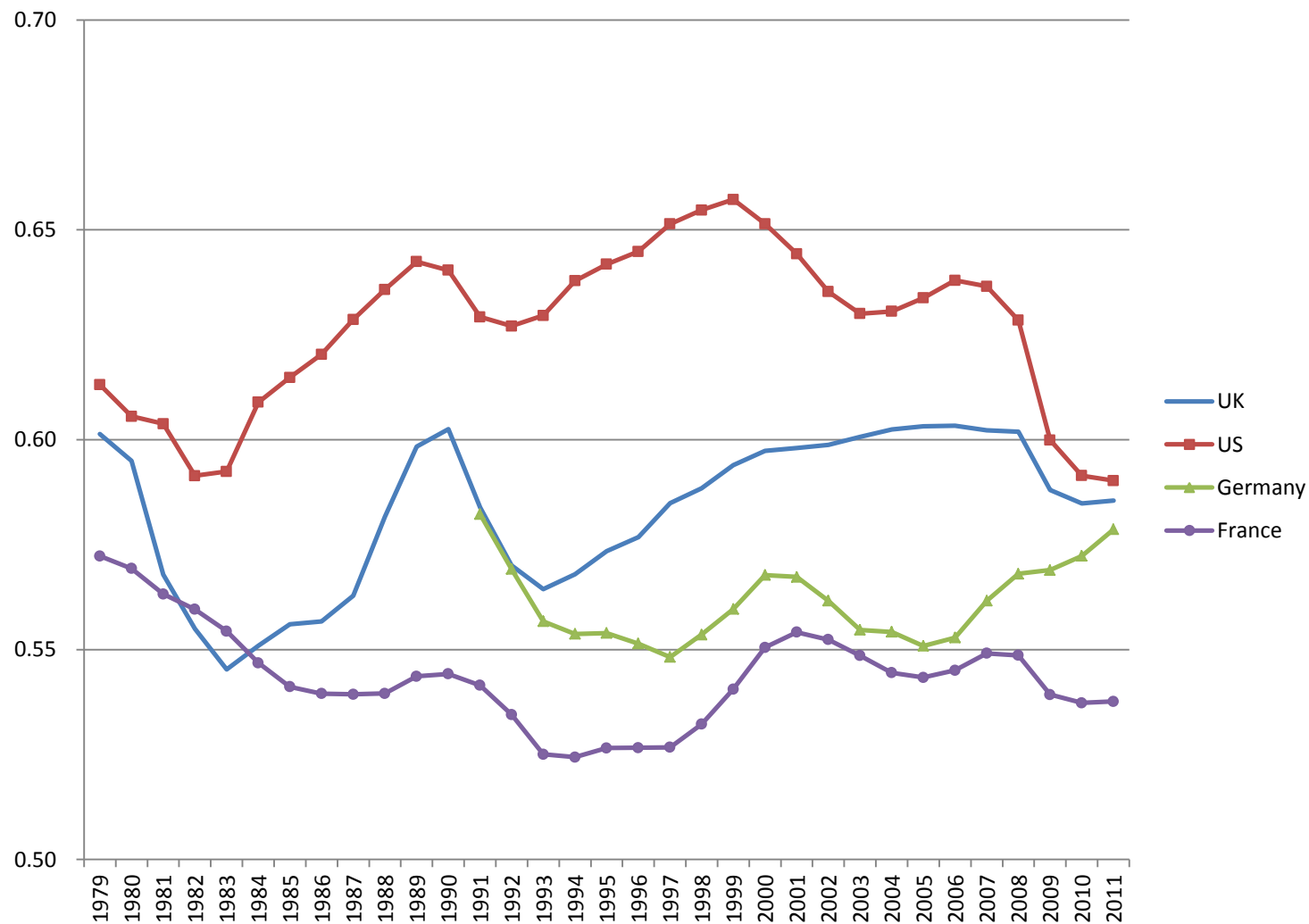
Notes: CB data GDP is US\$, constant prices, constant PPPs, (CB based year: 2011).

# Employment Rate (Workers per adult) growth



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# Employment per adult

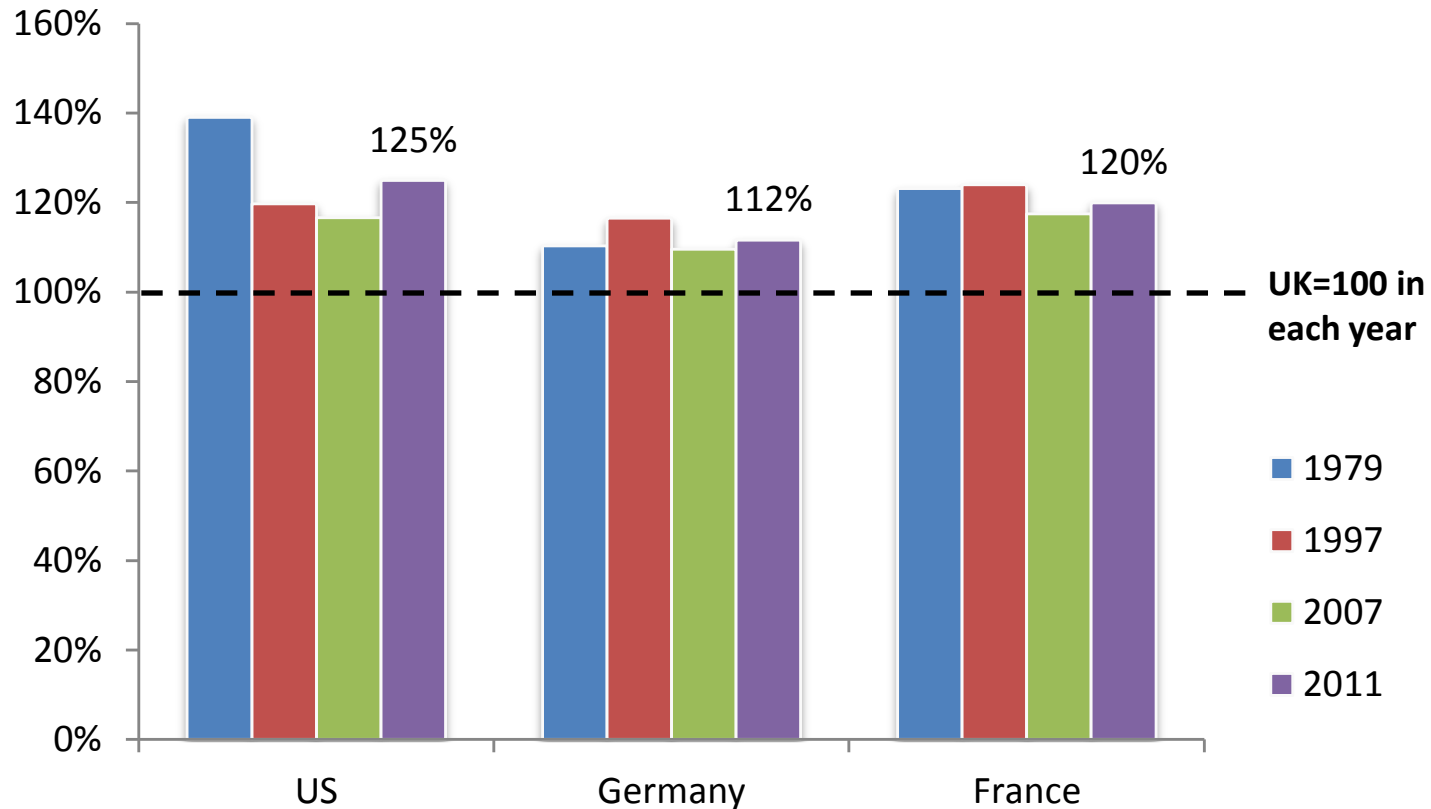


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# UK still lags behind in total economy productivity levels

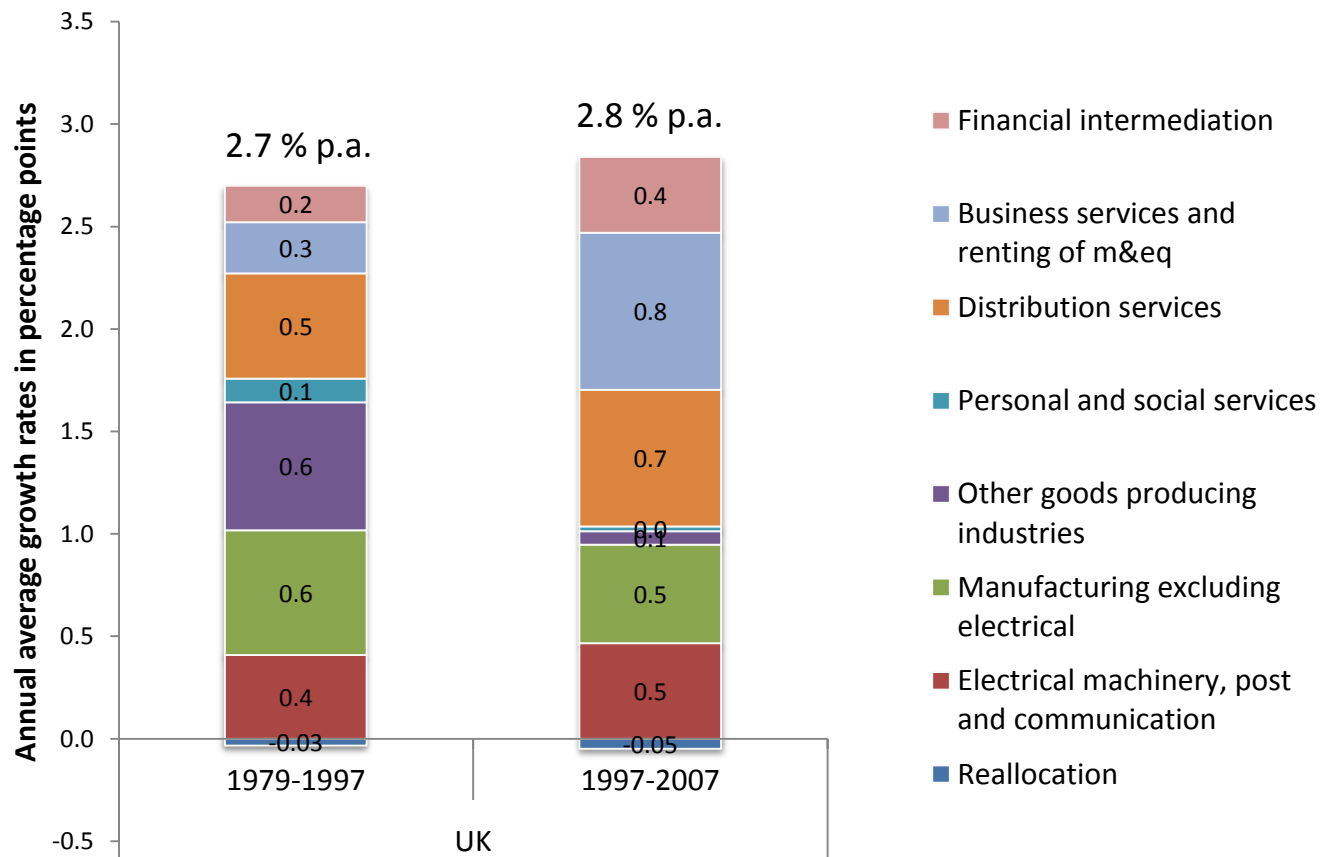
## GDP per hour levels (UK=100)



Notes: Analysis based on CB data GDP is US\$, constant prices, constant PPPs.

# The sources of productivity growth by sector : It wasn't all finance in the 1997-2007 boom

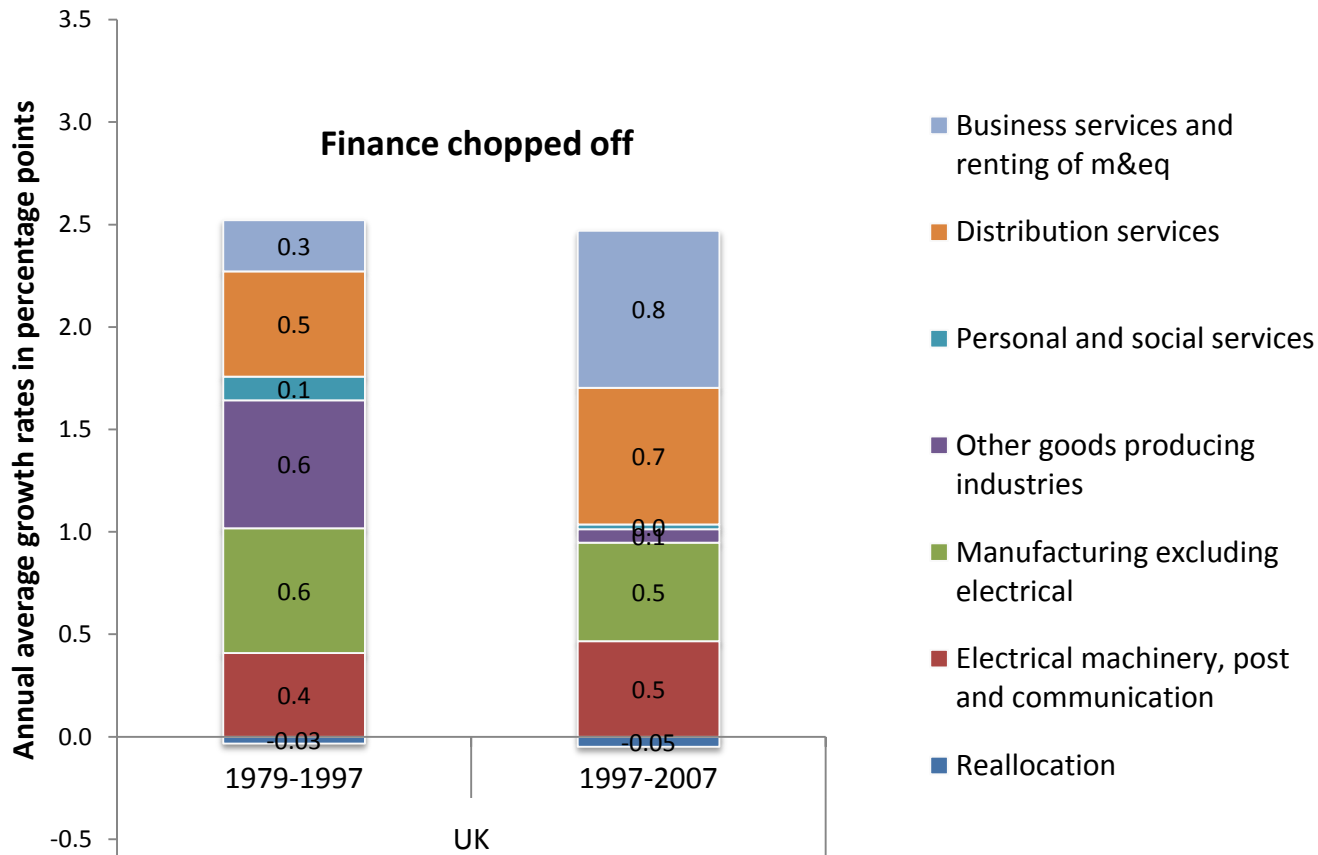
## Sector contributions to market economy labour productivity growth (1979-2007)



Notes: Analysis based on EU KLEMS data. Average sectoral growth rates for the periods 1979-1997 and 1997-2007 are weighted by each sector's average share in market economy nominal GVA (GDP less taxes, plus subsidies) over the relevant period. Reallocation effect refers to the labour productivity effects of reallocations of labour between sectors that have different productivity.

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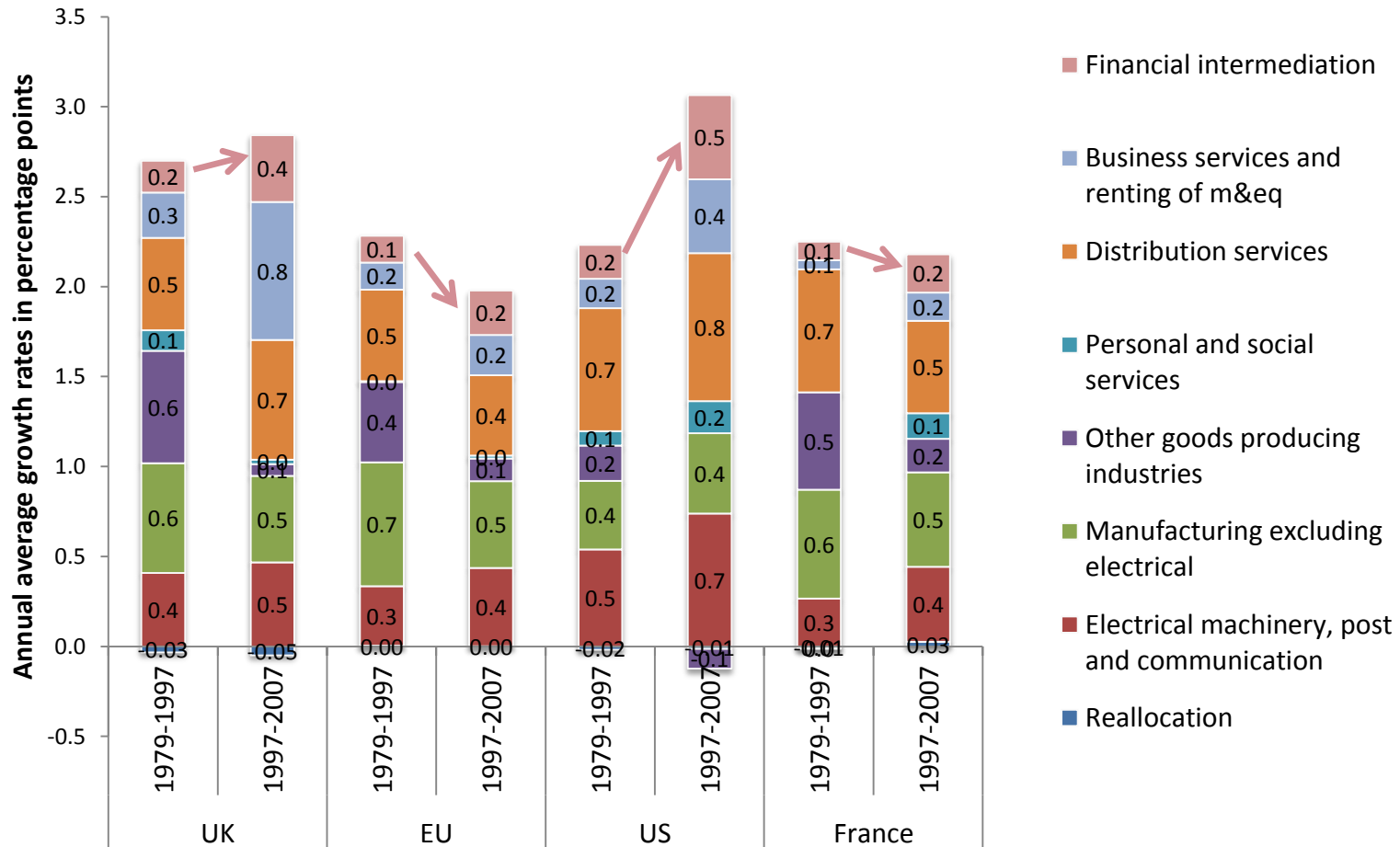
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# Sources of productivity growth: Skills and ICT became more important post 1997

## Sources of market economy productivity growth (1979-2007)



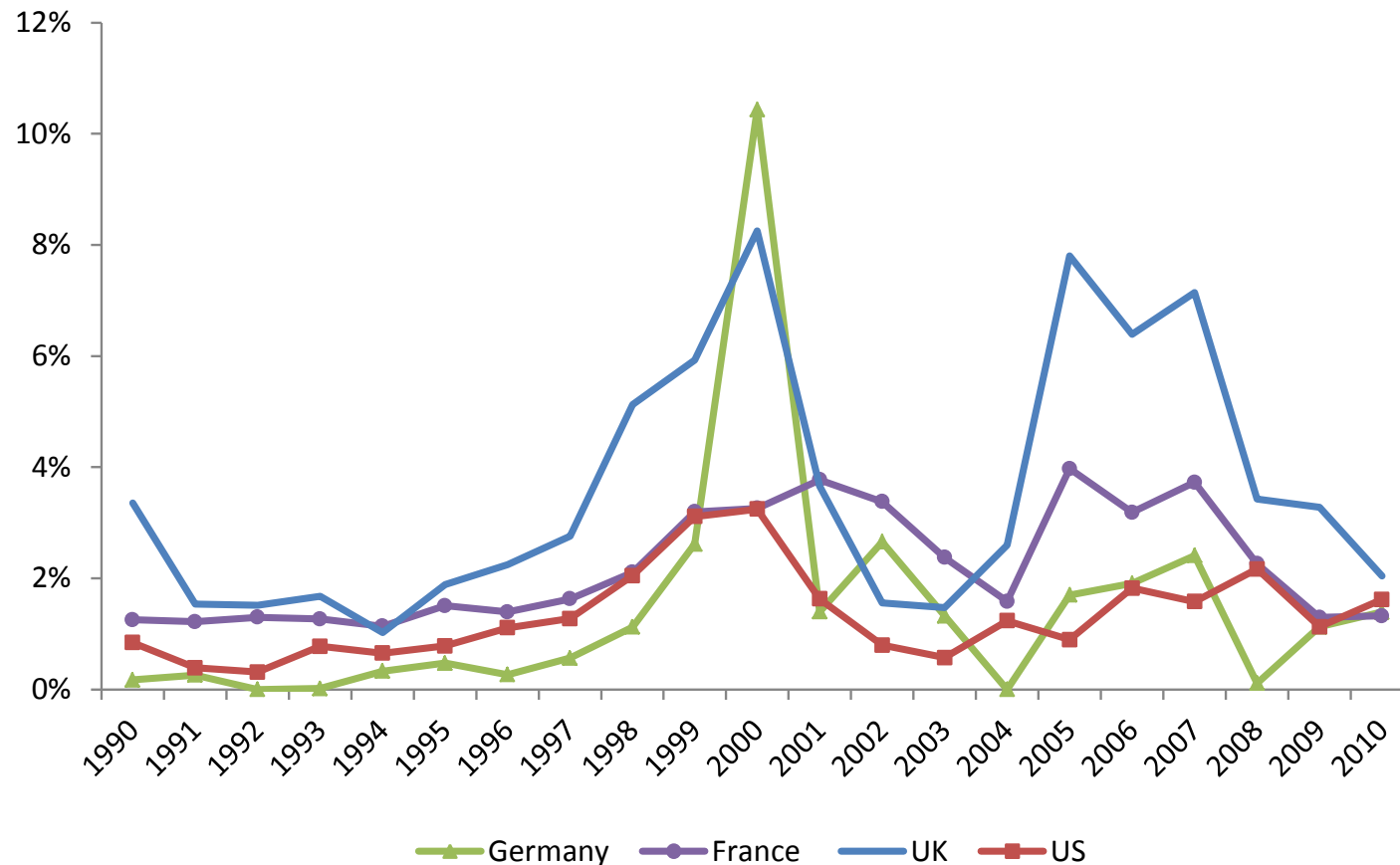
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# Other measures of business performance

- Focus on productivity because it's key measure of long-run performance for economists
- But also look at
  - Investment (overall and FDI)
  - Innovation
  - Education and skills
  - Management
  - Entrepreneurship
  - Profits
  - Trade
  - Regional Inequality
- Overall, more of a mixed bag. Positive trends but still problems in levels

# The UK has been successful at attracting FDI, with inward FDI higher than comparators

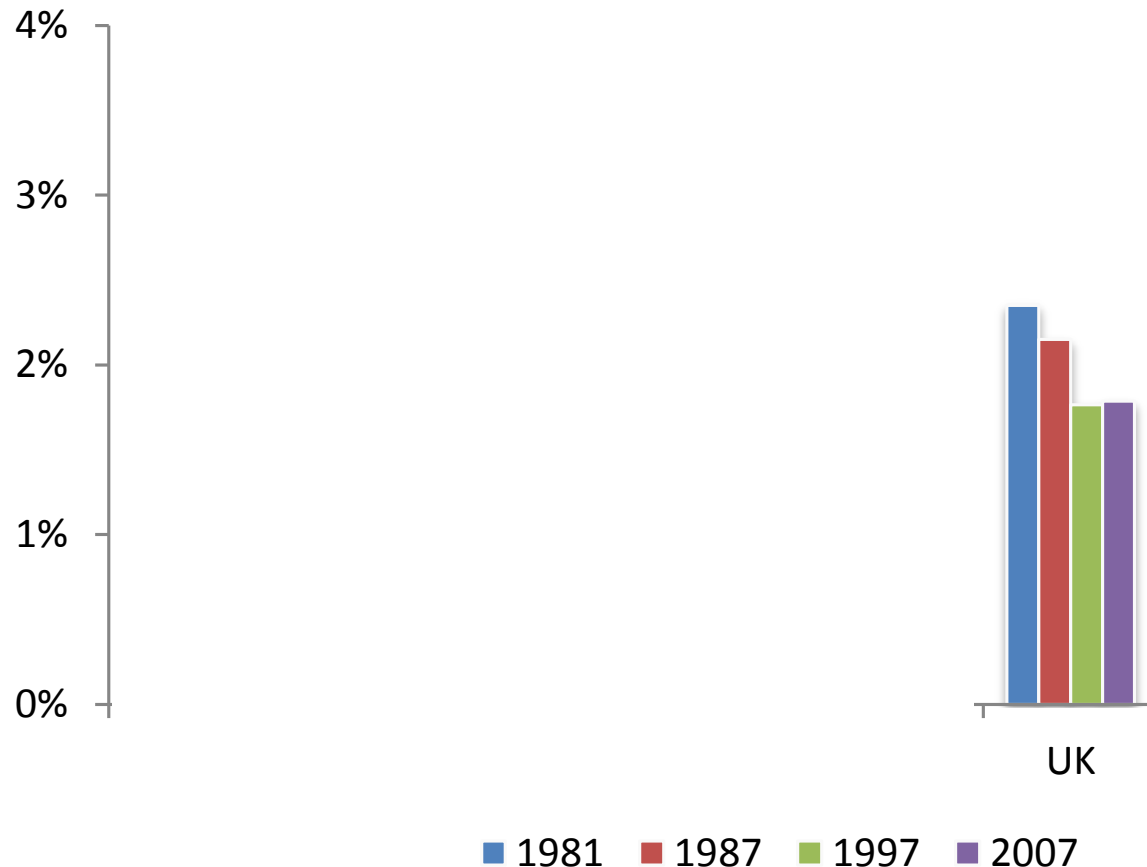
## Inward Foreign Direct Investment Flows (% GDP)



Notes: Analysis based on OECD data

# R&D has increased slightly as a proportion of GDP between 1997 and 2007 after falling since late 1970s

## Gross Domestic Expenditure on R&D (GERD), as a % of GDP



Notes: OECD MSTI June 2010 (data not available on a consistent basis prior to 1981)



# Proportion of workers with a college degree has risen faster in UK than other countries

## Percentage of 25-64 year old population by educational level



Notes: Data from OECD Education at a Glance (2010)

# Summary of UK performance 1997-2011

- Pretty good performance even if we include post 2008
- Continues 1979-1997 trend: UK GDP/cap grew faster than both the US and France
- Productivity growth was broad based – finance only a small contribution (business services and distribution matter more)
- Growth of efficiency (TFP) similar in both Lab and Con periods, but bigger contribution from skills and new technology post 1997
- Other indicators also show signs of improvement but **level** of productivity and other business indicators remains a problem

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**UK performance 1997-2010 looks good.....**



- **But was any of this was due to policy?**
  - Government reaped dividends of Conservative reforms: privatisation, anti-union laws, “lame duck” subsidies
- Conservatives reforms were unlikely to cause *permanent* increase in the rate of productivity growth (e.g. unions).
- Likely that some policies contributed:
  - **Competition, Education, Innovation & (maybe) immigration**
  - **Welfare to work reforms**
- **Caveat:** Lack of proper evaluation of most UK policies means much guesswork



# Competition Policy



- **Strong evidence** that increases in product market competition boost productivity
  - Empirical findings in Nickell (1996), Blundell et al (1999), Symeonidis (2000), Bloom & Van Reenen (2007, 2010), Holmes and Schmitz, (2010); MGI survey
- 1998 Competition Act & 2002 Enterprise Act. Competition authorities (Competition Commission & OFT):
  - Stronger (e.g. Cartel punishments & whistle blowers)
  - Less politicised (e.g. Merger policy)
  - More autonomous & better resourced
- Utility Regulation (2003 Communication Act & Ofcom Strategic Review)



# Innovation Policy



- **Growth theory** puts innovation at centre of productivity growth
  - “Spillovers” imply that too little R&D performed
- **Empirical evidence** shows that:
  - R&D boosts productivity growth
  - Tax incentives increase R&D (Van Reenen et al, 2002, 2012)
- UK R&D tax credit for small firms introduced in 2001 & extended to large firms in 2003
- Increases to the science budget (Haskel et al, 2010)
- R&D/GDP falling since ‘70s, but stabilised from mid- 2000s



## Education Policy

- Increases in human capital increase productivity via higher average labour quality but also through “spillovers” (e.g. Innovations).
- **Quantity of education increased through**
  - Expansion of Higher Education
  - Higher staying on rates (e.g. EMA, see Dearden et al. 2009)
- **Quality of Education?**
  - City Academies (Machin and Venoit, 2011)
  - Teaching interventions like Literacy & Numeracy Hours (McNally, 2010)
  - More qualifications, but concern over grade inflation

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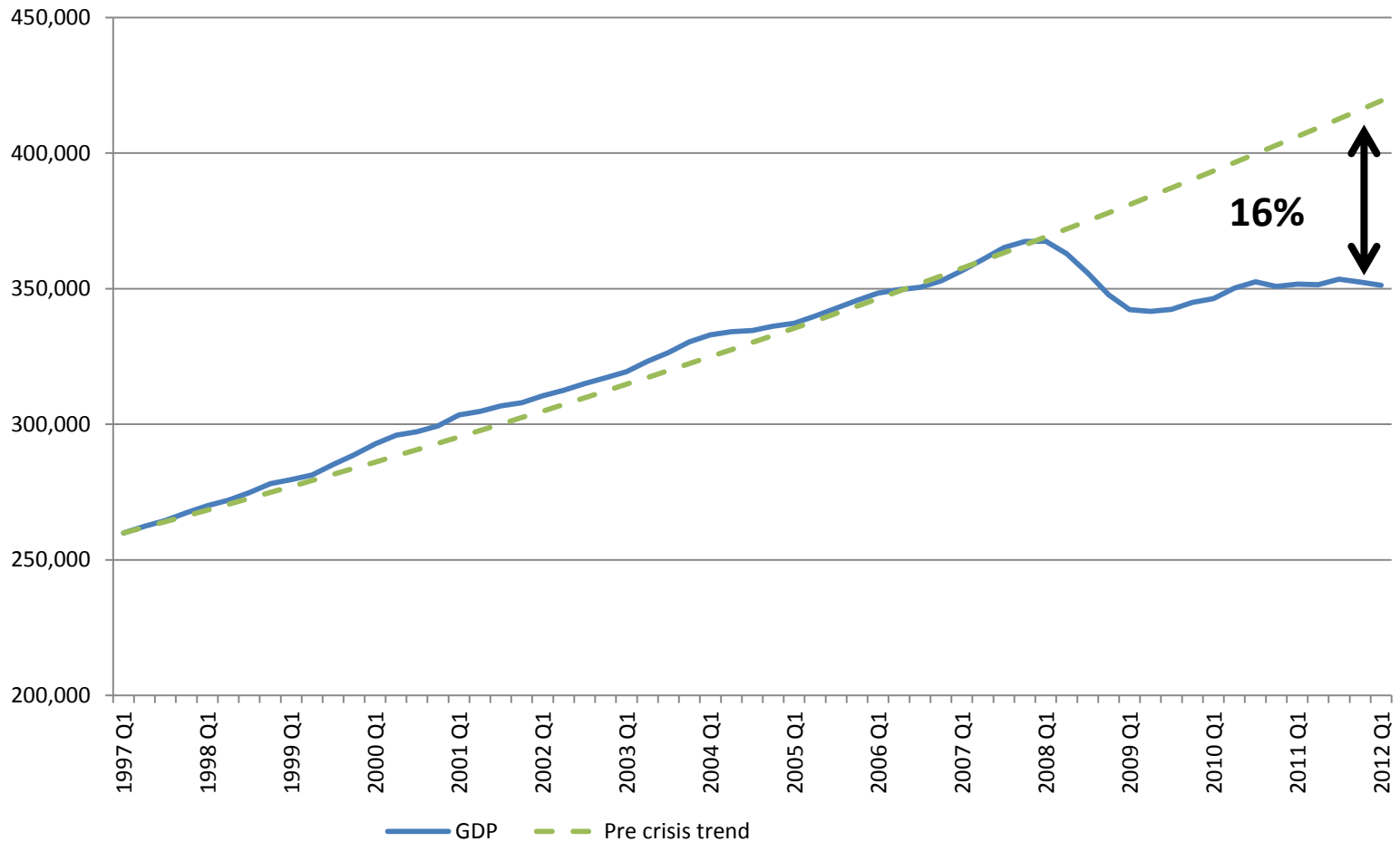
**Did the Great Recession change everything?**

# Did the Great Recession change everything?



# The Output Gap Debate

## GDP at market prices (2008 £ million)



Notes: ONS Q1 2012 Quarterly National Accounts, GDP in £ million, in real terms at market prices (seasonally adjusted)

# Did the Great Recession change everything?

- **What are the effects of Great Recession on potential output**
  - How much output permanently lost?
  - Lower productivity growth? Very unlikely (1930s policies)
- **Low Demand (recession, Eurozone, austerity)**
  - Model of partial Labour hoarding (especially in high productivity sectors) can match trends
  - Labour market performing relatively well in this recession: Wages and matching
- **Supply Side Pessimists**
  - Compositional shift out of high value added sectors like finance not large enough to account for productivity falls
  - Capital-Labour ratio rises
  - Skills & Innovation

# The Great Recession and beyond

- What are the effects of Great Recession on **potential output**
  - How much output permanently lost?
  - Is economy on a lower productivity growth trend?
- **“Output Gap”** is difference between potential & current output
  - If economy near full capacity output gap is close to zero, so if demand increases (e.g. Expansionary monetary and fiscal policies translate into higher inflation)
  - Supply side pessimists view that output gap is small/zero
  - OBR 2.5% vs. 14% (or 9.5% in Martin & Rowthorn, 2012)

# Estimating the Output Gap (“educated guesses”)

## 1. Statistical Filters

- Transparent, but depends on period over which one “smooths”

## 2. Production functions (OECD, EC, NIESR)

- Based on economic model, but sensitive to judgements, measurement and data revisions

## 3. Business surveys (Office Budget Responsibility)

- Uses wider range of timely information, but survey measurement issues & needs scaling to another method

## 4. Semi-structural approaches (IMF- Global Projection Model)

- More rigorous but very sensitive to econometric specification

# Pessimists: banking crisis reason for permanent damage

- **Direct effect** : banking a high productivity sector & shift of workers into other industries dampens aggregate productivity
  - But in long-term better allocation of UK talent to sectors creating positive spillovers (e.g. High tech manufacturing & ICT)
  - Evidence on direct effect suggests only small (e.g. Martin, 2011; BoE, 2011). Productivity fell a lot in in finance, but large falls were witnessed in others sectors too.
- **Indirect effects of banking crisis**
  - Less efficient allocation of capital
  - Fewer new company formations, capital scrapping or ...
  - Evidence is unclear (Oulton, 2012). Although crises followed by slow growth (i) depends on policy response, (ii) lots of heterogeneity



# Indirect Evidence for Pessimists



- **Recent poor growth performance**
  - Global demand low. Real improvements pre-2007
- **Oil Producing Sector in decline**
  - Long trend, oil not big contribution to productivity 1997-2007
- **High inflation shows we have little spare capacity**
  - Mainly “imported” inflation – domestic wages inflation very low
- **Hiring in 2010-11 evidence for little spare capacity?**
  - Real wage cuts keep jobs up
  - Partial labour hoarding with expansion of low productivity sector based on over-optimistic growth of sales (Martin & Rowthorn, 2012) . Second half of 2011 job growth stalls
- **Business Surveys** – But answers adjust to the cycle



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# Policies

- **To promote long term growth we need to:**
  - Expand the potential of the economy via supply side policies (**LSE Growth Commission**)
  - Run the right macro policies: helping recovery from recession by running at current potential
- Many important factors are outside direct influence of UK economic policy (e.g. Eurozone, US debt ceiling, China, ....)
- **Nevertheless, UK domestic policy does matter.**

## In designing long term supply side policies, key points are:

- **Listen to what Growth theory tells us:** Importance of innovation, human capital, competition & creative destruction, good governance
- **Admit our “collective ignorance”:** There is no single “magic bullet” to growth – need to experiment, evaluate and learn.
- **Prioritise & think of overall strategy**
- **Appreciate the complementarities or trade-offs between policies:** “laundry lists” are not enough (though we will give one in a minute!)

## **“Plan V” strategies involve the right environment for growth, and some targeted enabling policy**

- Economists rightly wary of too interventionist a stance
- Despite this most governments do have a *de facto* industrial policies (e.g. towards exports and FDI).
- Policies should be focused on the intersection between the areas of global growth and local comparative advantage.
  - Areas like: bio-pharmaceuticals, financial and business services, creative industries and some areas of ICT
  - Look at barriers and useful pro-active policies

## **Some specific “Plan V” policies which we will briefly run through...**

- Competition
- Education and skills
- Infrastructure
- Financial markets
- Higher education
- Immigration
- Public sector productivity
- Regulation and planning
- Taxation

# Long-run growth policies: some thoughts

- **Competition**

- Education and skills
- Infrastructure
- Financial markets
- Higher education
- Immigration
- Public sector productivity
- Regulation and planning
- Taxation


- Merger of OFT and CC could be a distraction
- Stalling of greater international market integration
- Dangers of trade protection

# Long-run growth policies: some thoughts

- Competition
- **Education and skills**
  - Literacy and numeracy rates
  - Education leaving age
  - Apprenticeships for under 19 year olds
- Infrastructure
- Financial markets
- Higher education
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# Long-run growth policies: some thoughts

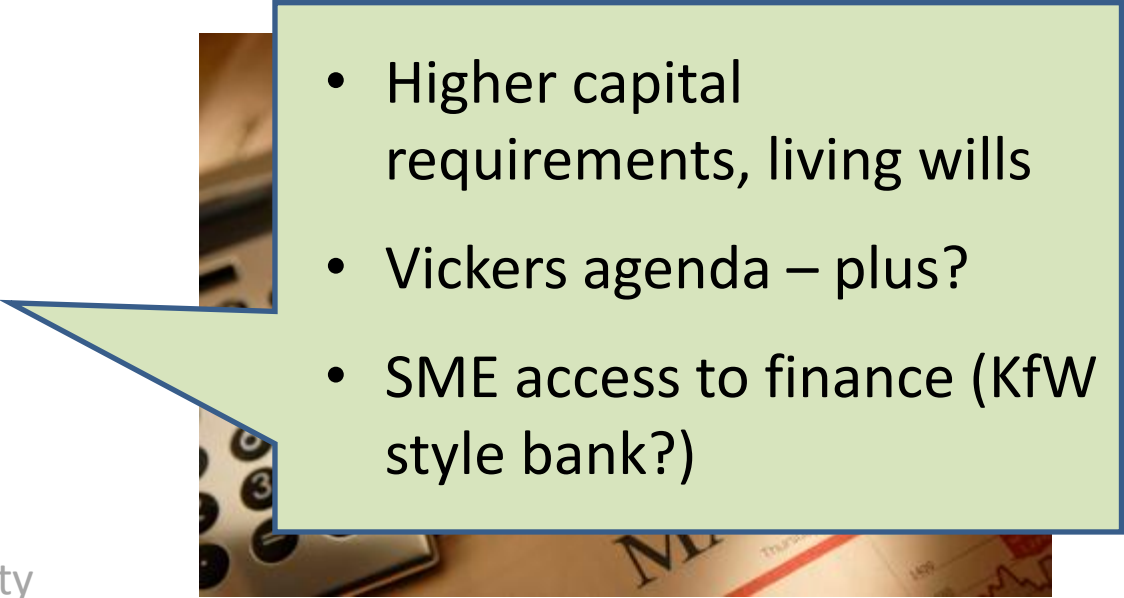
- Competition
- Education and skills
- **Infrastructure**
- Financial markets
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- 
- Public investment (at a time of low interest rates) will not “spook” markets
  - Many smaller projects – larger and less risky returns than “grand projet”
  - Expand remit of GIB
  - Transport (re-read Eddington!)




# Long-run growth policies: some thoughts

- Competition
- Education and skills
- Infrastructure
- **Financial markets**
- Higher education
- Immigration
- Public sector productivity
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- Taxation

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- Higher capital requirements, living wills
  - Vickers agenda – plus?
  - SME access to finance (KfW style bank?)

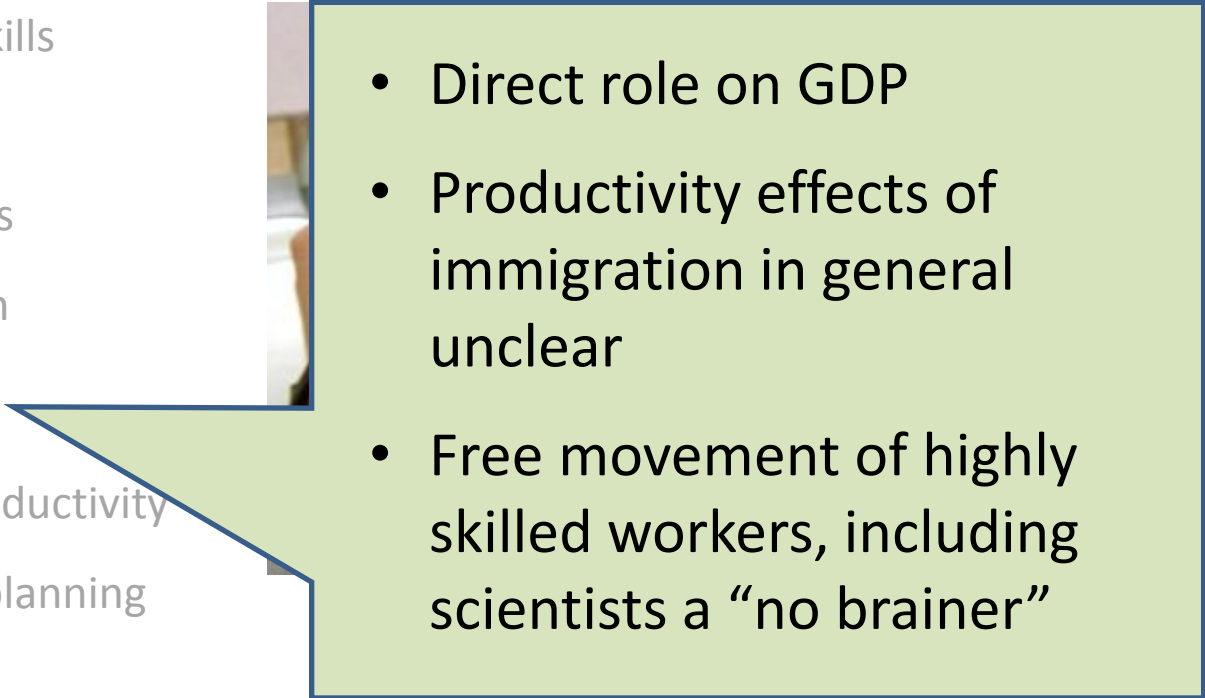
# Long-run growth policies: some thoughts

- Competition
- Education and skills
- Infrastructure
- Financial markets
- **Higher education**
- Immigration
- Public sector productivity
- Regulation and planning
- Taxation

- 
- Human capital, scientific innovation and an export industry
  - Risks of tougher immigration policy for highly skilled

# Long-run growth policies: some thoughts

- Competition
- Education and skills
- Infrastructure
- Financial markets
- Higher education
- **Immigration**
- Public sector productivity
- Regulation and planning
- Taxation

- 
- Direct role on GDP
  - Productivity effects of immigration in general unclear
  - Free movement of highly skilled workers, including scientists a “no brainer”

# Long-run growth policies: some thoughts

- Competition
- Education and skills
- Infrastructure
- Financial markets
- Higher education
- Immigration
- **Public sector productivity**
- Regulation and planning
- Taxation

- Competition, information & choice
- Design implementation needs care (e.g. NHS price competition)
- Need more geographical (& individual) variation in public sector pay

# Long-run growth policies: some thoughts

- Competition
- Education and skills
- Infrastructure
- Financial markets
- Higher education
- Immigration
- Public sector productivity
- **Regulation and planning**
- Taxation

- High tech clusters held back by planning system
- Planning and retail productivity
- Labour market regulation & Beecroft. Not UK's major problem

# Long-run growth policies: some thoughts

- Competition
- Education and skills
- Infrastructure
- Financial markets
- Higher education
- Immigration
- Public sector productivity
- Regulation and planning
- Taxation

- Agree with thrust of Mirrlees
- Real issues with complexity and instability rather than marginal rates
- Removal of special deductions (e.g. IHT and family firms), removing corporate tax bias towards debt



## Conclusions and discussion

- UK growth record since 1997 pretty good & broadly continued trend from 1979
- Not solely “unbalanced” bubble from finance, property & government
- Some benefit from policies over competition, education & innovation
- In presence of significant output gap room for slowing fiscal consolidation
- Long term policies need coordinated strategy drawing on lessons from past

# References

- LSE Growth Commission  
<http://cep.lse.ac.uk/LSEGrowthCommission/>
- [Full version of the Report](#)
- [http://cep.lse.ac.uk/conference\\_papers/15b11\\_2011/CEP\\_Report\\_UK\\_Business\\_15112011.pdf](http://cep.lse.ac.uk/conference_papers/15b11_2011/CEP_Report_UK_Business_15112011.pdf)