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# Macro Economic Outlook

Jan 2016

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Institute of Directors

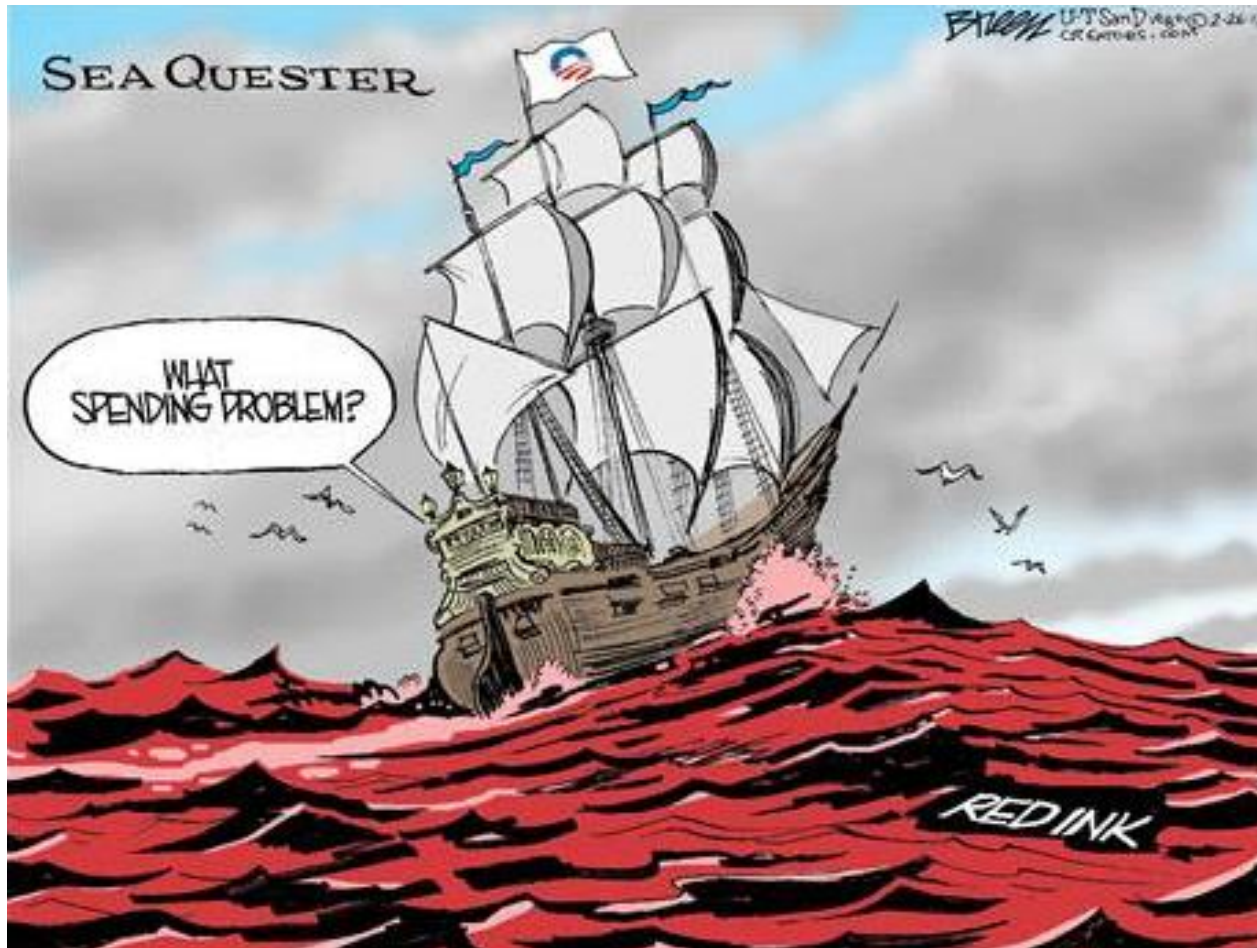
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[@jamesrsproule](#)



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# Macro economic and Spending Review



## Immediate Priorities

- UK Economy and Public Finances
  - Assumption of very stable growth ~2.4% allows spending: tax credits, pensions plus
  - Tax revenues forecast to rise by 15%-20% p.a.
  - Cost of debt expected to remain below 3%
  - TME rising from £756b to £857b
  - Budget to be in surplus by 2020
  - Debt to GDP moves from 82.5% to 71.3%
  - HS2 costs rise still further

## Long Term Economic Plan

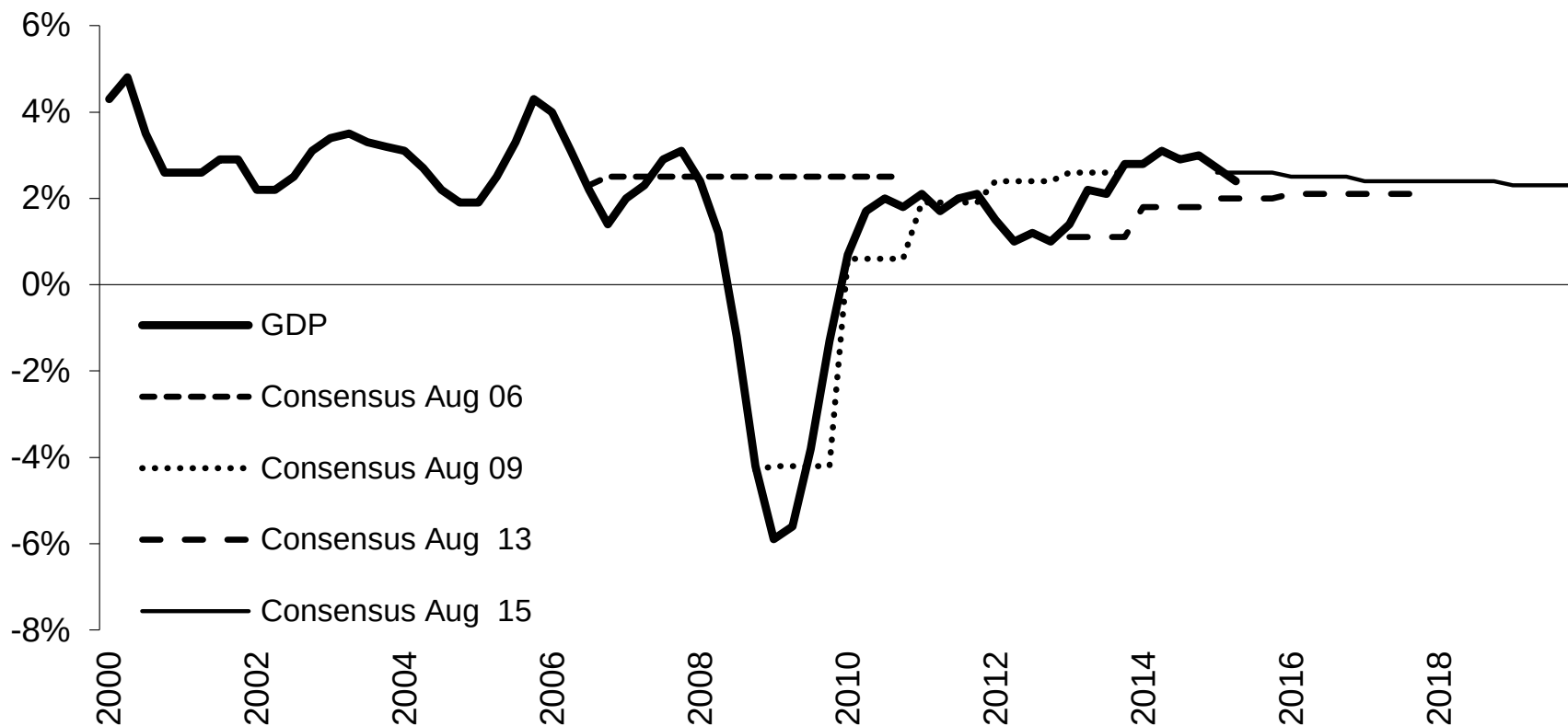
- Put public finances on sustainable path
  - Run budget surplus in “normal circumstances”
  - Live within ~36% of GDP tax take
  - Improve agility
- Ring fence remains
- Richest fifth pay 58% of all tax
- Housing: increase supply or demand?



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# UK economic forecasts remain too calm

UK GDP  
(HM Treasury consensus survey forecast)



Source: ONS, HM Treasury Consensus

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# Spending Review



# Key long term backdrops

## Demographics

- UK working age pop declining by 1/2% p.a. through 2030
- GDP acct takes trend rate of growth from 2.5% to 0.8%
- Solutions: work longer; save more; flex employment; mass migration; exist on less...

## Technology

- Effect of technology will increasingly be its impact on existing business
- Disruptors abound, placing premium on agility
- Business revenues are volatile, limiting investors long term appetite?

## Government

- Rising expectations of what government can deliver
- Constant budgetary pressure: more for less; reallocation of spending
- Max tax revenue or nudge/ send signals?

## The four excesses of the credit crisis

- ✓ ✗ • Government deficits have driven debt to unsustainable levels
- ✓ ✗ • Household debt rose to unsustainable levels, Housing prices were inflated by excess credit
- ✓ • Corporate balance sheets were over extended
- ✓ • Banks balance sheets became over extended

*Bottom line – the post crisis rebuilding has some way to go...*



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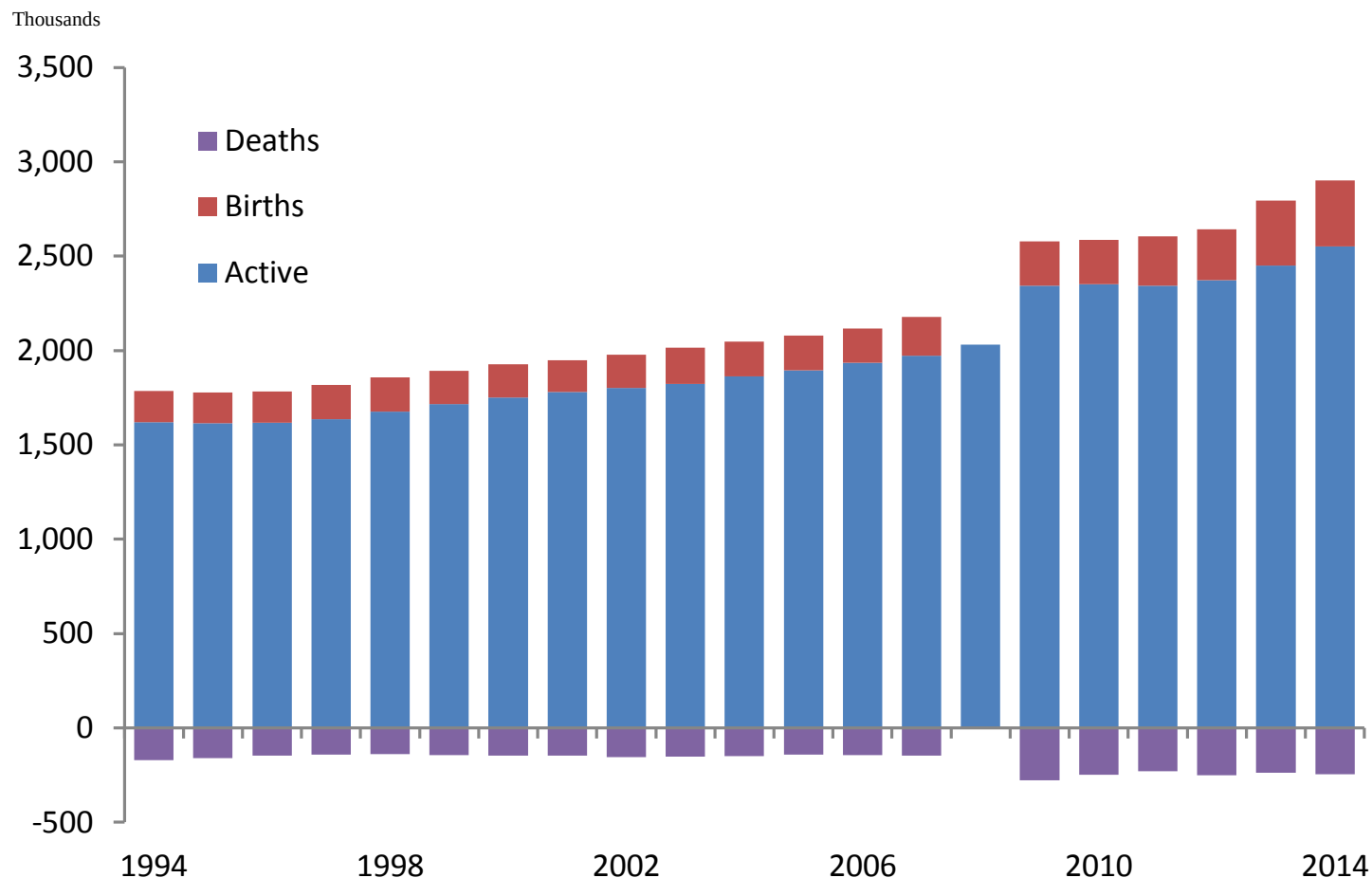
# UK Business Landscape

|                                   | Businesses<br><i>thousands</i> | Employment<br><i>thousands</i> | Turnover <sup>1</sup><br><i>£ billions</i> |
|-----------------------------------|--------------------------------|--------------------------------|--------------------------------------------|
| All businesses                    | 5,243                          | 25,229                         | 3,521                                      |
| SMEs (0-249 employees)            | 5,236                          | 15,159                         | 1,647                                      |
| Small businesses (0-49 employees) | 5,205                          | 12,084                         | 1,170                                      |
| All employers                     | 1,277                          | 20,876                         | 3,290                                      |
| With no employees                 | 3,966                          | 4,353                          | 231                                        |
| 1-9                               | 1,044                          | 3,923                          | 424                                        |
| 10-49                             | 195                            | 3,807                          | 515                                        |
| 50-249                            | 31                             | 3,075                          | 477                                        |
| 250 or more                       | 7                              | 10,070                         | 1,874                                      |



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# UK Business Population



Source: ONS, BIS, IoD Policy Unit

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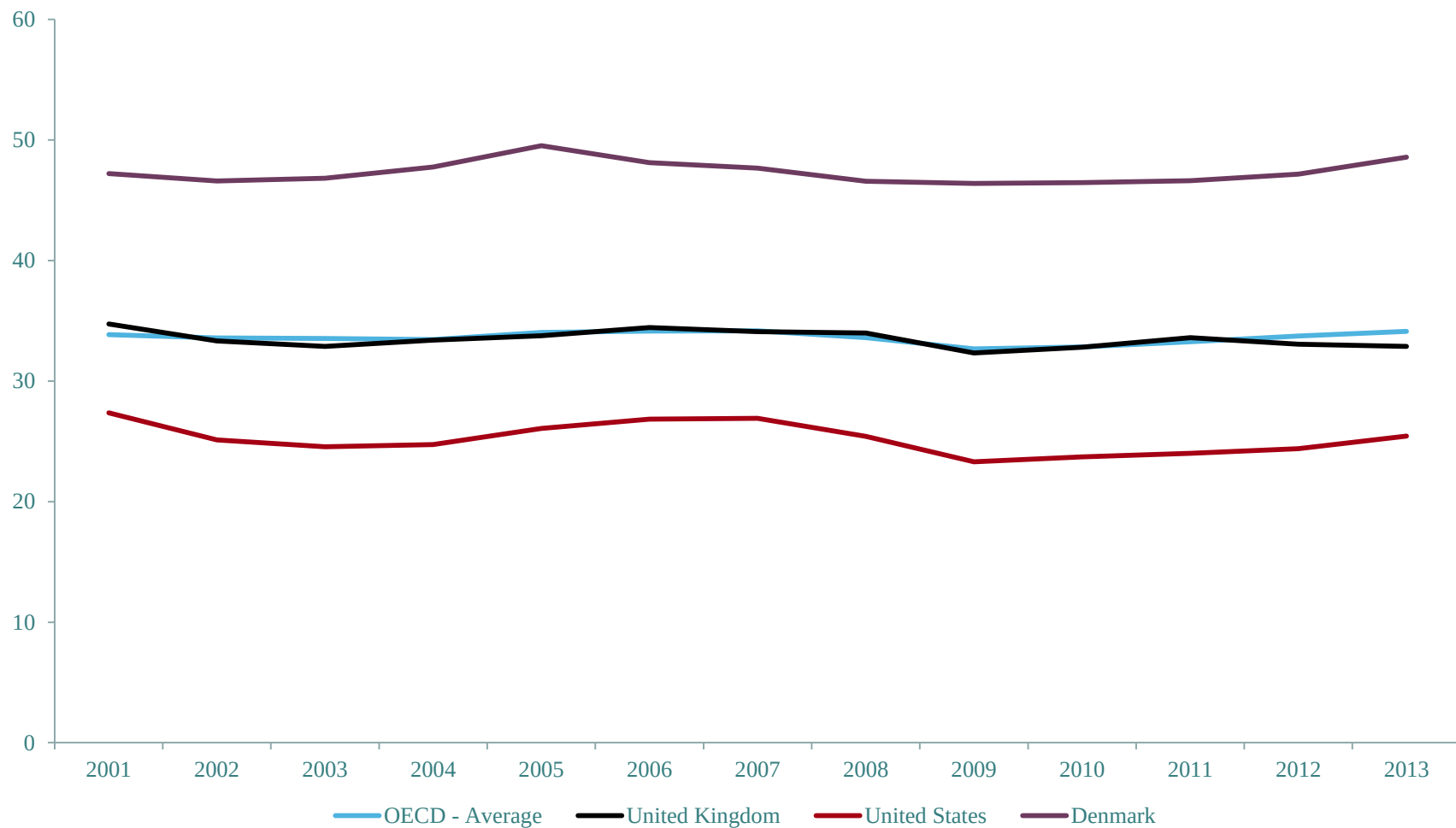
# Taxation – How much is too Much?





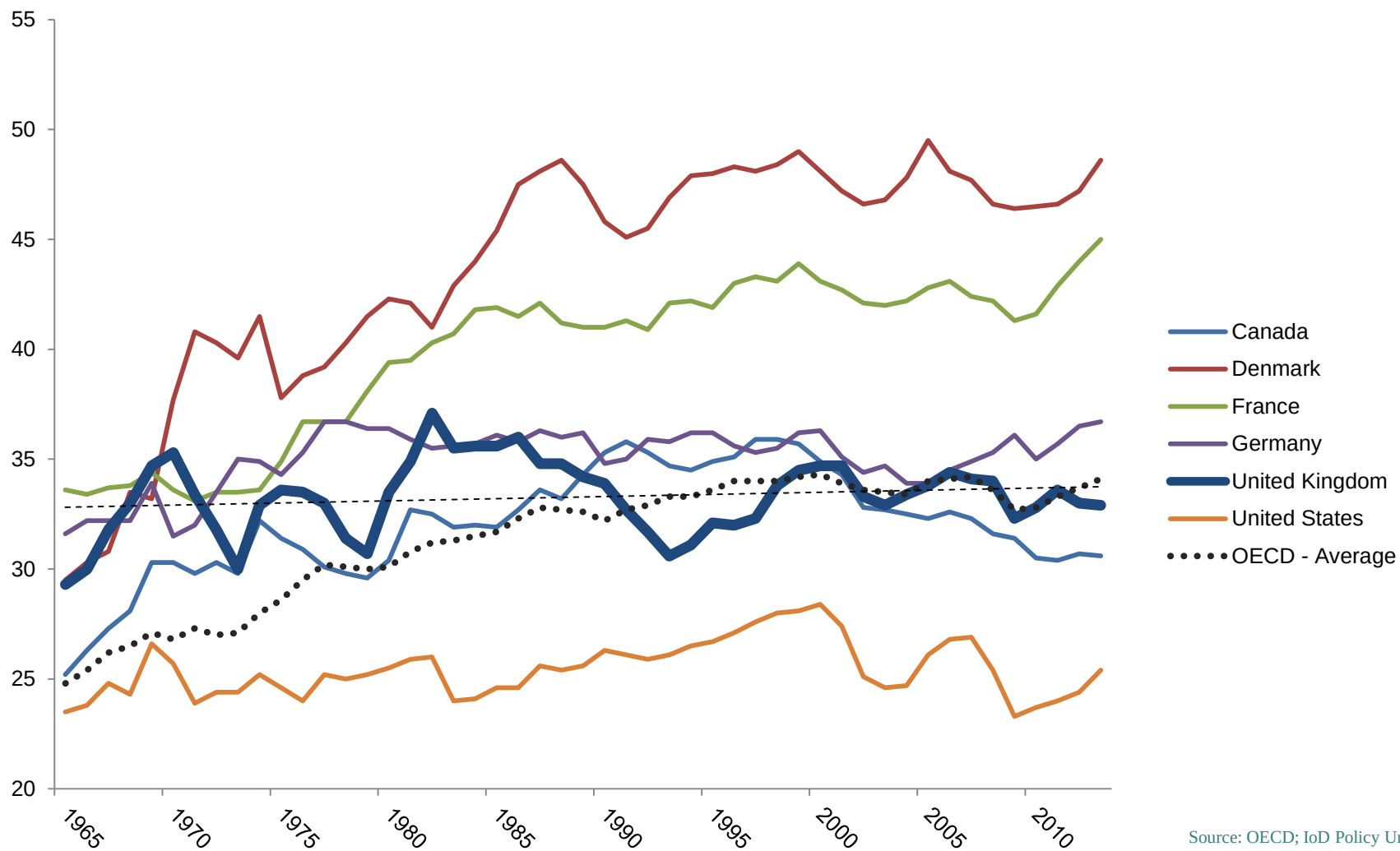
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# UK Taxation



Source: OECD

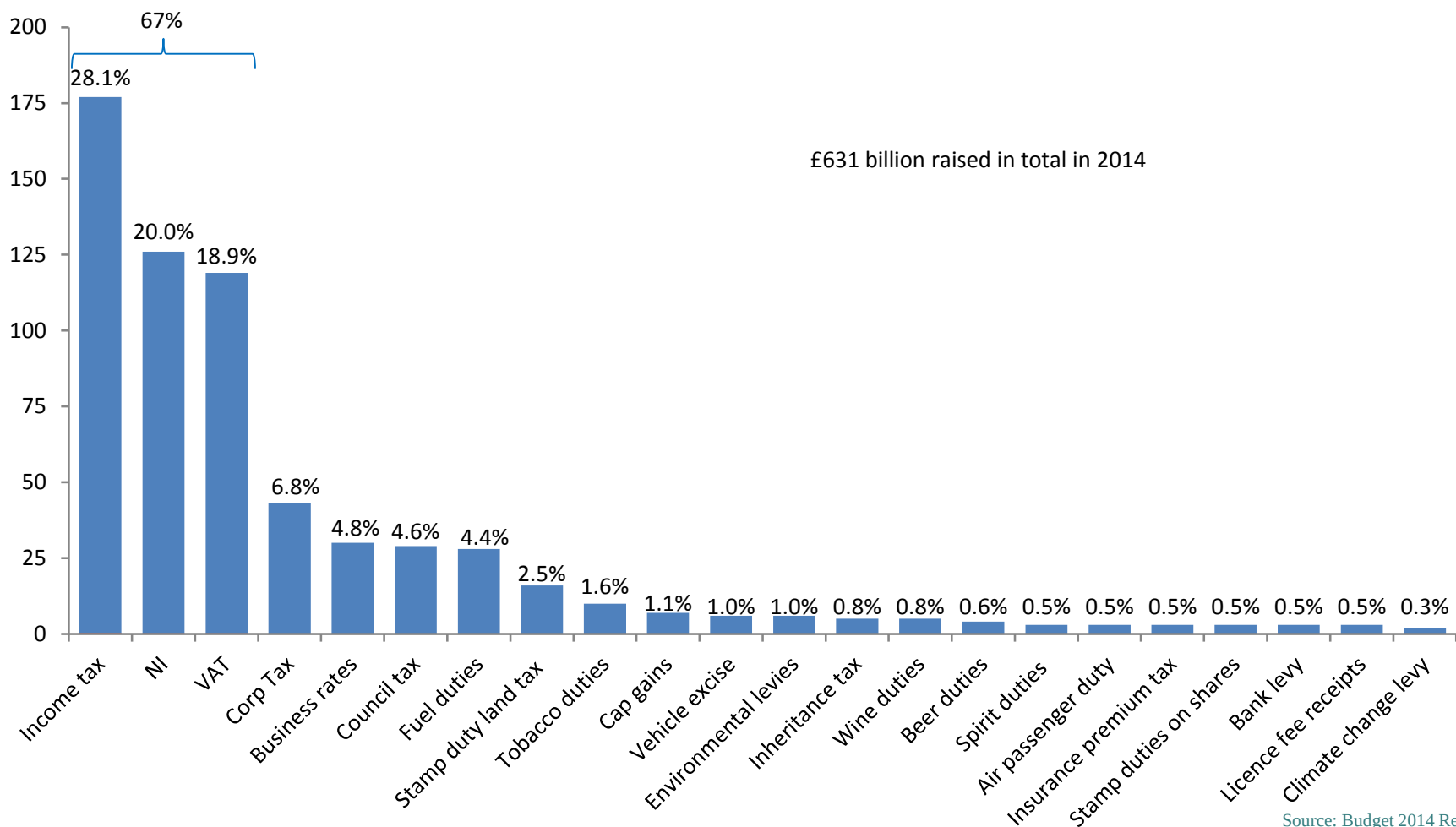
# Tax as a percent of GDP





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# Projected UK Tax Collection for 2015/16 (£billions)

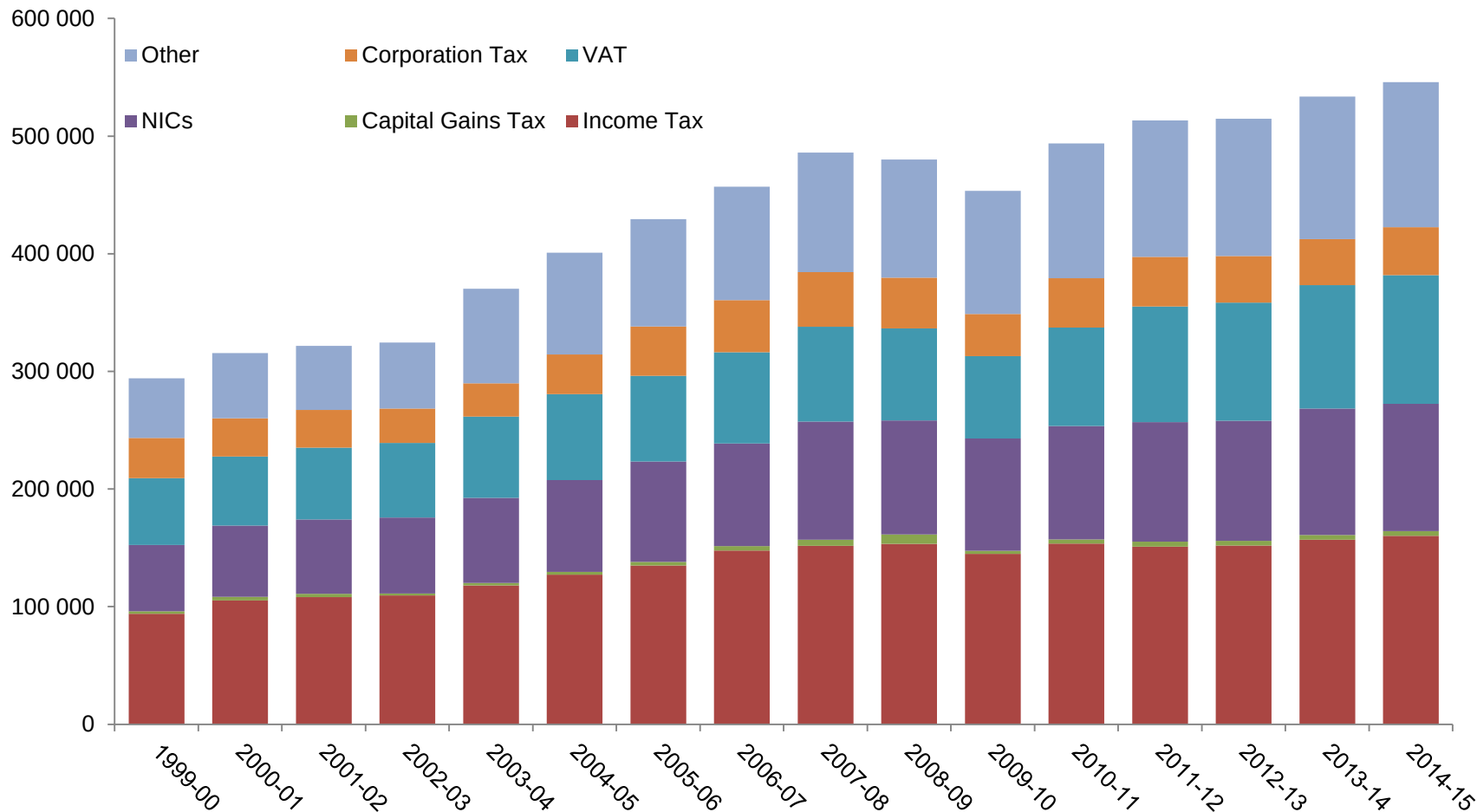


Source: Budget 2014 Red Book



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# Disaggregated Taxes (Nom. £ Bln)



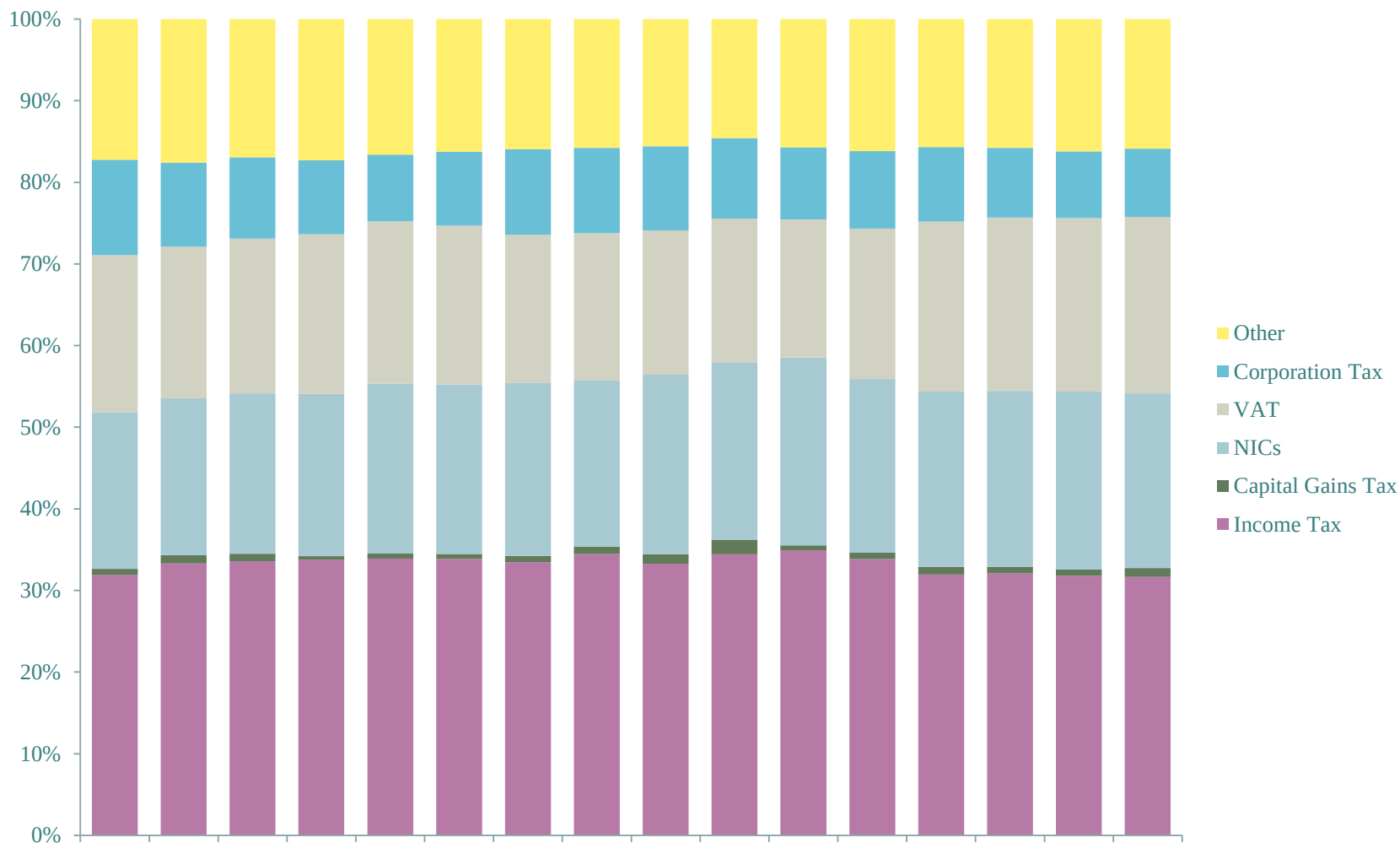
Source: HMRC, IoD Policy

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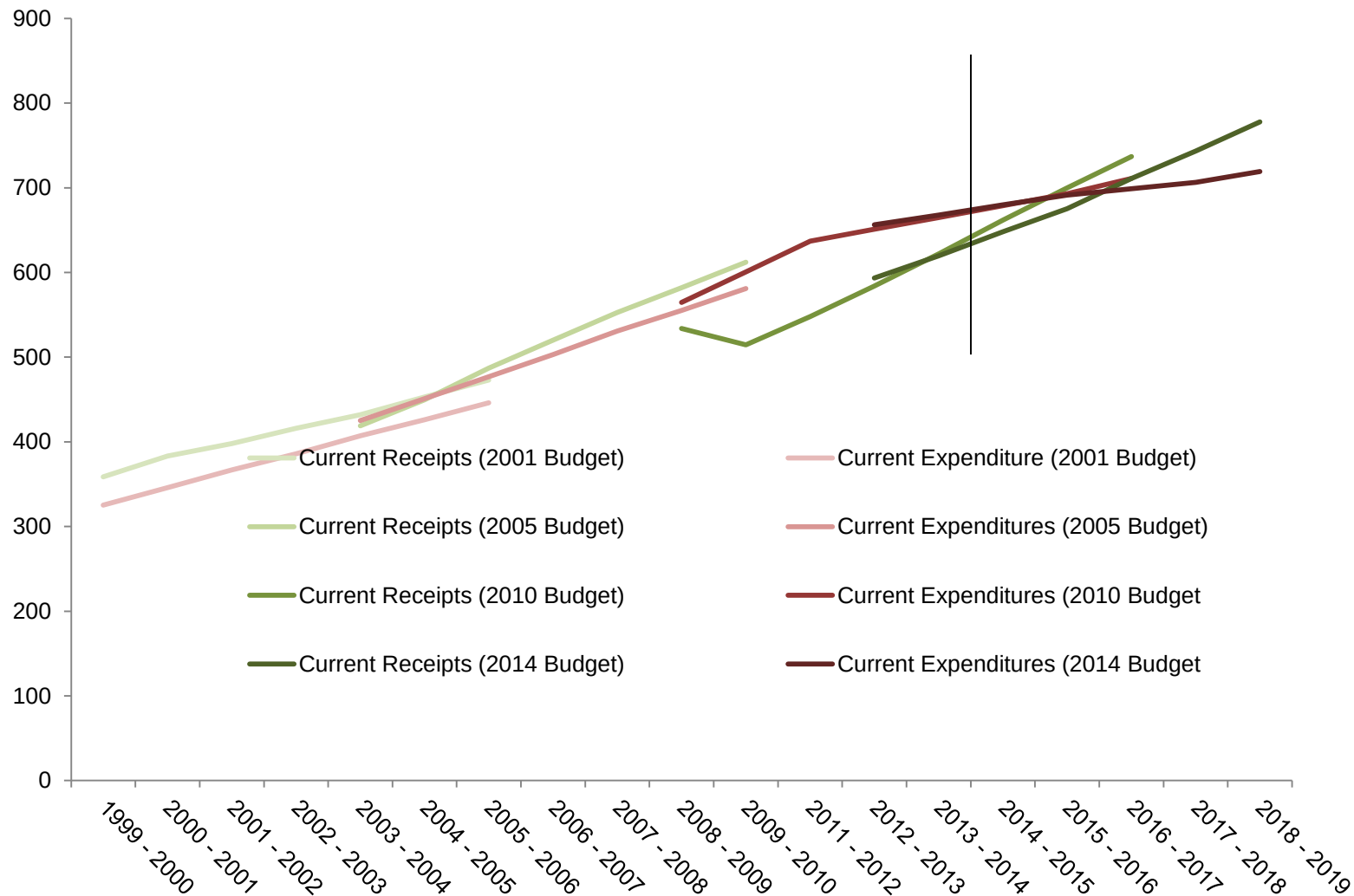


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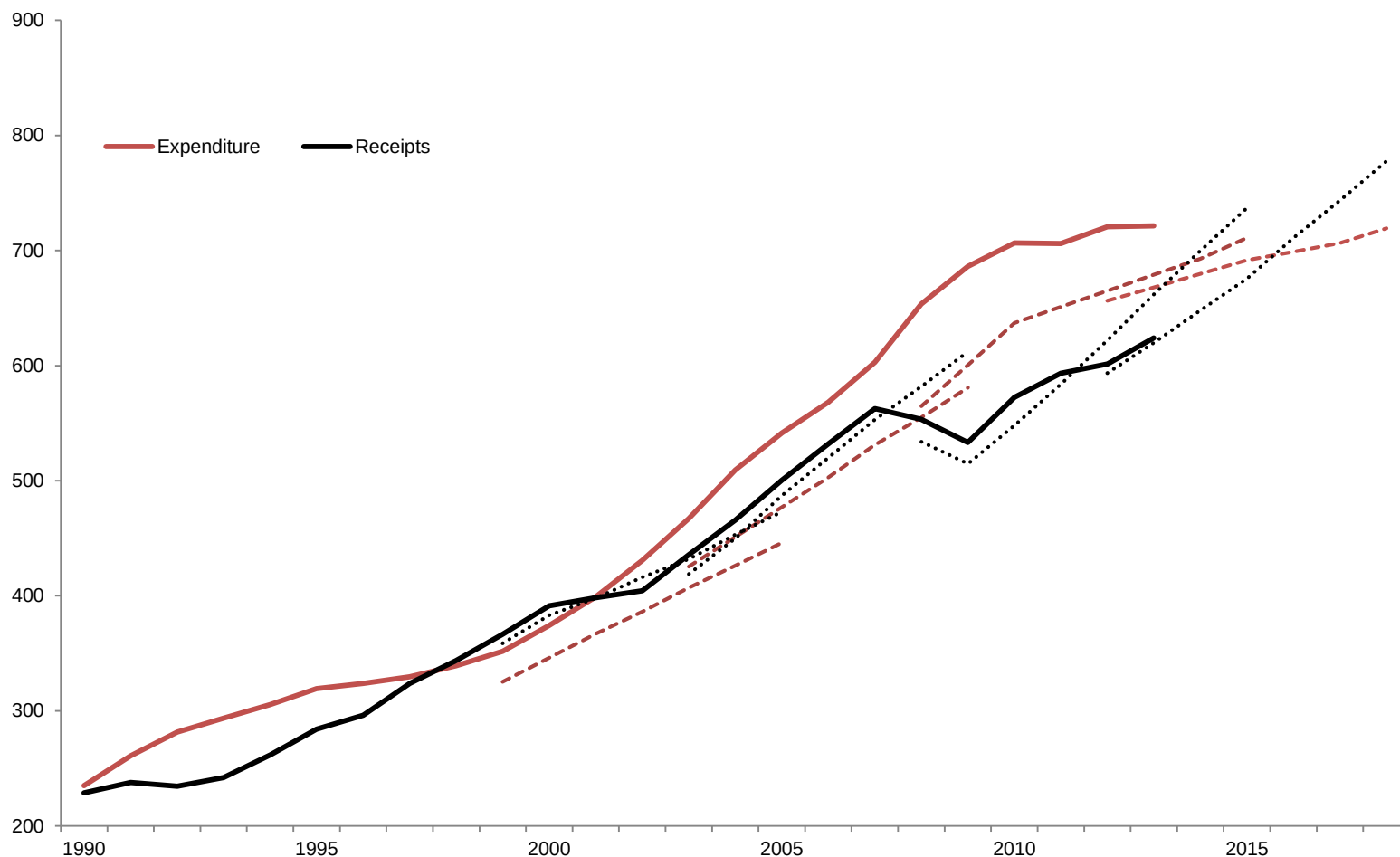
## Disaggregated Tax as % of Total Tax Take



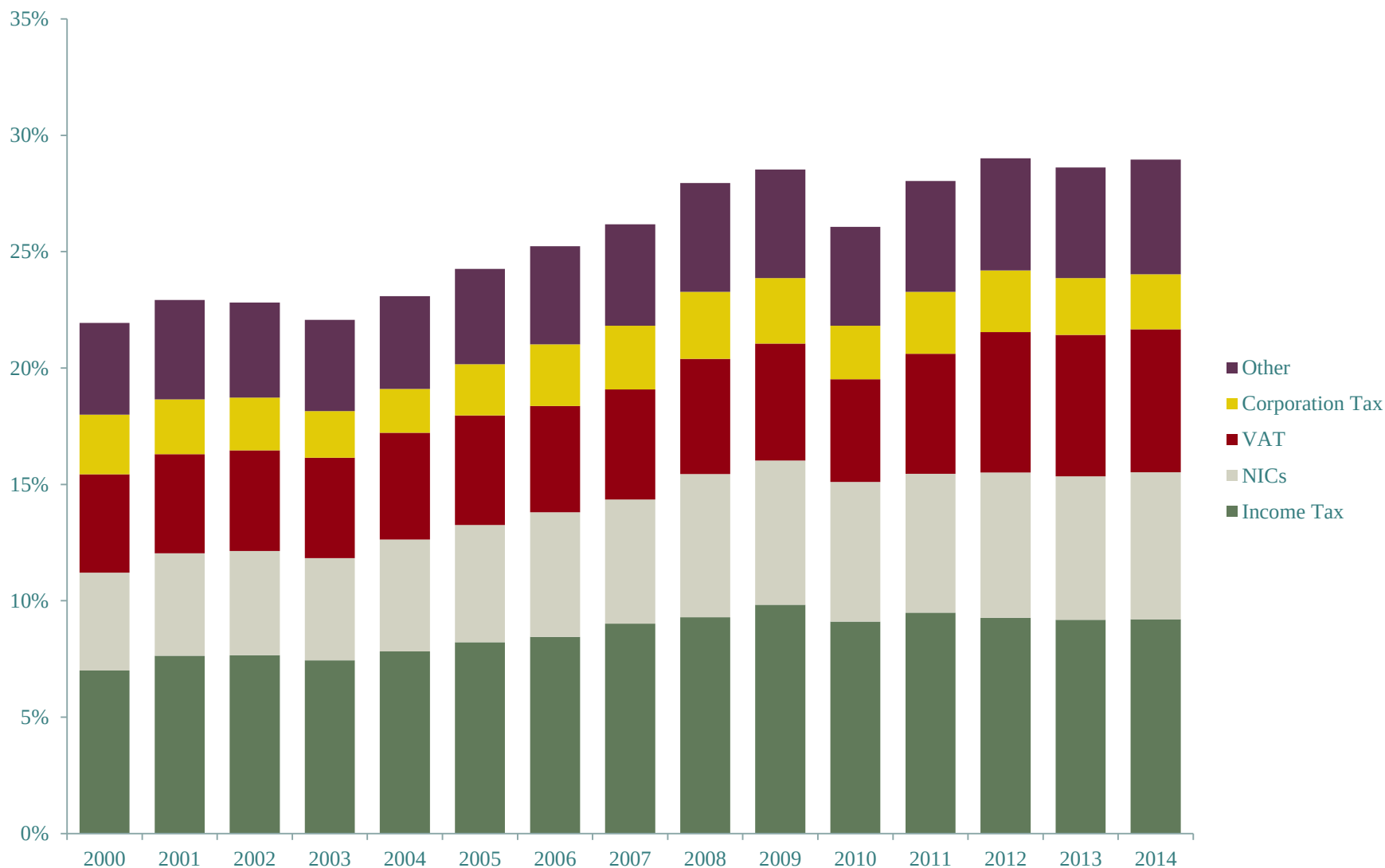
# Current Receipts vs Current Expenditures of 4 Budgets (Billions)



# UK Gov't Receipts and Expenditure

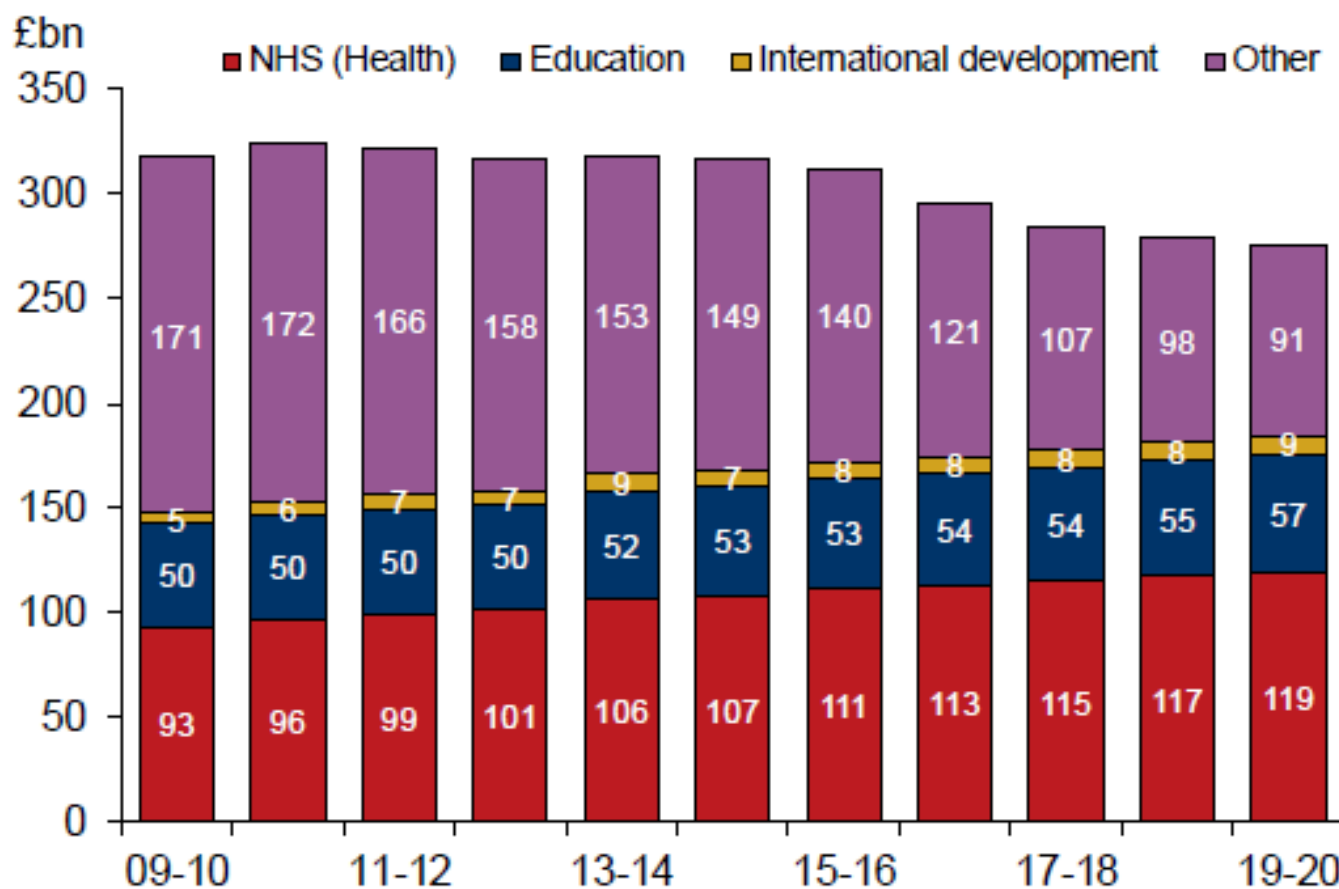


# Disaggregated Tax as a % of GDP



# UK Fiscal consolidation will raises questions over spending priorities.

## UK: Implied resource DEL



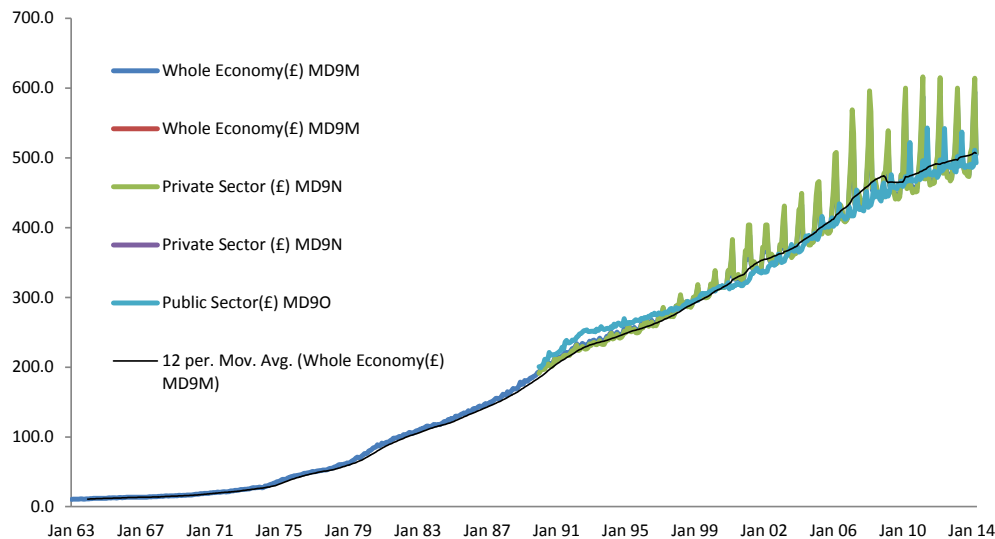


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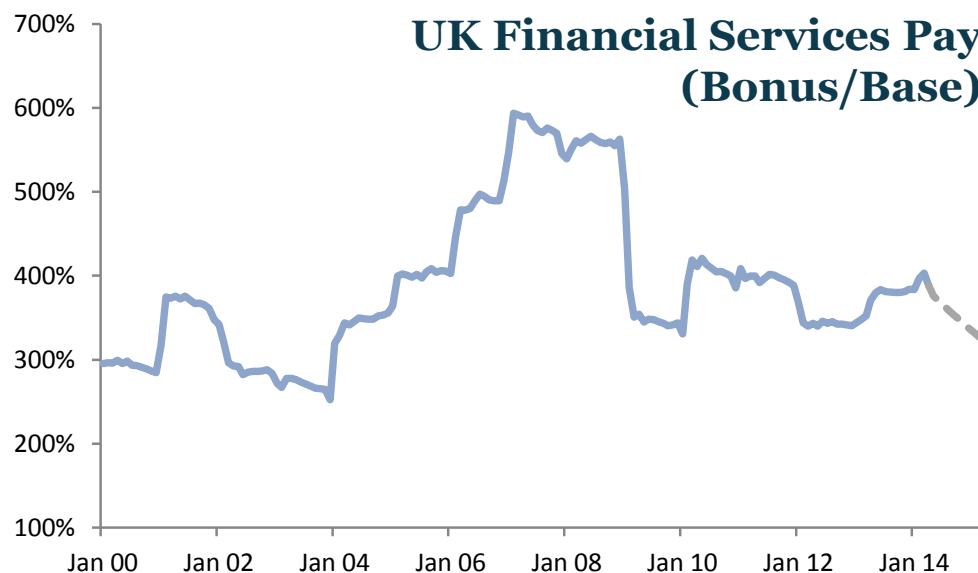
# UK Pay

- UK Pay increased by 8.8% p.a. in the 1980's, 2.4% p.a. in the 1990's, 4.1% in the 00's, and 2.4% p.a. since 2009
- Public sector pay lagged private sector pay in the 1980's and 1990's, but grew faster than private sector pay through the 00's.
- Pay in the private sector has over the past 20 years become more volatile as bonuses have become a more common form of compensation, most notably in financial services
- Bonus levels within UK Financial services have fallen from high of 6x base pay in 2008 to 3.8x in 2014. Further falls can be expected as EU bonus cap shifts pay from bonuses to base pay

## UK Compensation



## UK Financial Services Pay (Bonus/Base)

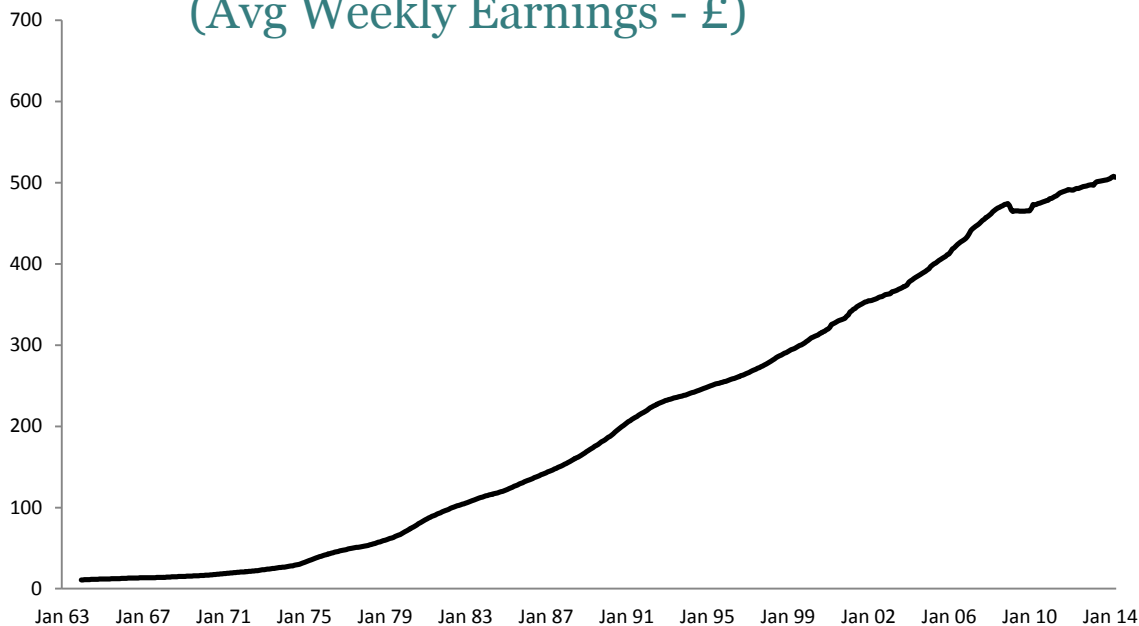




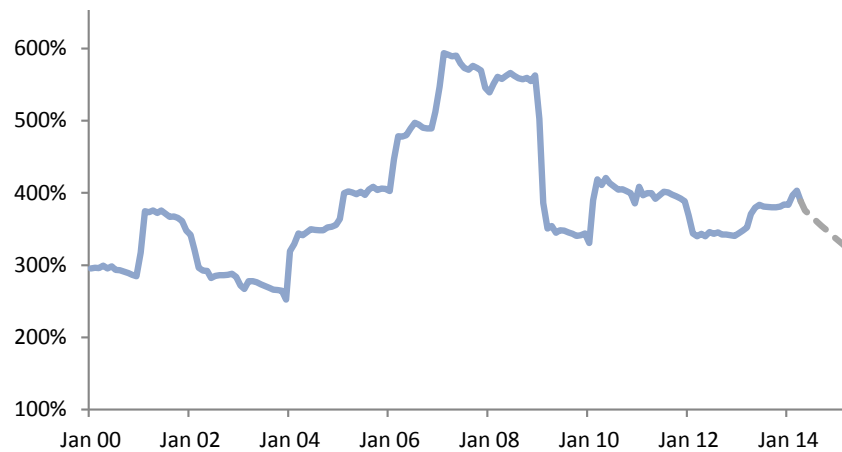
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# UK Pay

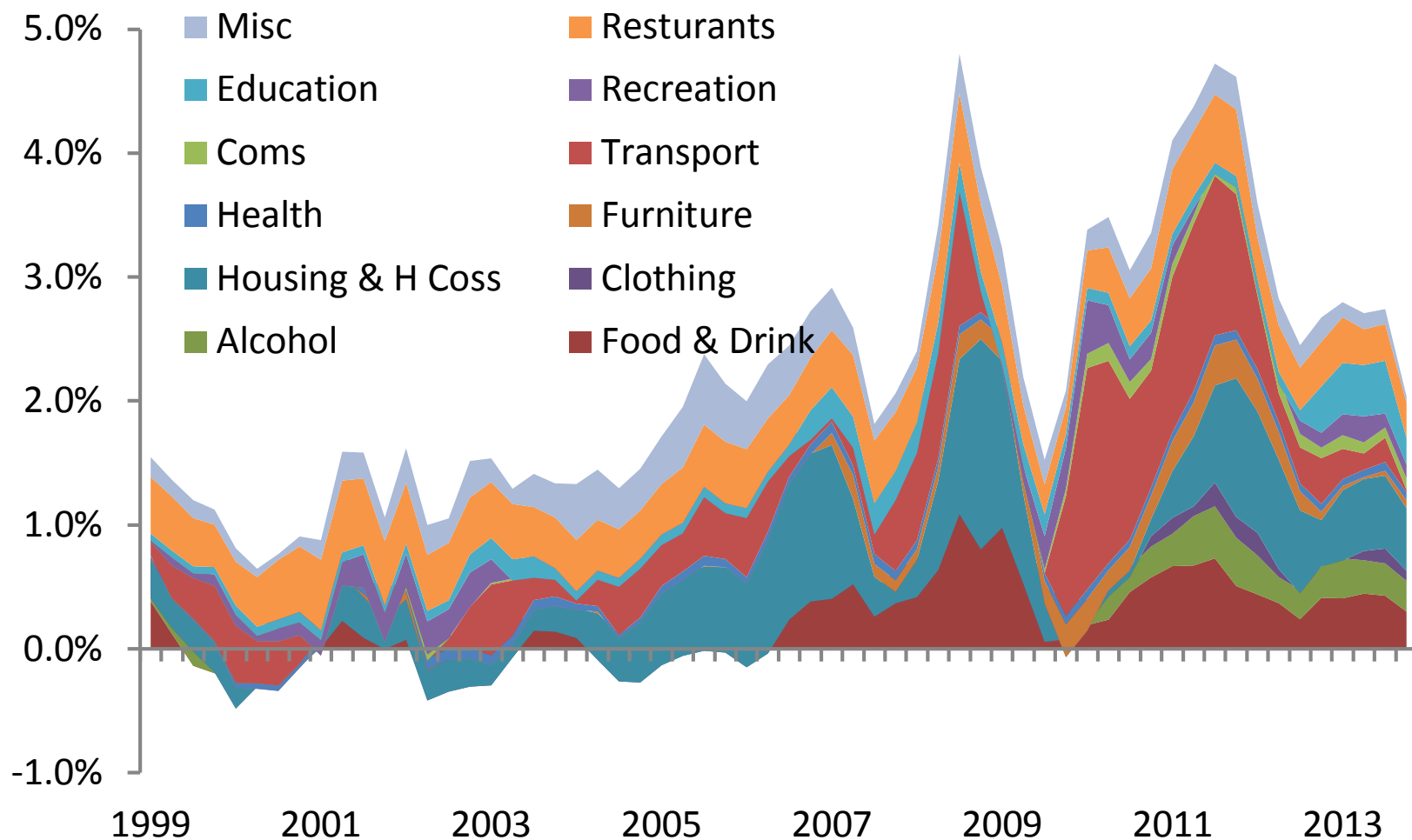
## UK Compensation (Avg Weekly Earnings - £)



## UK Fin Services Pay (Bonus/Base)



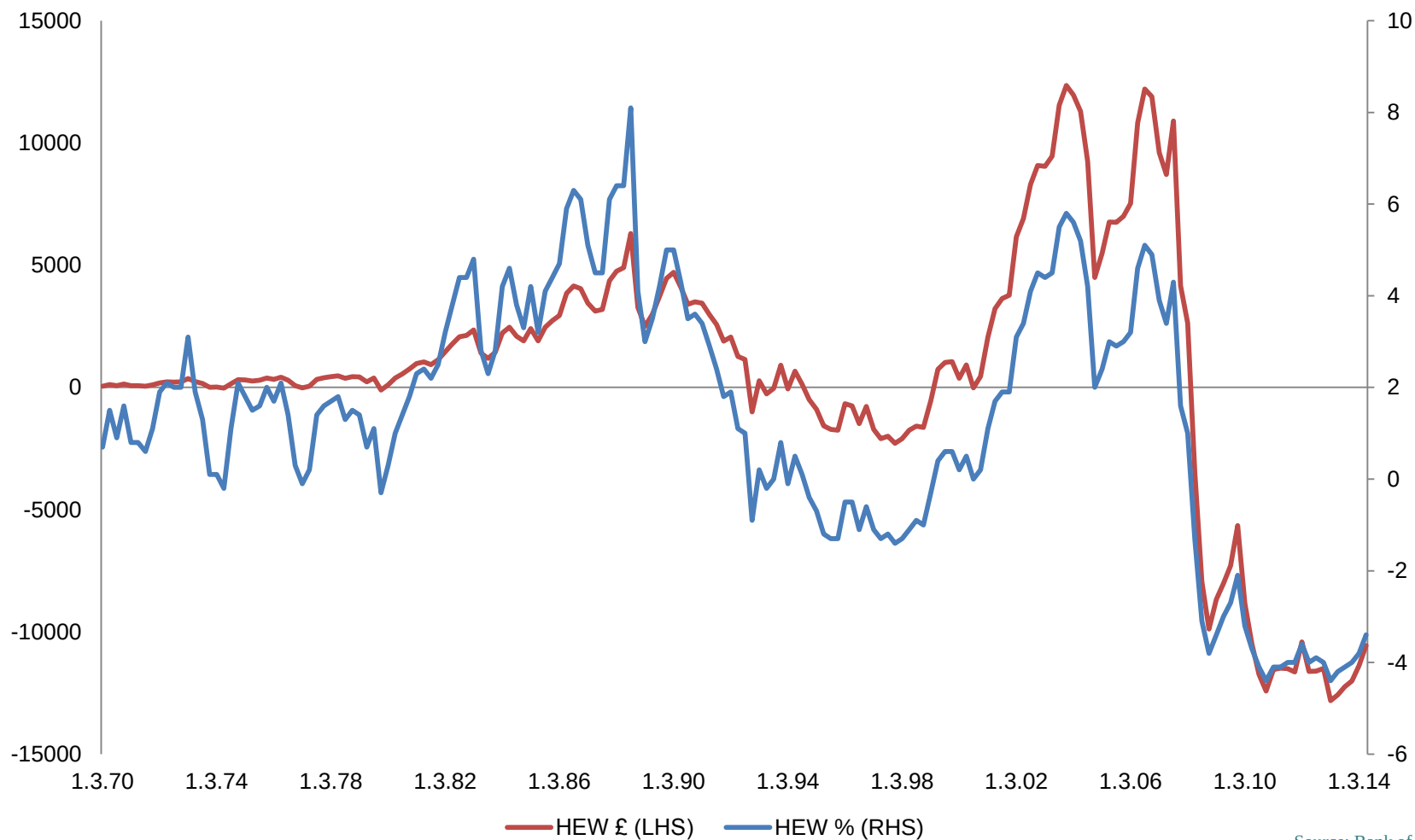
Source: ONS & IoD Policy Unit





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# UK Housing Equity Withdrawal

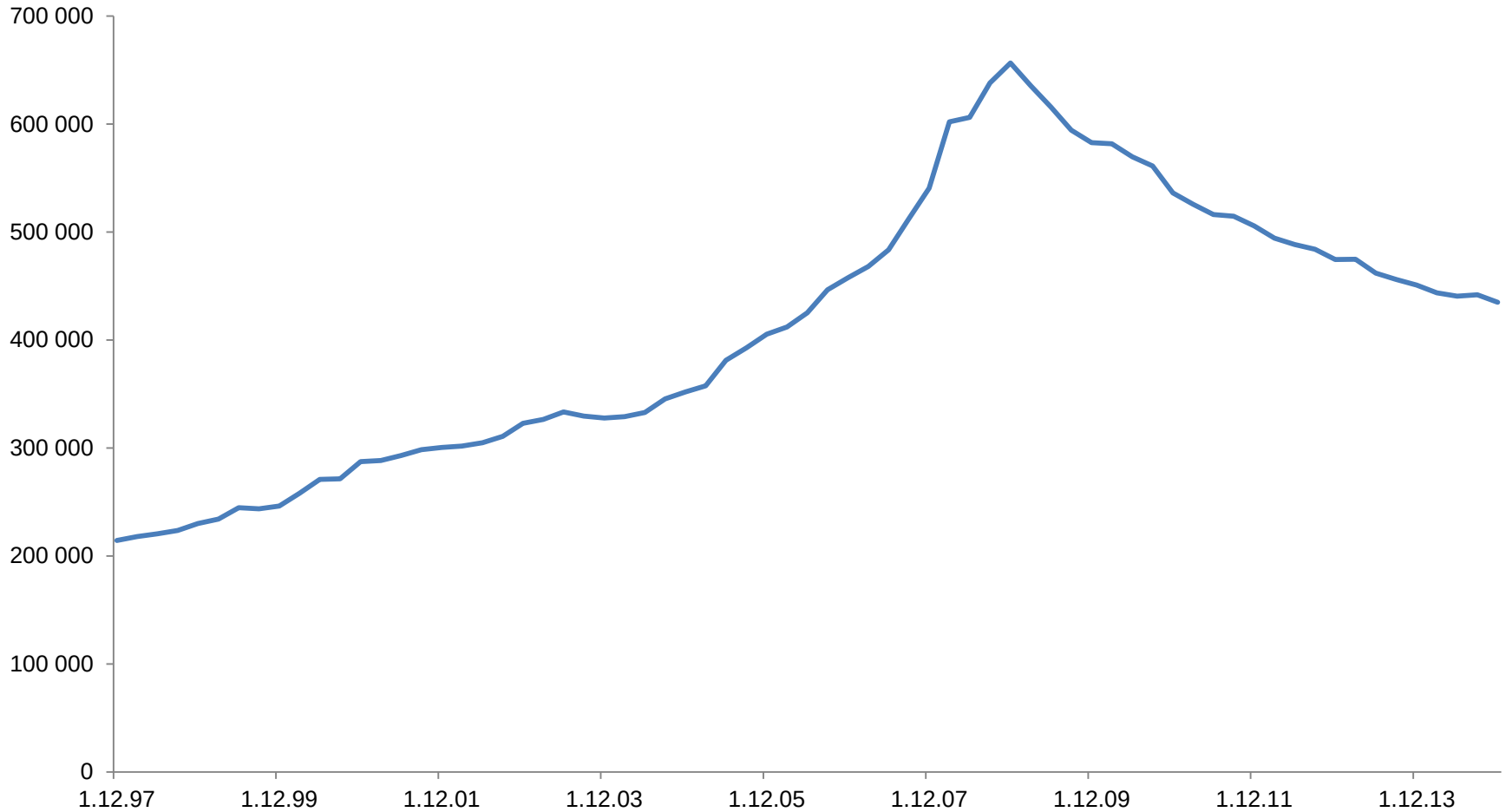


Source: Bank of England



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# Total Corporate Debt

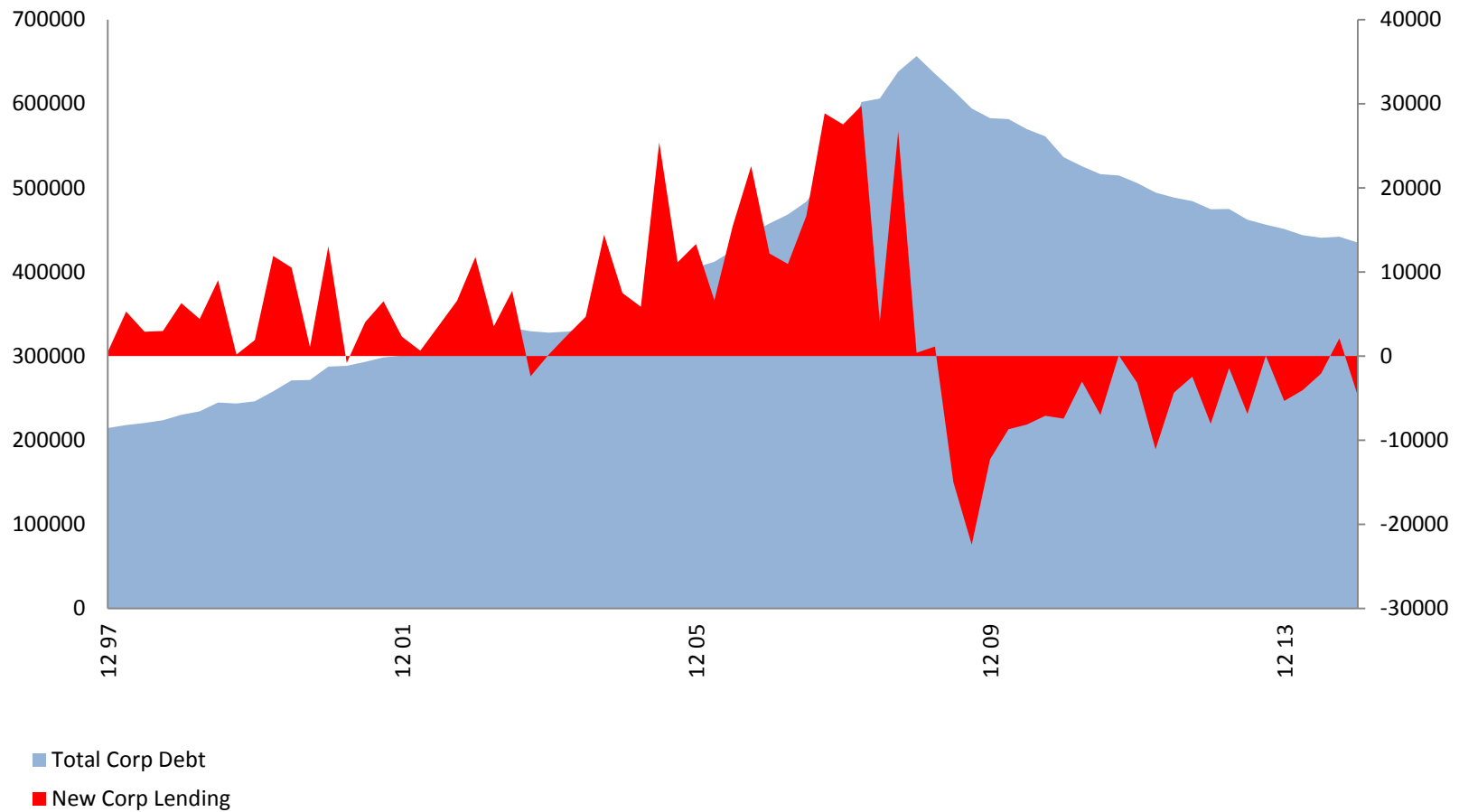


Source: Bank of England



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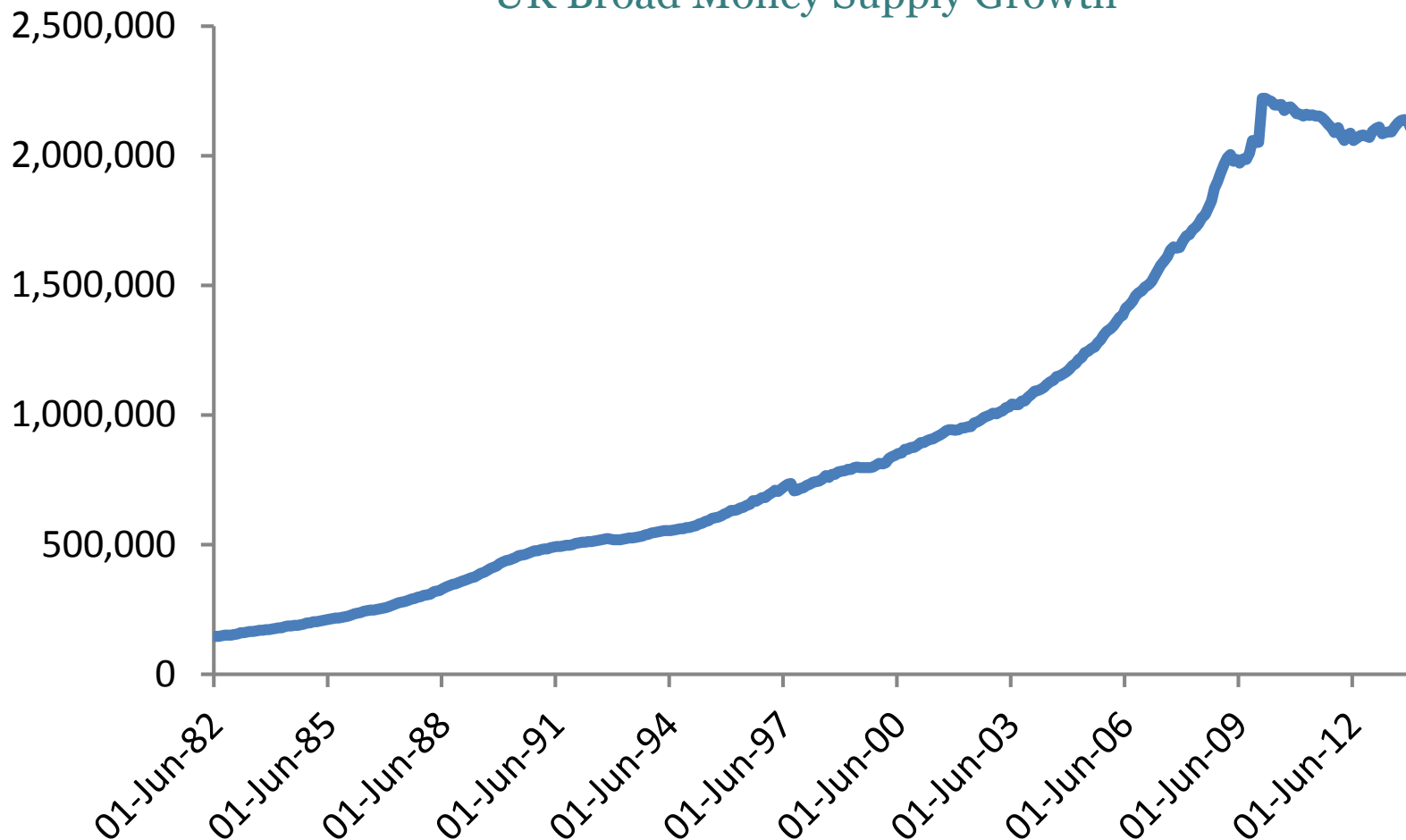
# New Corporate Debt and Lending



Source: Bank of England

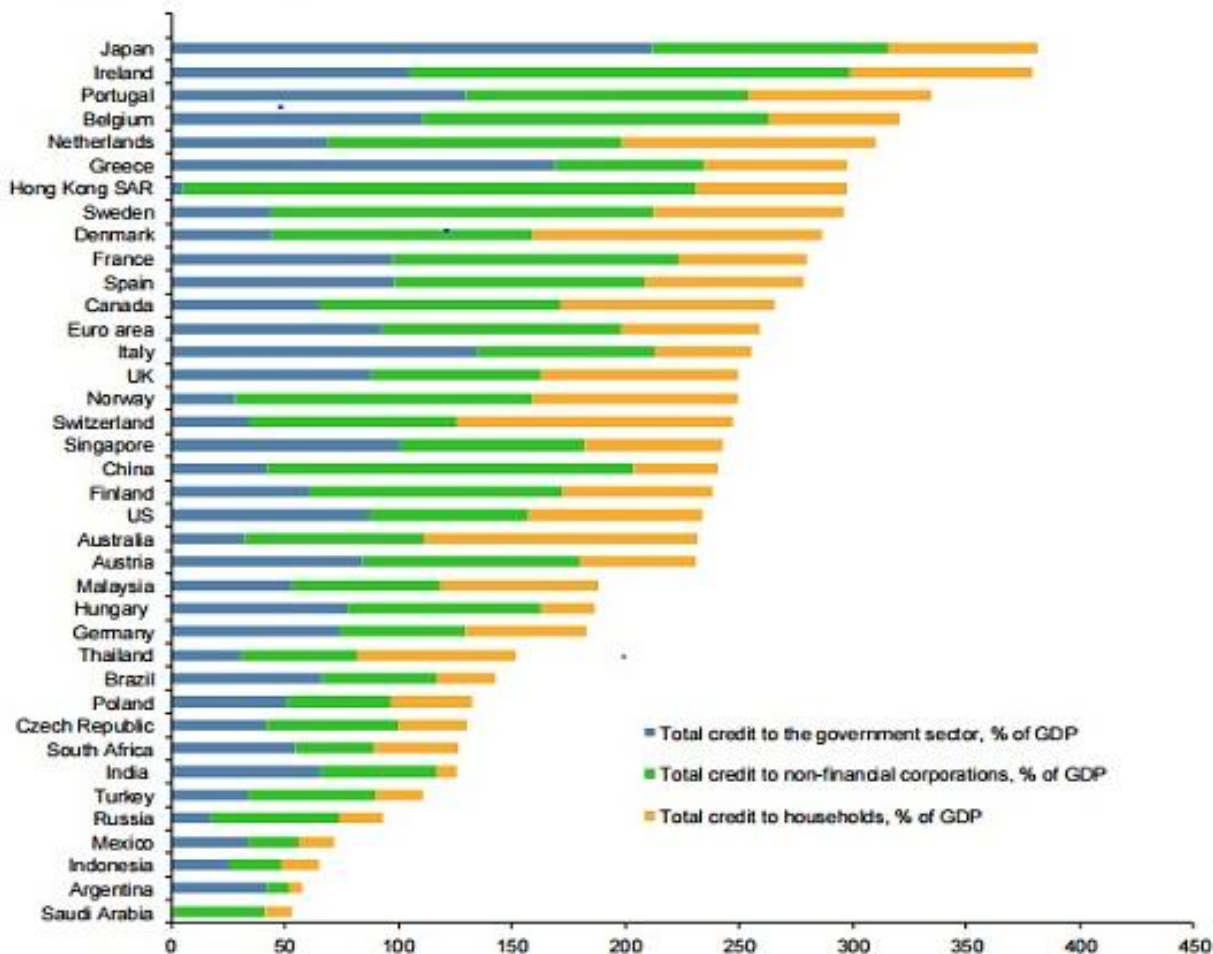
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## UK Broad Money Supply Growth



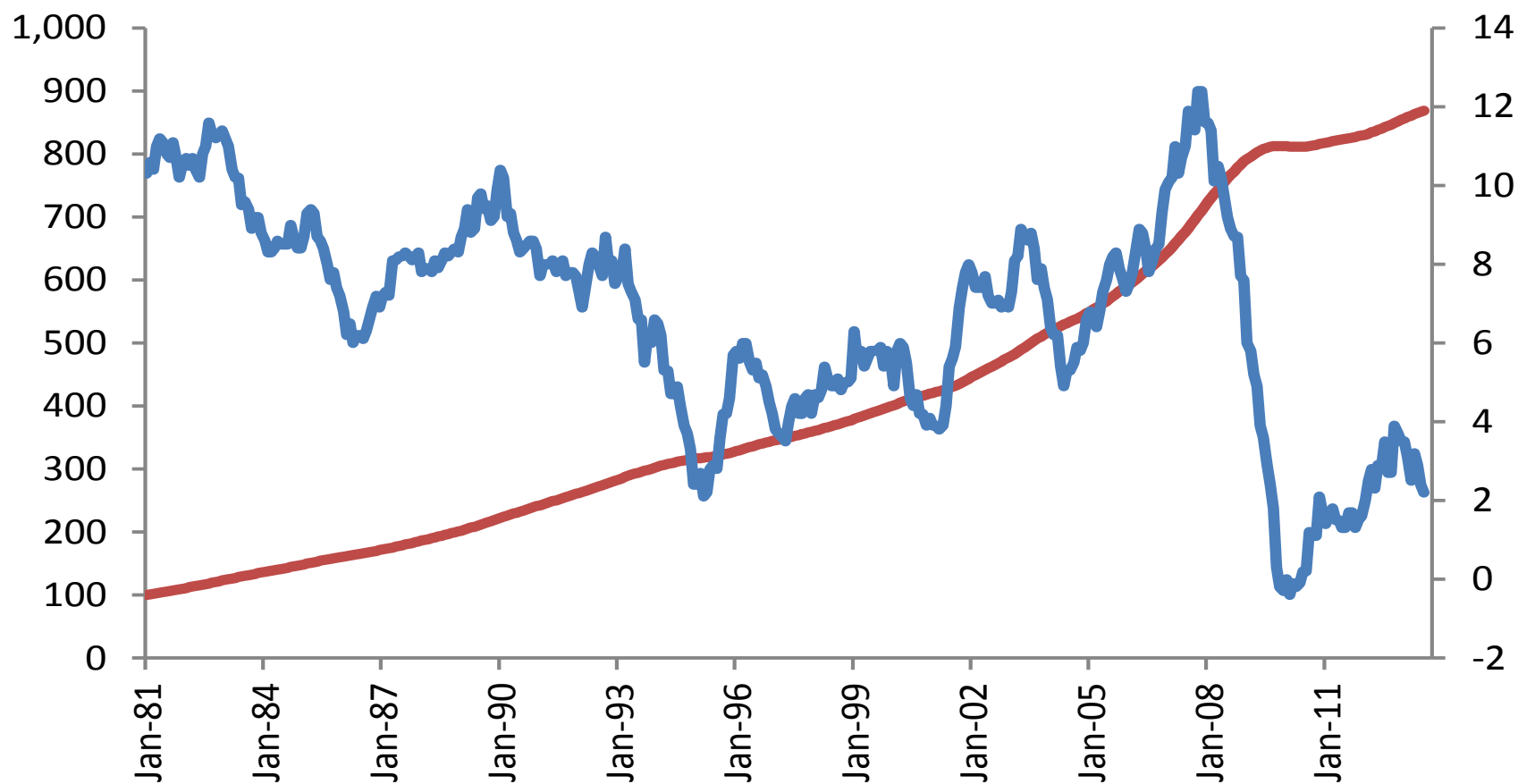
# Global Economics – Credit

The big, overriding balance sheet theme. Too much DEBT. China is too high on this chart for a developing economy



Source: RBS; BIS data as of Q1 2015

## Broad Money Supply Growth



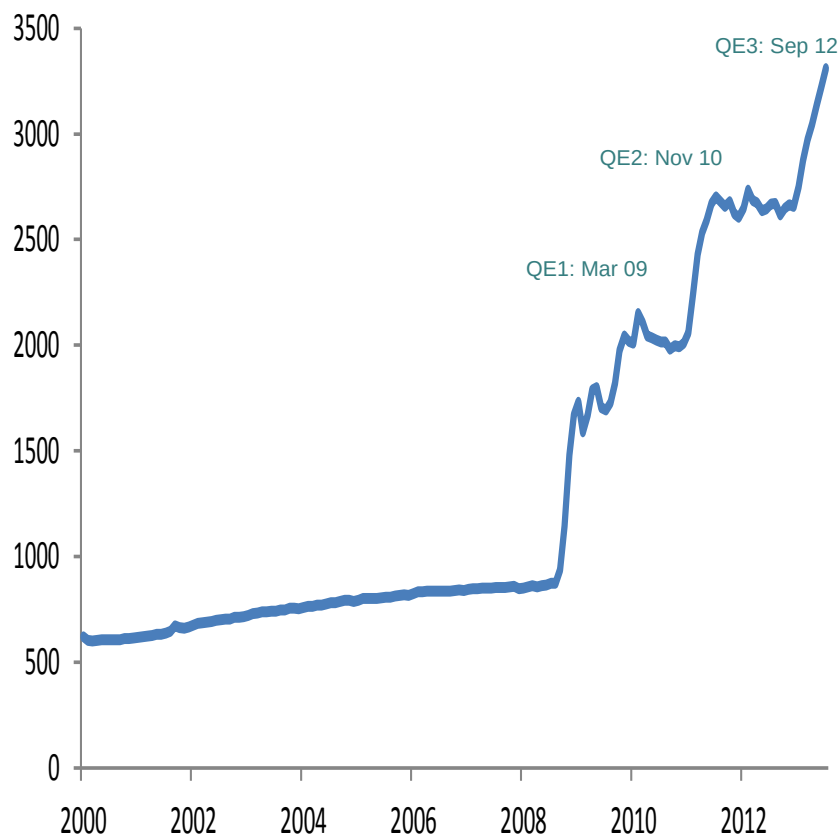
Source: ECB, Bloomberg, IoD Policy Unit



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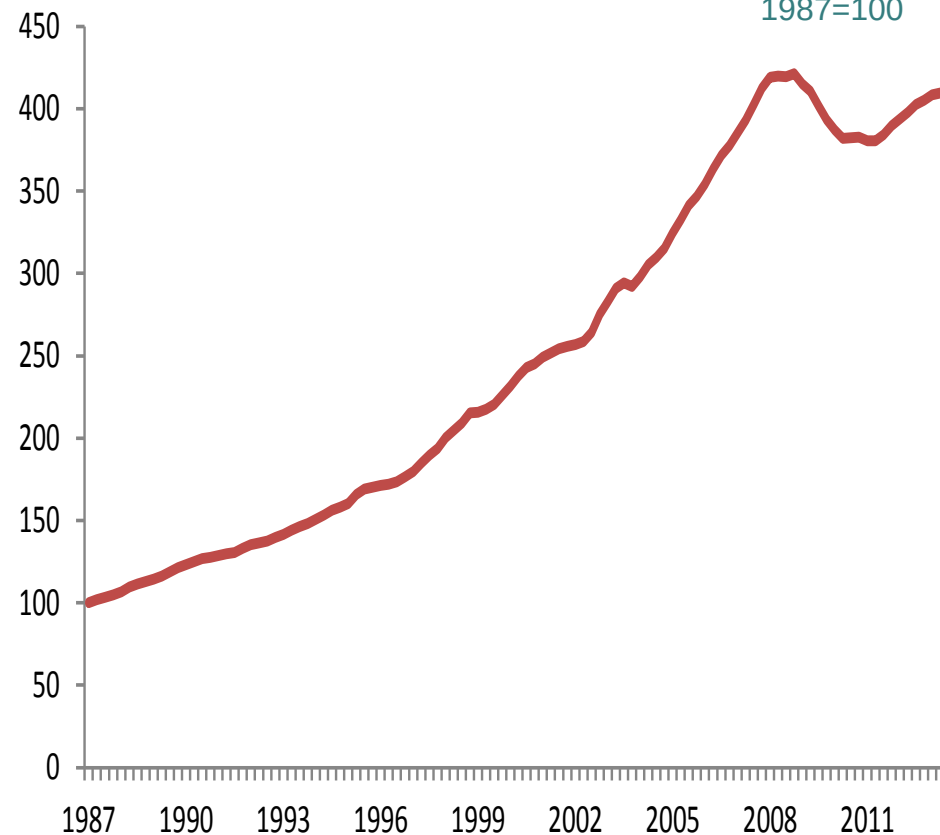
# US Economics – Credit

## Broad US Money Supply Growth



## US Bank Credit

1987=100

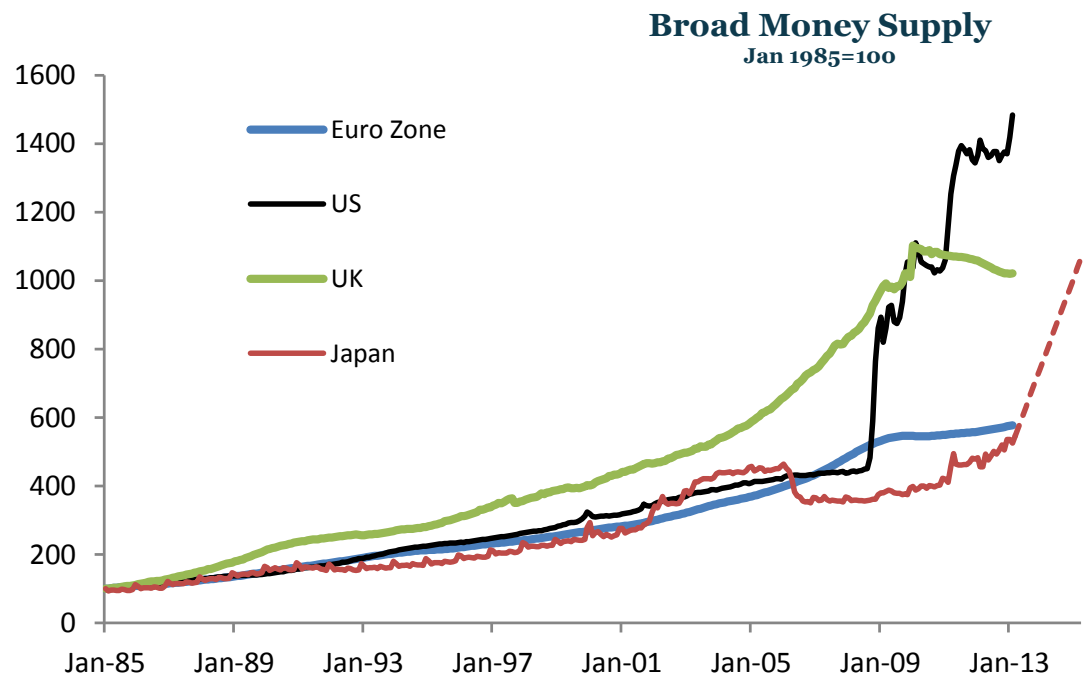


Source: St Louis Fed, IoD Policy Unit

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# Monetary expansion

- US and UK have been running highly expansionary money expansions since the start of the credit crisis
- US and UK Quantitative Easing well established, while EU has initiated new program
- Bank of Japan has program to double the money supply by 2016
- European Union data excludes €1.1 trillion Long Term Refinancing Operations
- Inflation = Money Supply X Velocity of money. So far consumer remains sufficiently battered to not drive up monetary velocity, speed of any consumer recovery remains a major unknown



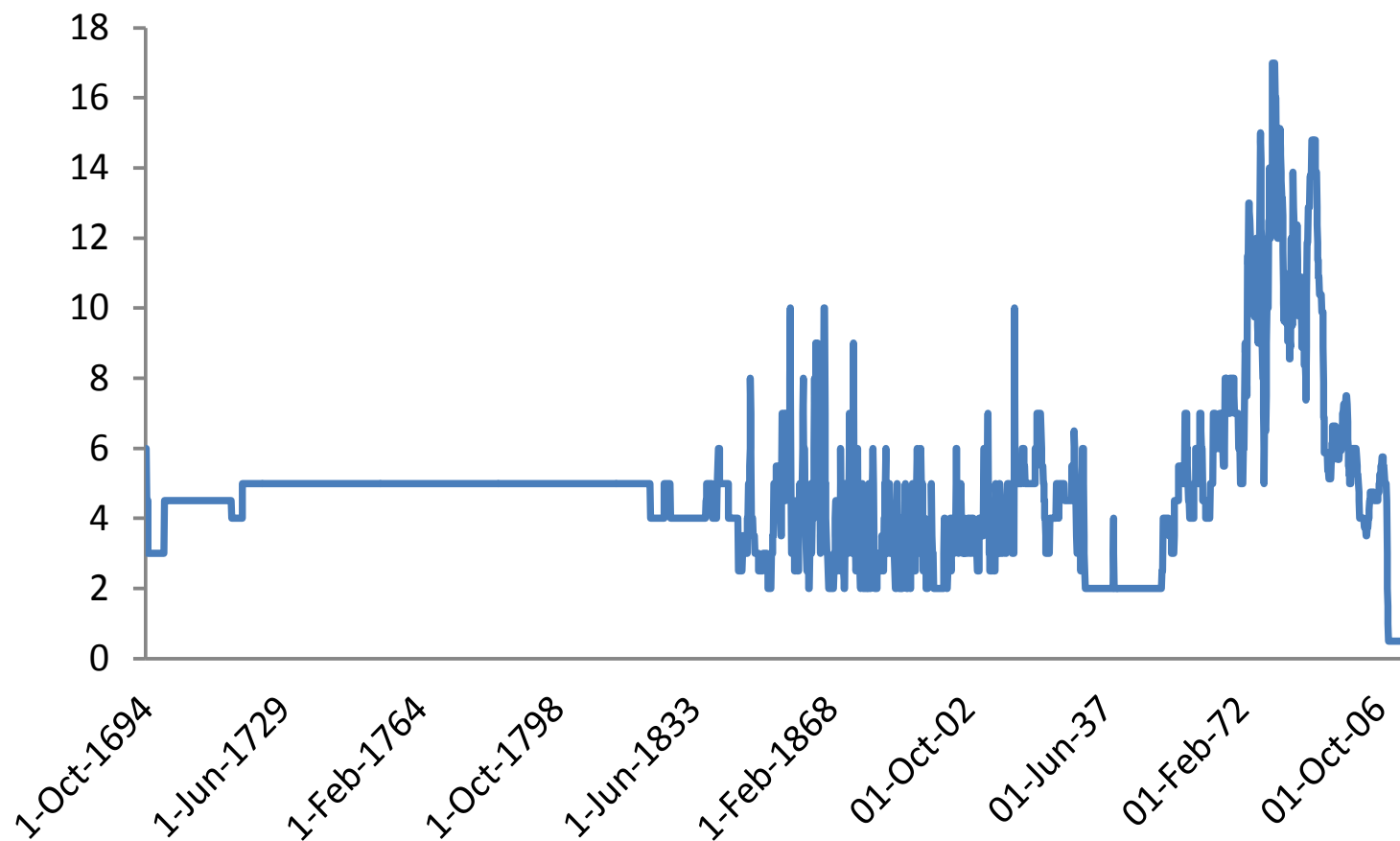
Source: ECB, BoE, Fed Reserve, BoJ



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# UK Interest rates

UK Bank of England Base Rates



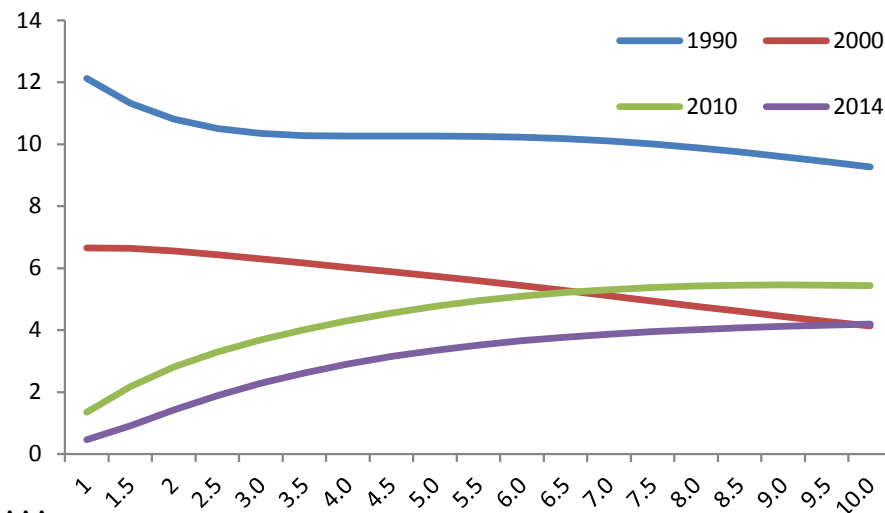
Source: BoE

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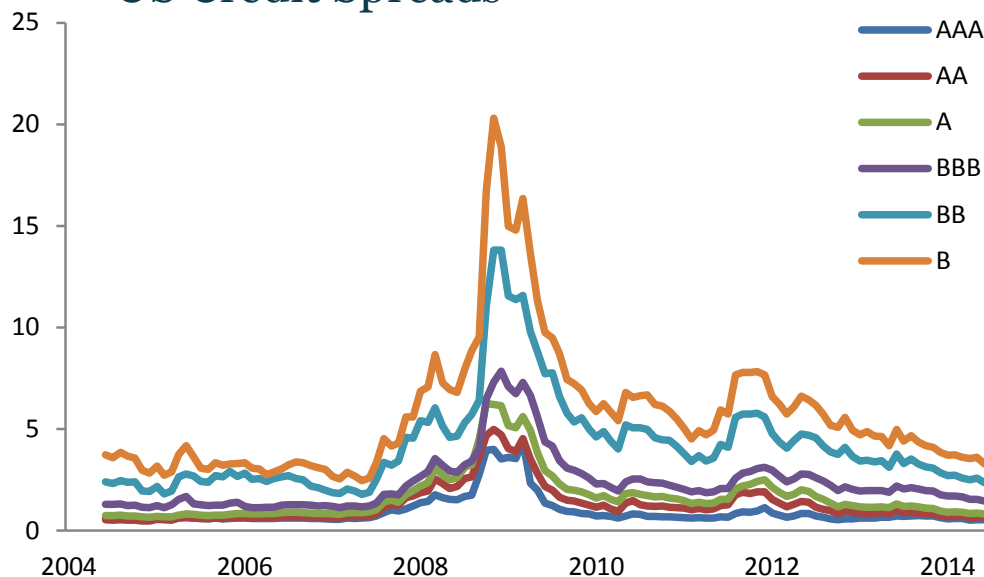
# UK Interest rates – cont

- Long term time value of money varies with inflationary expectations
- Bank of England sets overnight rate, markets determine shape of the curve from that point

## UK 10 Y Gilt Curve

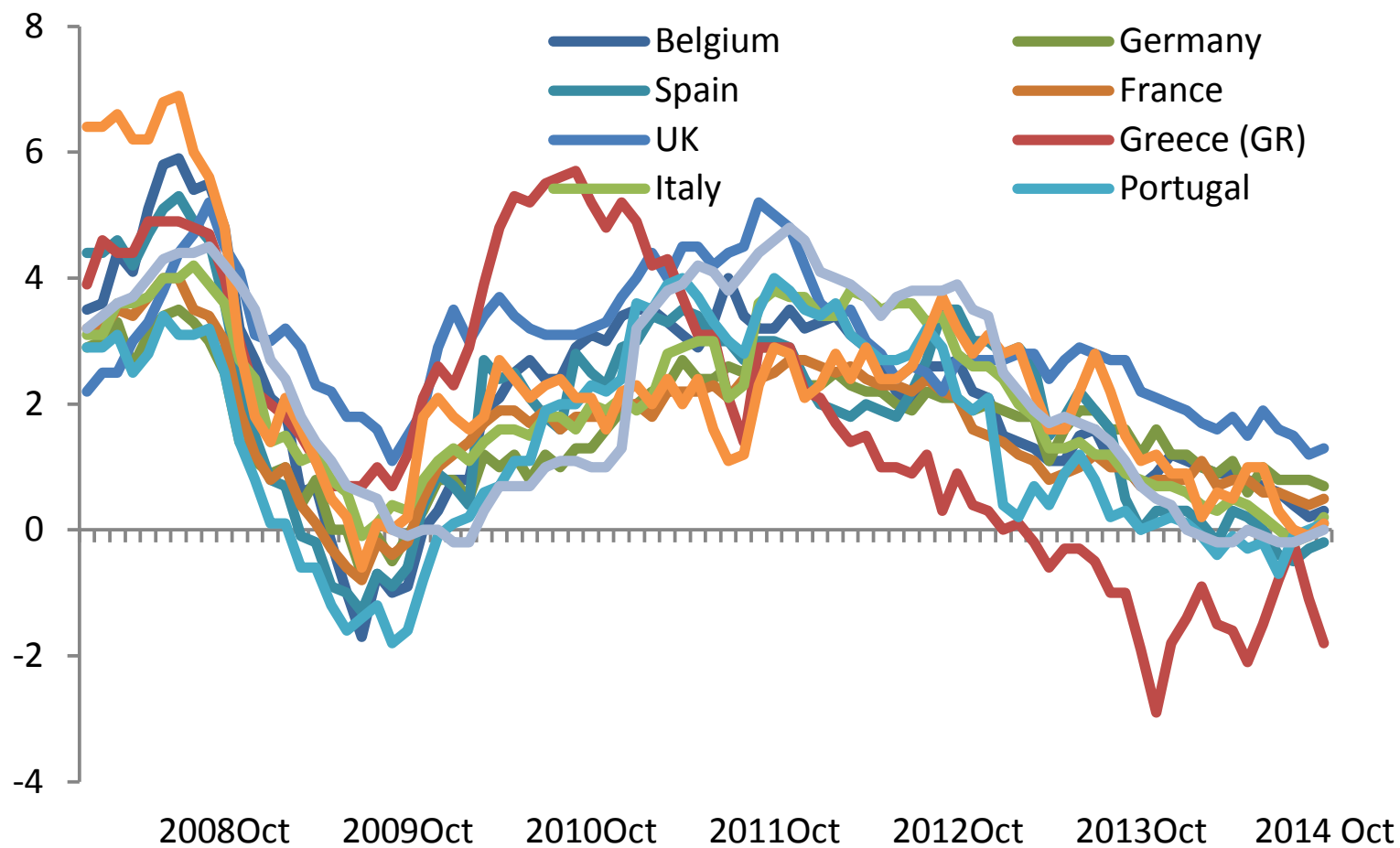


## US Credit Spreads



- Corporate borrowing is at a (highly variable) premium above base rates.
- Spreads move in response to market sentiment and investors outlook

# EU Deflation



# Easing the Debt Burden

## Grow out of difficulty

- The ideal scenario, but difficult to conjure at will
- UK long term GDP growth rate is falling to ~1%

## Inflate away problem

- Can work, but markets will penalise inflationary prone borrowers
- Ideally deny inflation while it erodes debt capital

## Default

- Dramatic effect on ability to raise capital in future
- Only effective if large stock of debt is held by foreigners

## Sell Assets

- Privatisations to raise capital are less successful than those driven by desire to liberalise economy

## Impact upon Businesses

- Significant debt burden can be a disincentive to work and investment across economy and society
- Higher interest rates have significant impact on credit spreads and business investment
- Global financial markets remain key to UK prosperity
- Key to long term solution is to address underlying causes of deficit and debt

# Whither Globalisation?

## Factors that suggest that globalisation will continue:

- More countries are attaining middle-income status and increased productivity
- The internet makes it easier to trade across borders and also more people are learning the global language, English
- Social and commercial networks are increasingly global rather than local or national
- Trade in natural resources is rising given the materials-intensive nature of most emerging economies

## Factors suggesting that globalisation has peaked :

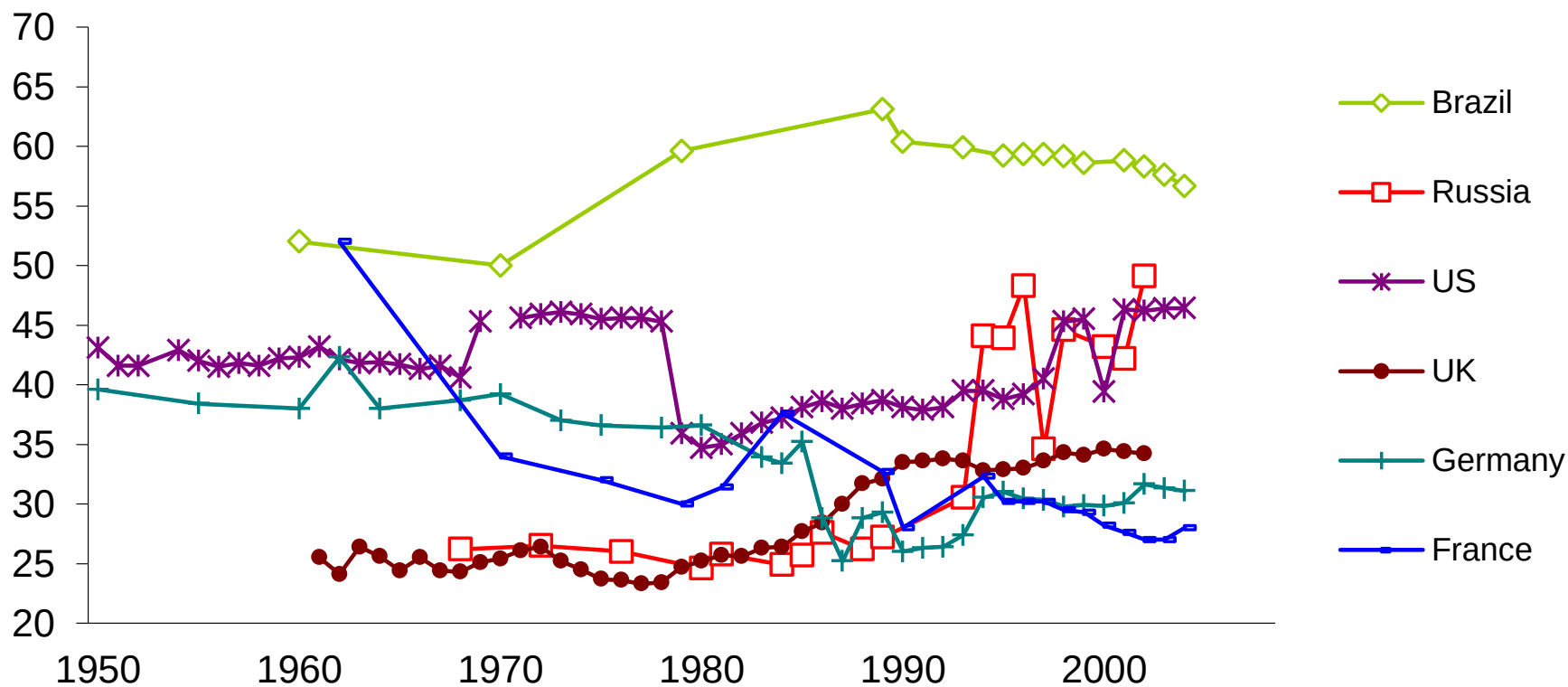
- Services drive GDP, but they are harder to trade
- China's economy will become less resource-intensive. More generally, the rise of China will not continue at its previous pace
- There has been a lot of wage equalization across borders, and that limits future gains from additional cross-border trade
- Robots and smart software lower the returns of investing in and trading with lower-wage nations
- The next 20 years may not be as peaceful as the past 20 years.

## INCOME *EQUALITY* FOR DUMMIES



Mike Lester  
Washington Post Writers Group  
1-7-14

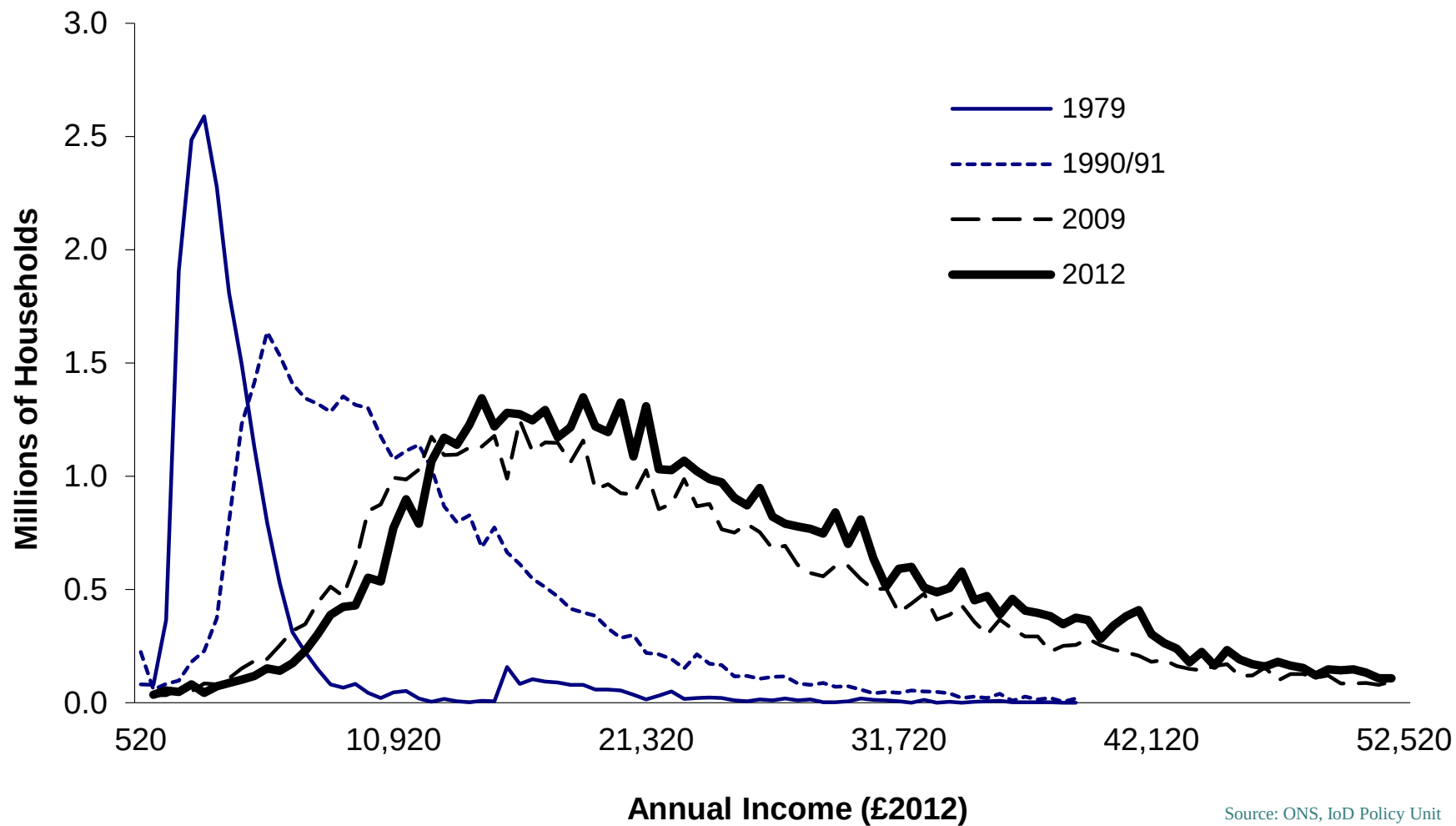
# Global Gini coefficients





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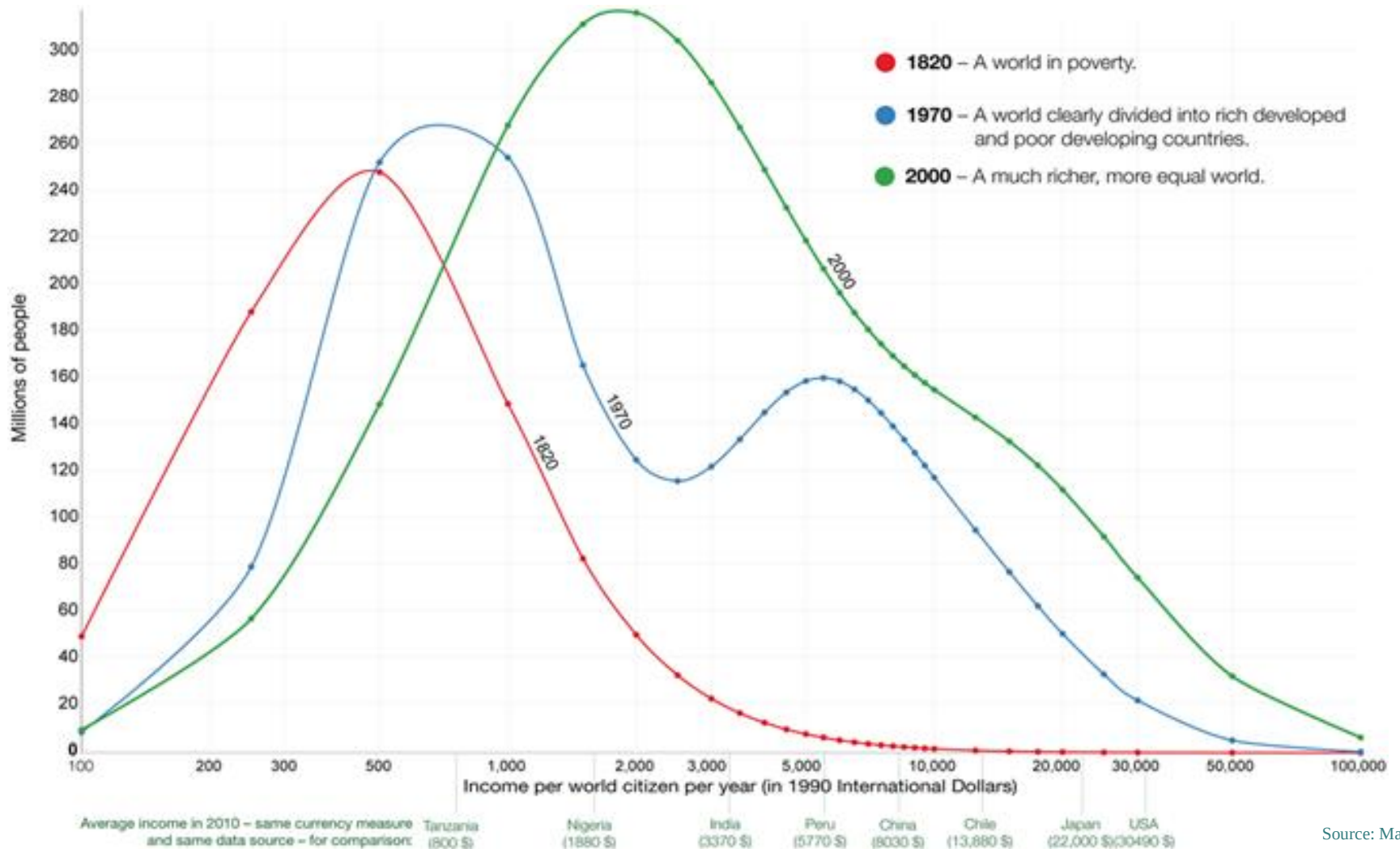
# UK Income Dispersion



Source: ONS, IoD Policy Unit

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# Global Income Distribution



Source: Max Roser



# Developed economies remain under significant pressure

## Macro Economic Pressure

- Recovery progressing, but dangerous disruptions still loom
- Tax yields have peaked
- Monetary policy remains emasculated

## Political Pressure

- Tactical populism tempts
- Change and a re-ordering of priorities will be resisted
- Politicians face trust issues

## Consumer Pressure

- Consumers show little or no loyalty
- More product for less money is now the expected normal
- Many businesses face consumer trust issue

## New Technology Pressure

- New technologies allow for lower cost production and distribution
- Analytics necessary to remain relevant
- Market commoditising in face of need to invest to compete

## Future Trends

- Premium on Agility
- Business will lead politics
- Technology needs fertile ground to flourish



# Stages of Economic Development

GDP/Head of ~\$7500

## Intellectual Development

- Local value added goods and services are brought to market
- Tech development in domestic market
- Fading dependence on FDI, domestic demand is increasingly sophisticated

GDP/Head of ~\$2500

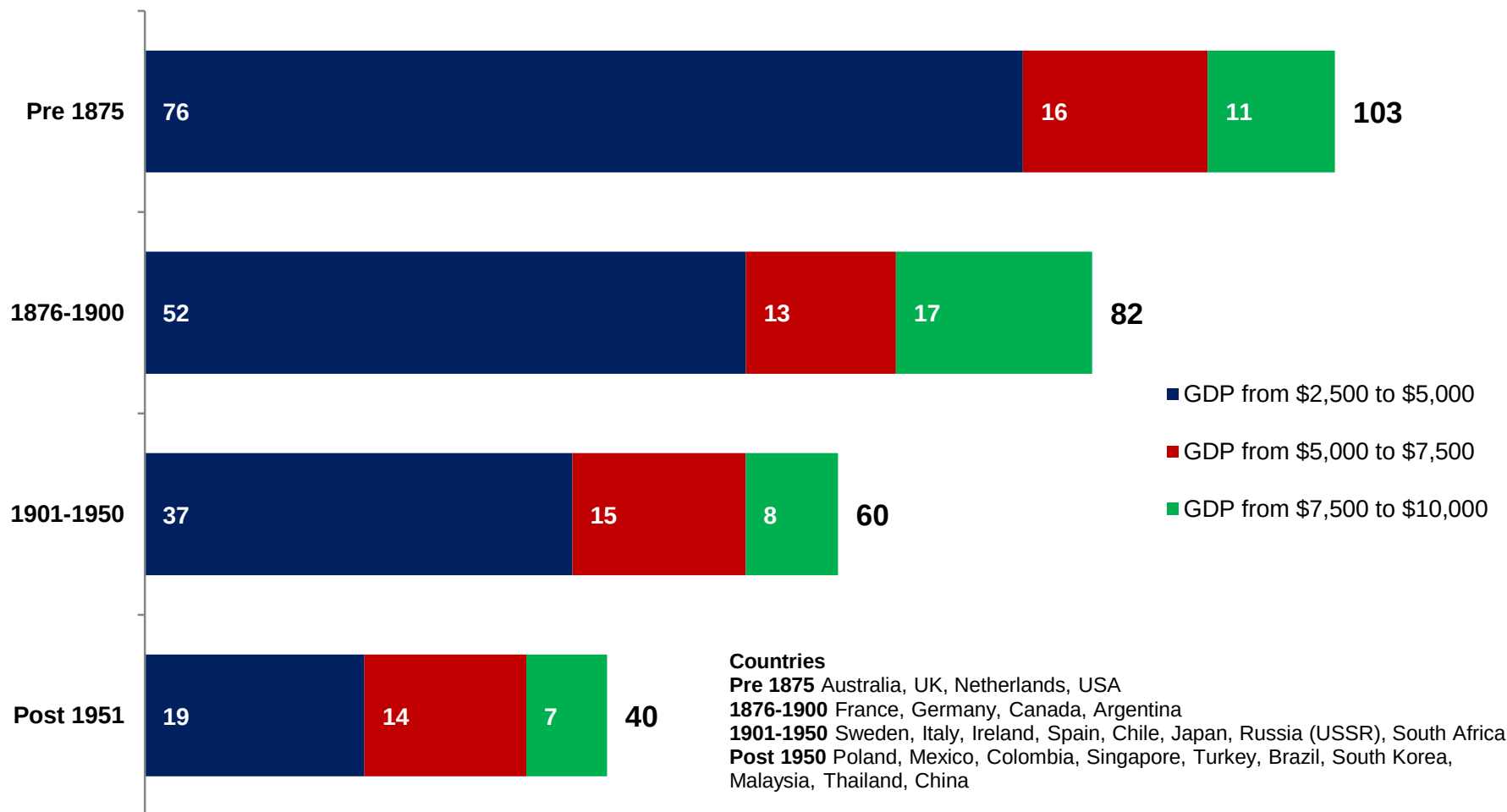
## Secure Property Rights

- Politicians are brought fully under the law
- Secure property rights allow for development of domestic business base
- Basic components & services supplied locally

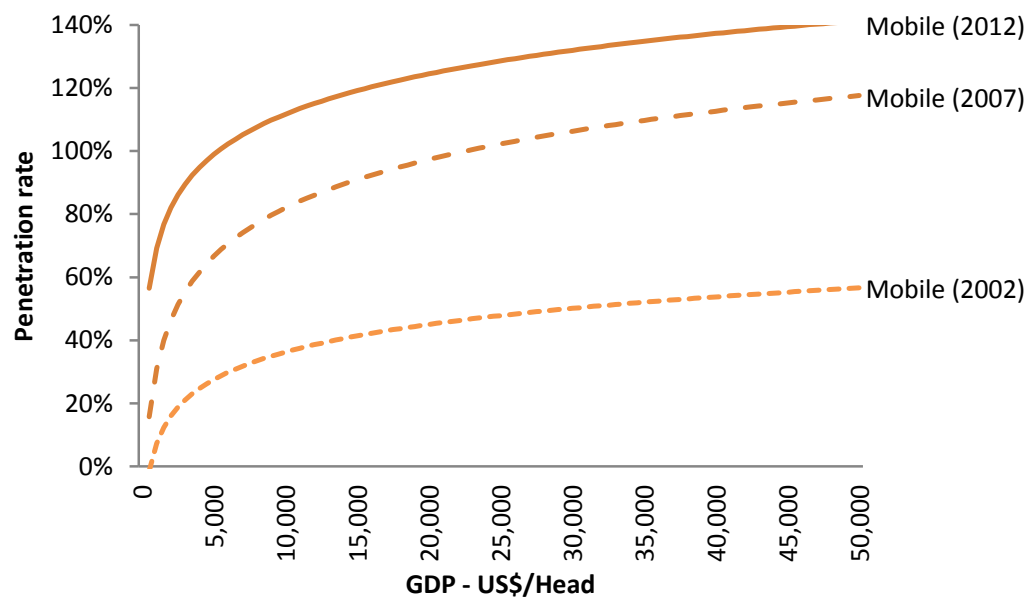
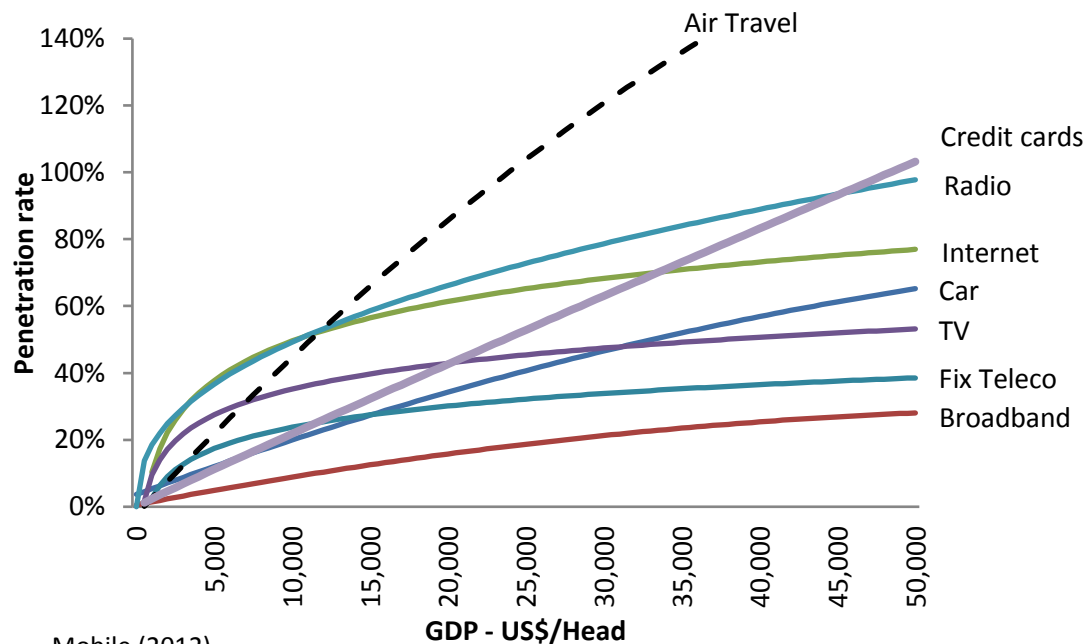
## Low Cost Labour

- Business friendly government encourages Multi National Corp (MNC) investment
- MNC's seeks to lower costs of commoditised products and services
- Intellectual capital transfer is low
- MNC's can cope with uncertainty/SME can not

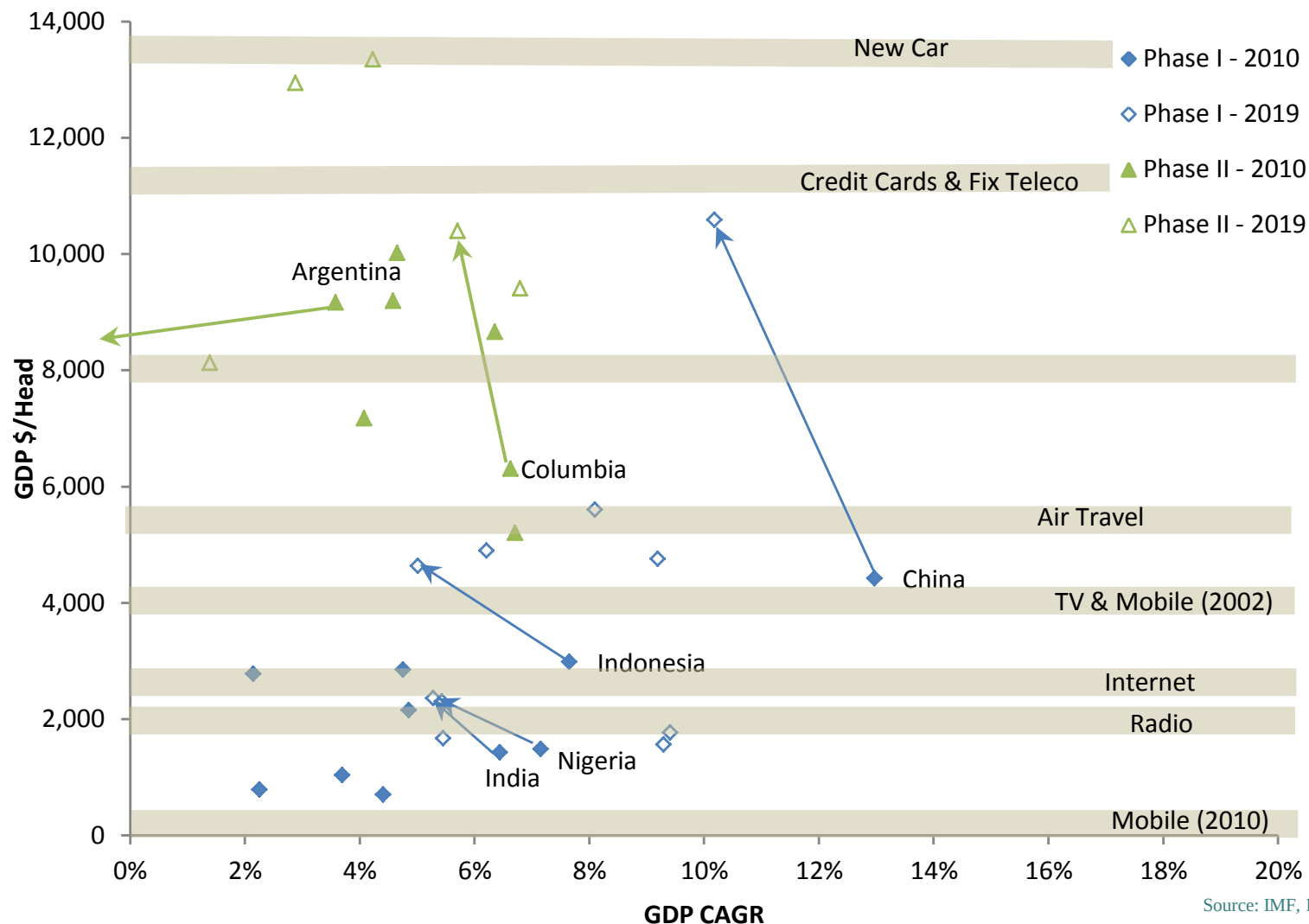
# Time to Increase GDP



# Thresholds of Demand



# Development and Thresholds of Demand



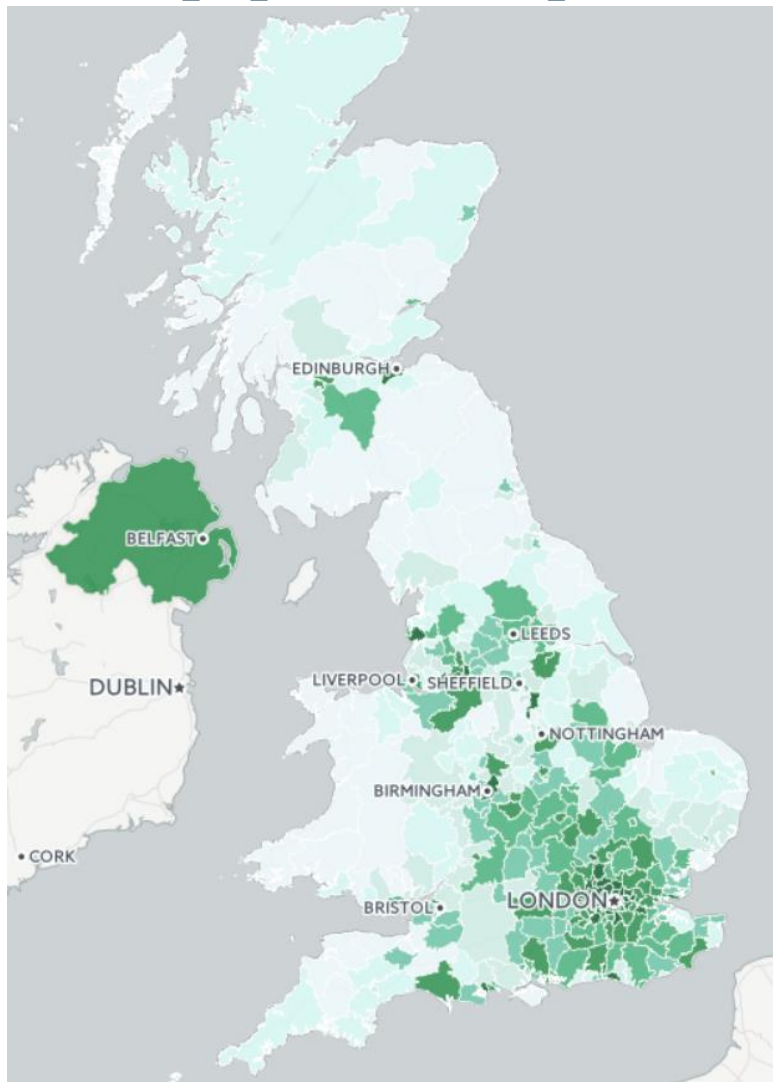


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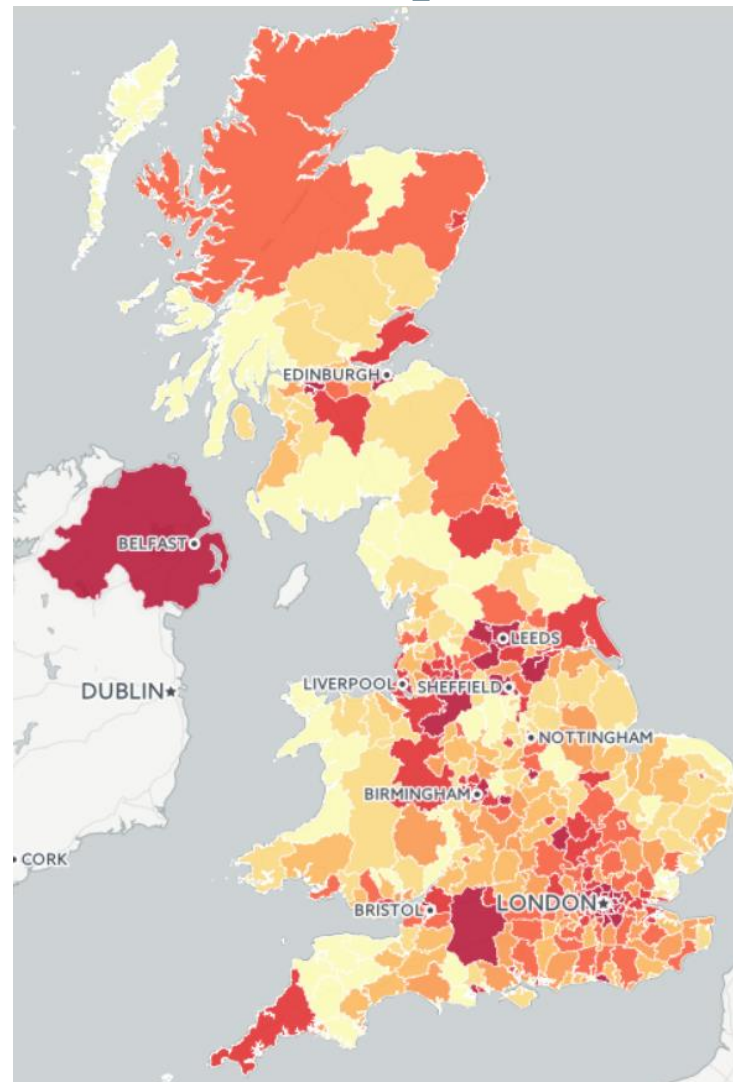
# The New Economy

# The New Economy

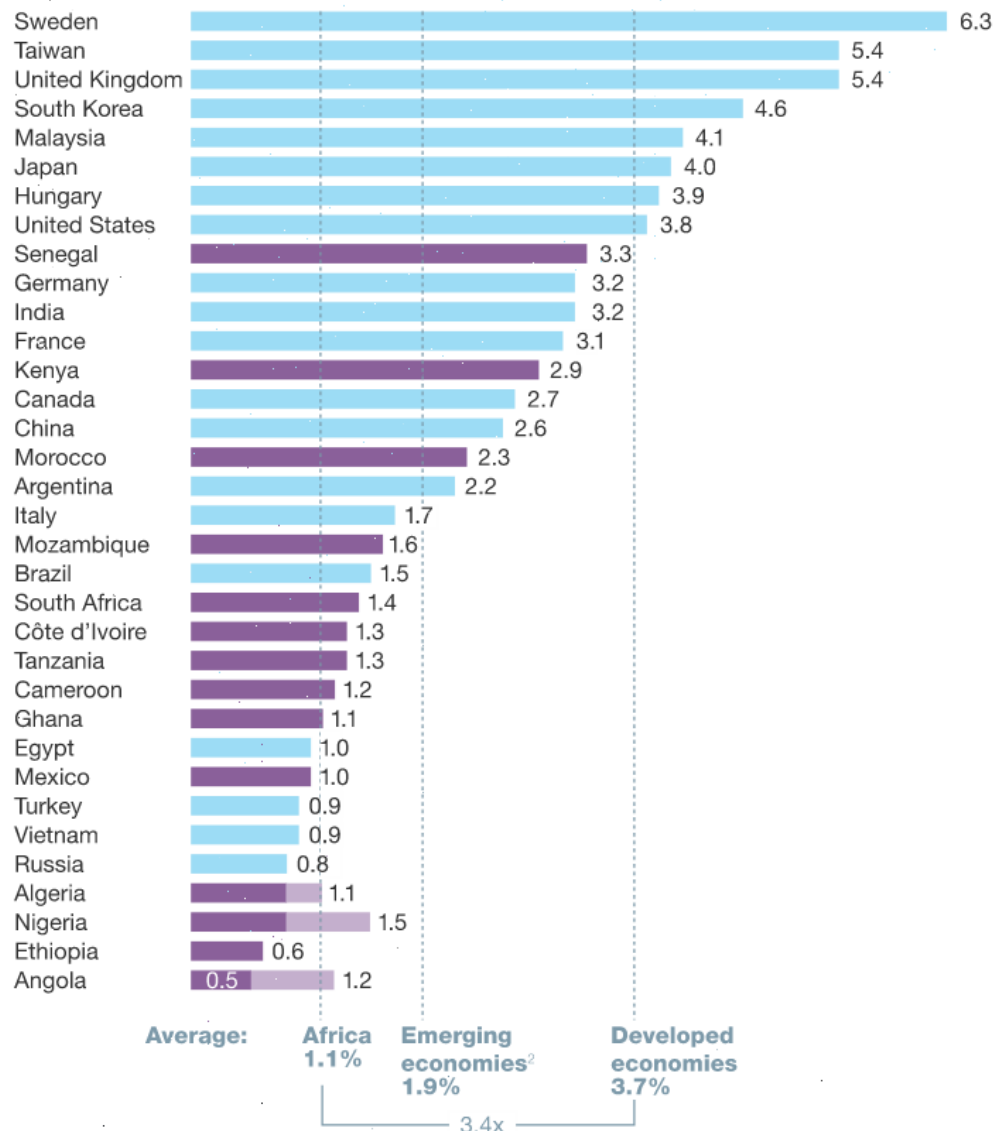
## Start-ups per 1000 Population



## Total Start-ups in 2015



## iGDP – per cent of economy attributable to the internet - 2012



<sup>1</sup>GDP assessed by expenditure method, with a share of each category attributed to the Internet.

<sup>2</sup>Data are from 2010.

Source: Euromonitor; Gartner; IHS Global Insight; International Data Corporation; International Telecommunication Union; H2 Gambling Capital; Organisation for Economic Co-operation and Development; PhoCusWright; Pyramid Research; United Nations Educational, Scientific and Cultural Organization (UNESCO); World Health Organization; McKinsey Global Institute analysis

Source: McKinsey



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# Factors fostering entrepreneurial success

## **Entrepreneurs**

- Opportunity perception plus skills
- Explorer gene ~20% of populace, start businesses or migrate?
- How does a society view entrepreneurs, business, wealth?

## **People**

- Can you hire the right people?
- Is the labour market dynamic?
- Is risk taking 'cool'?

## **Financing**

- Accumulated wealth is critical
- Risk capital, matters more than bank debt
- Sympathetic eco-system of services
- Allow failure

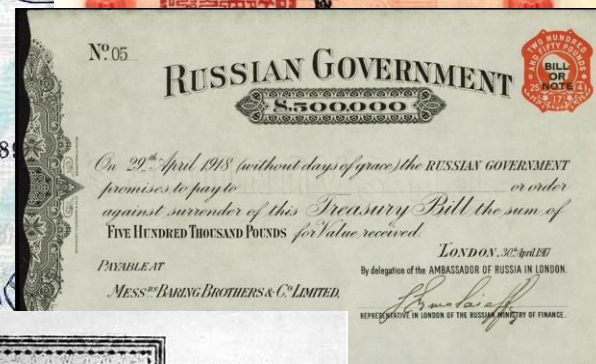
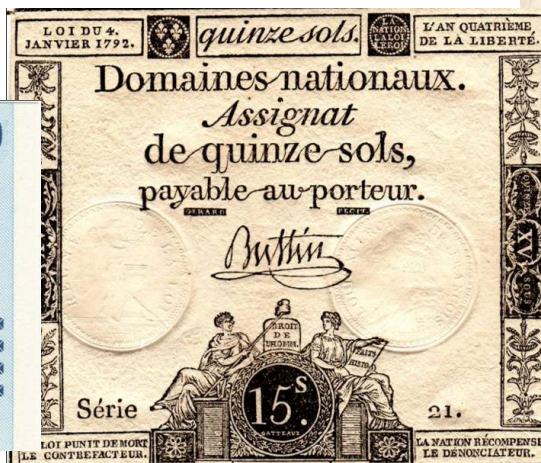
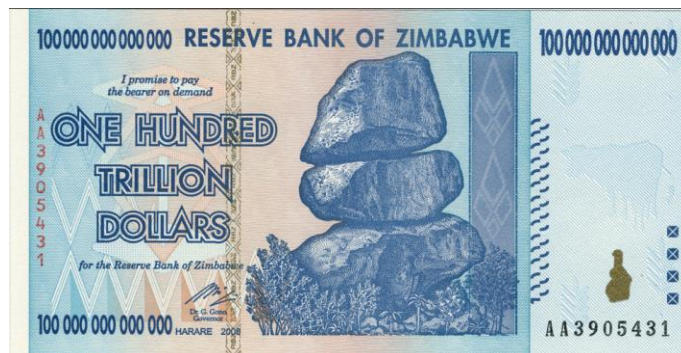
## **Infrastructure & Cluster**

- Networking tension between competition and collaboration
- Is mature economy dynamic?
- Pretty cities matter



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# In government we trust?



# Looking long term

Communism was bad – for wealth and prosperity, for human rights, for human ambitions, philosophically, morally...

Post war economies were elitist, often demand led – Corporatist or Communist.

- From the 1950's to the late 1970's the Soviet Union and its satellites were economically catching up with the West, making plausible the claim that they would – eventually - bury free economies.
- Communists levels of output could keep pace with West through underpaying workers (particularly skilled workers) and vastly undervaluing inputs/resources.

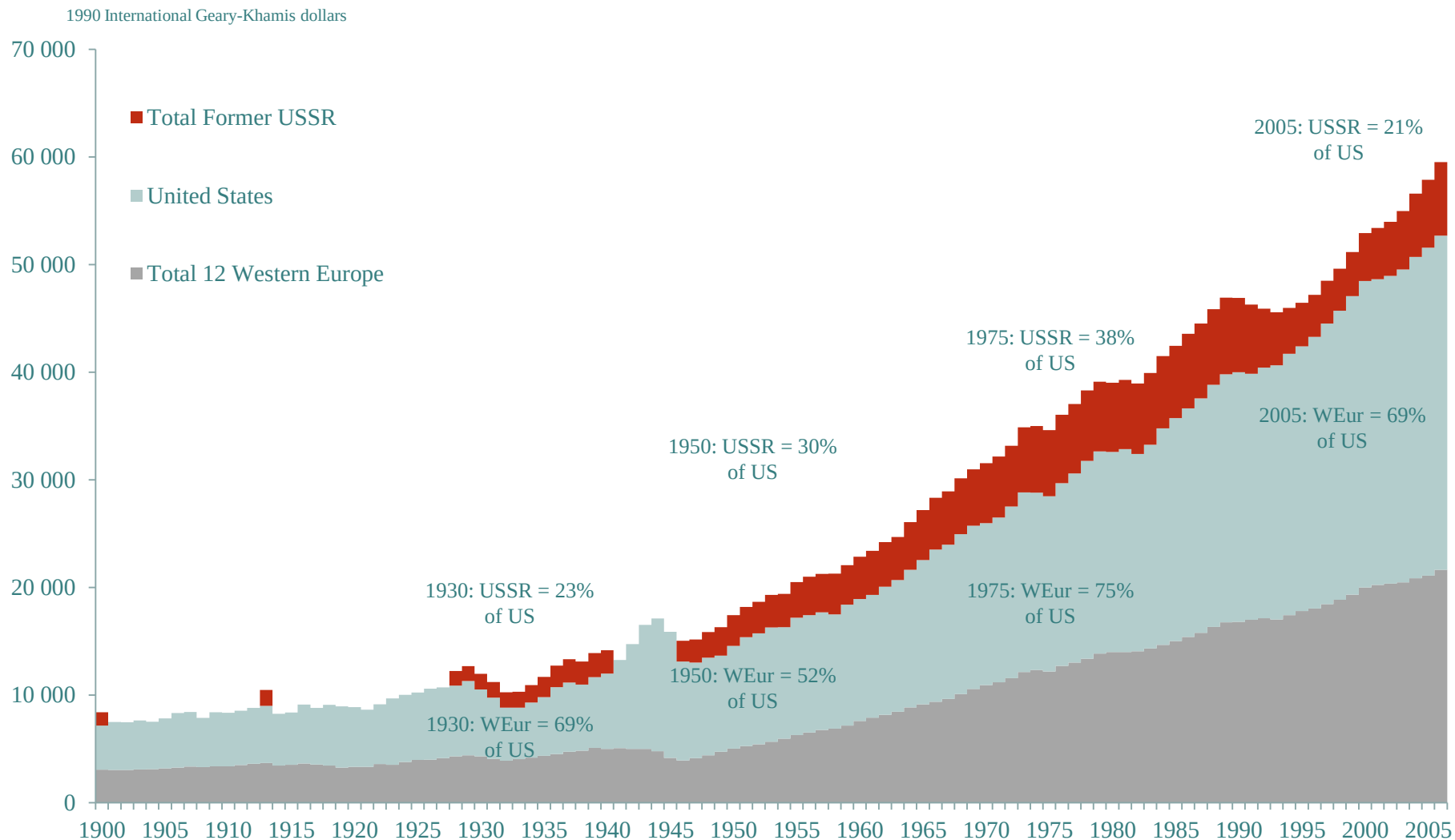
Today economic advancement is bottom up, anti-elite and non-egalitarian

- Key is diffusion of information (price & expertise) and the efficiency of its diffusion becomes a key competitive differentiator.
- Is Europe now at a Communism moment when its existing political and economic structures are incapable of coping with new information focused world



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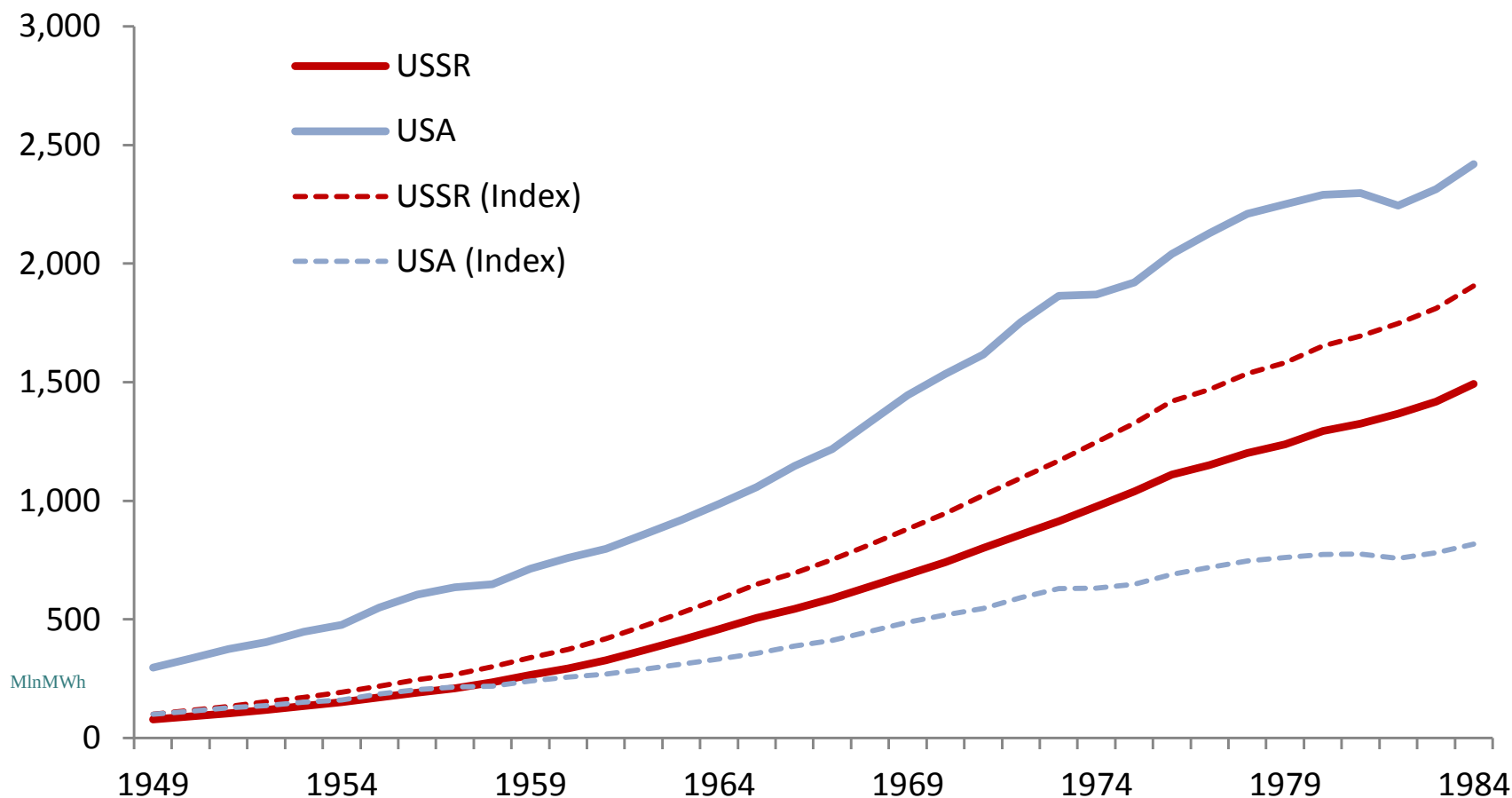
# GDP per Capita (\$)



Source: Historical Statistics of the World Economy: 1-2006 AD; Angus Maddison

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# Electricity generation

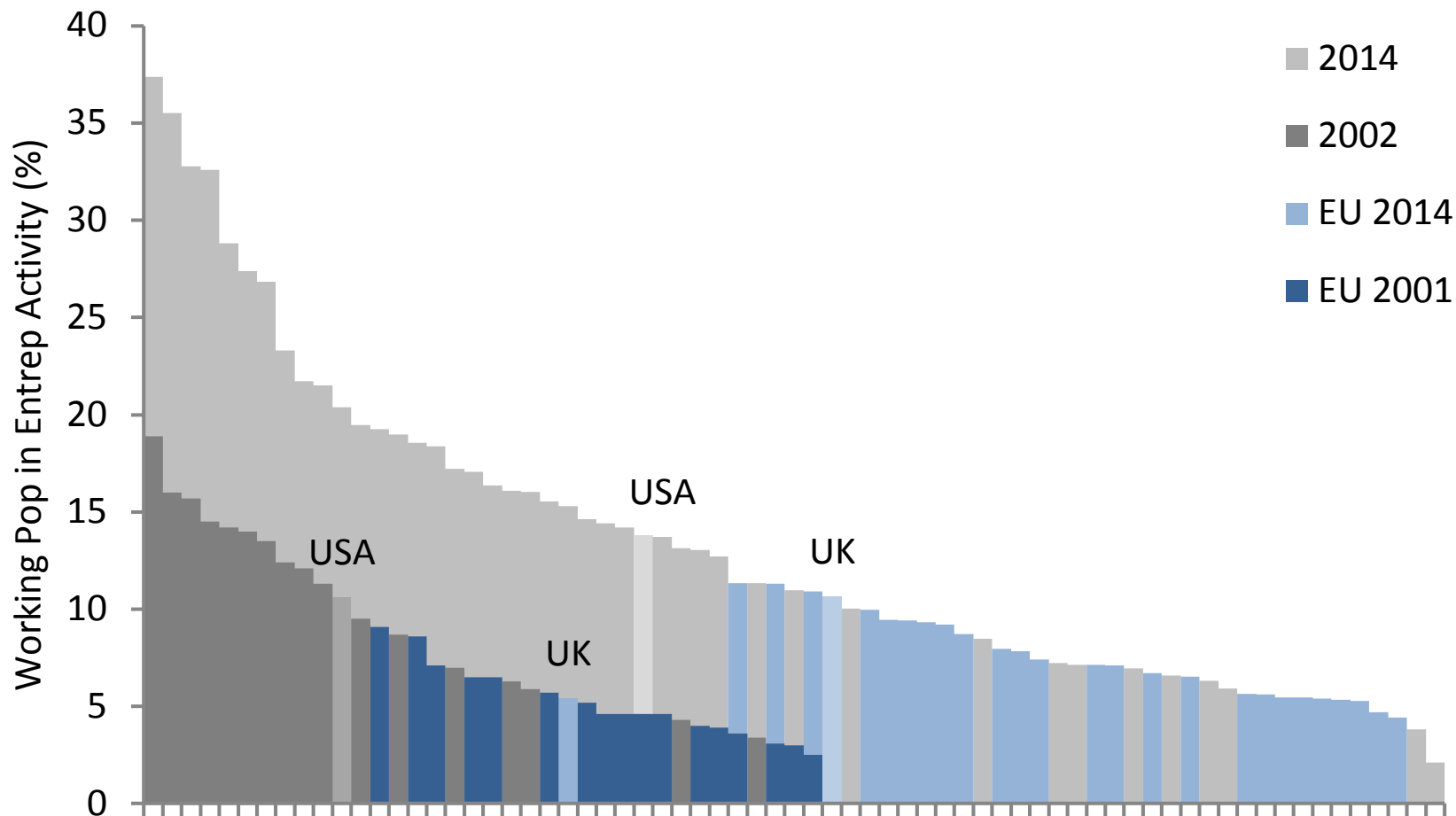


Source: Slavic Research Center Library (citing Narkhoz., Prom.1964) ; USEIA



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# Total Early Stage Entrepreneurship



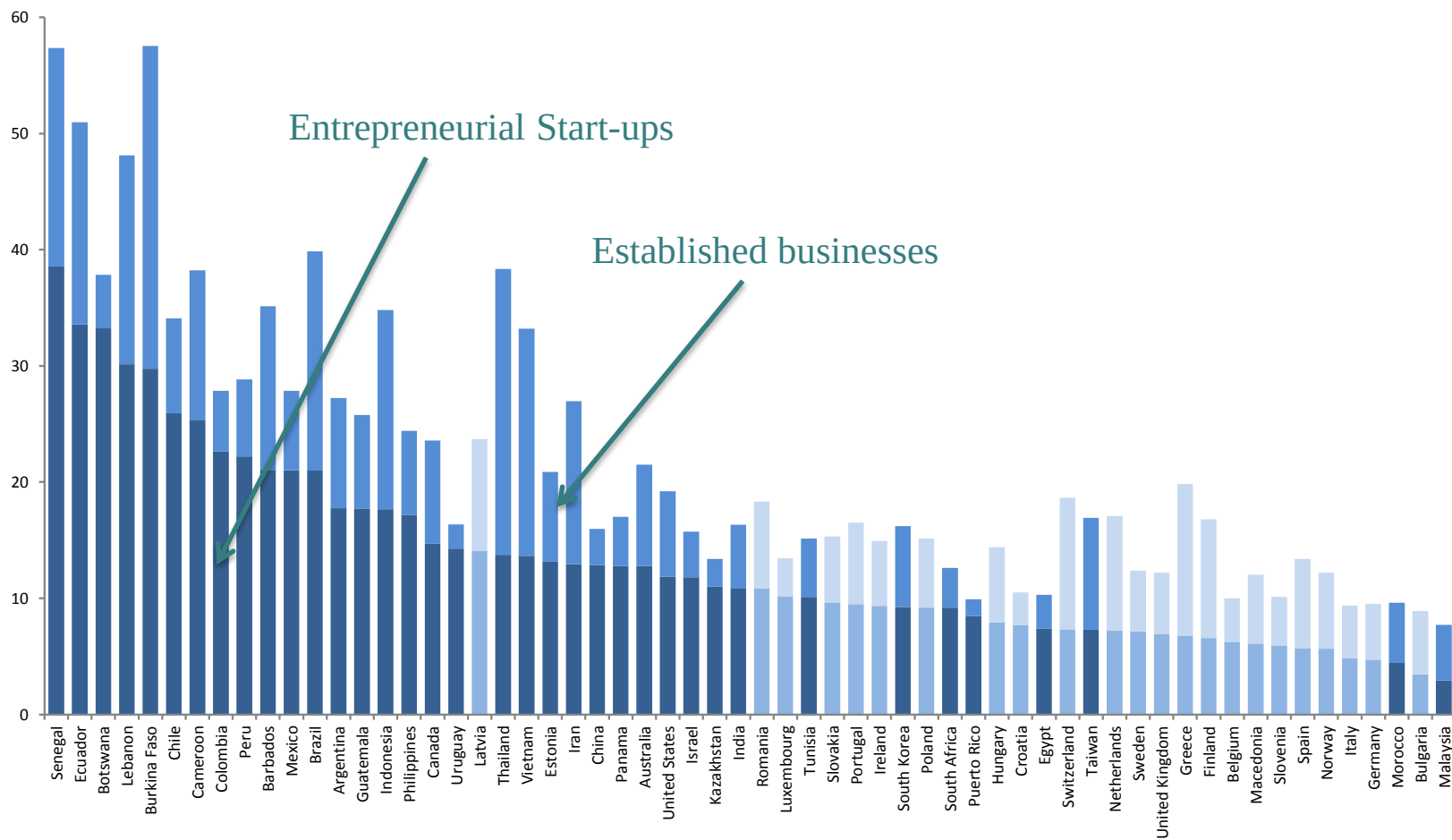
Source: Global Entrepreneurship Monitor

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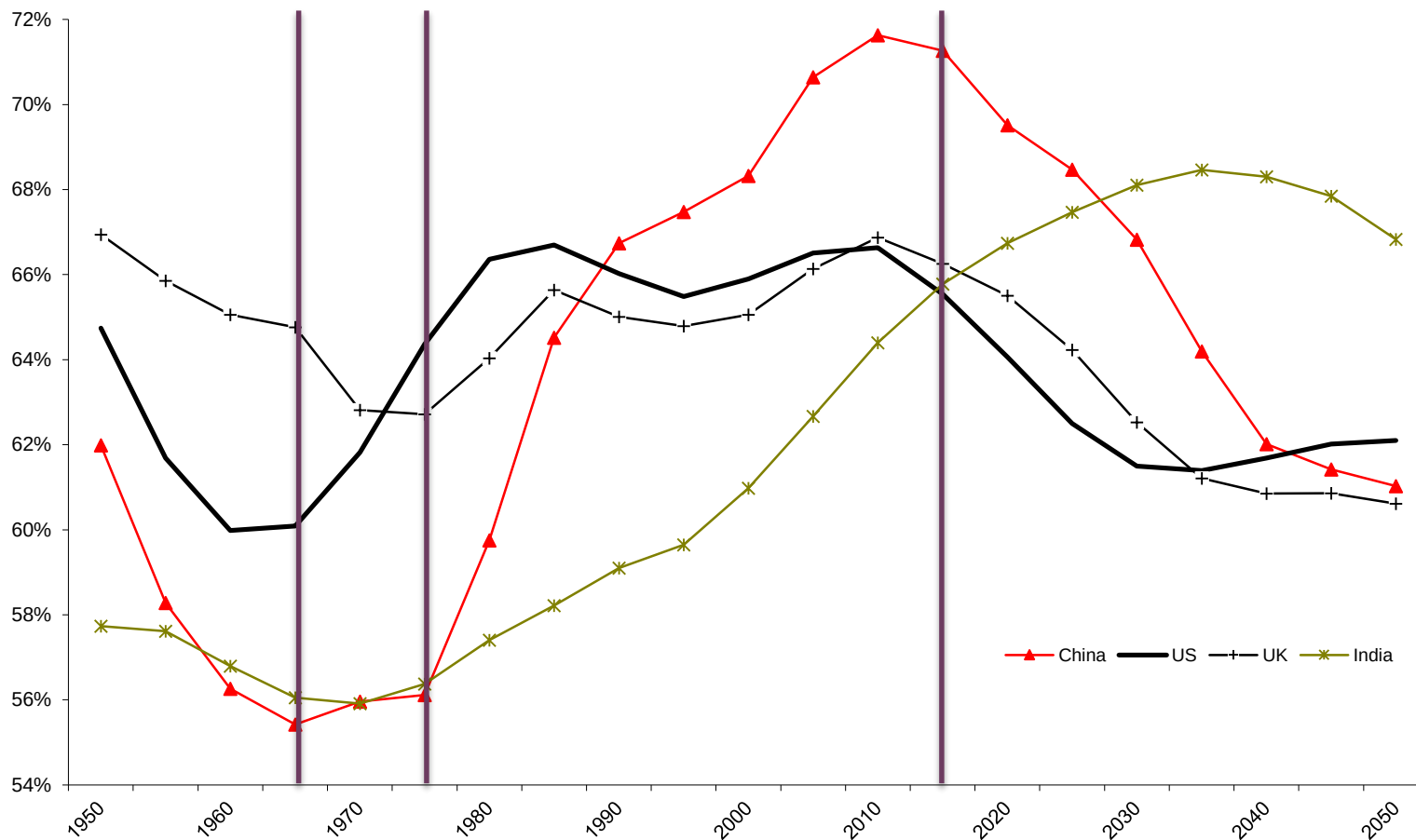
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# Entrepreneurship versus small business

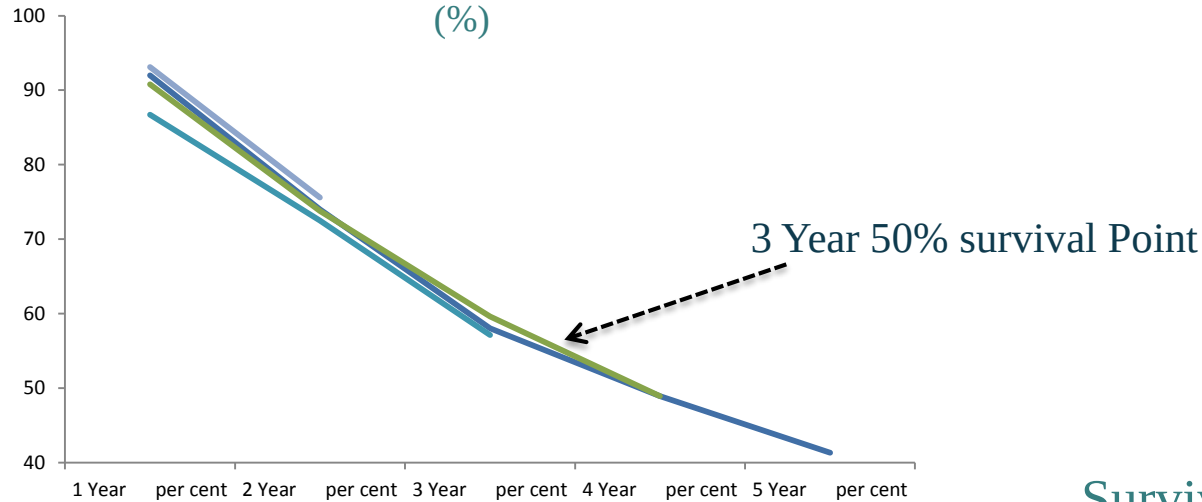


Source: Global Entrepreneurship Monitor

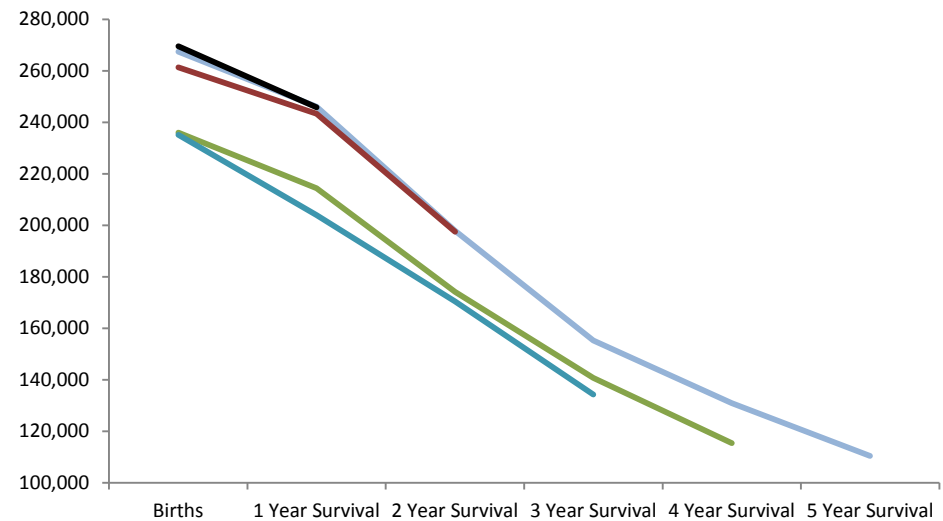
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## Survival of New Enterprises (%)



## Survival of New Enterprises

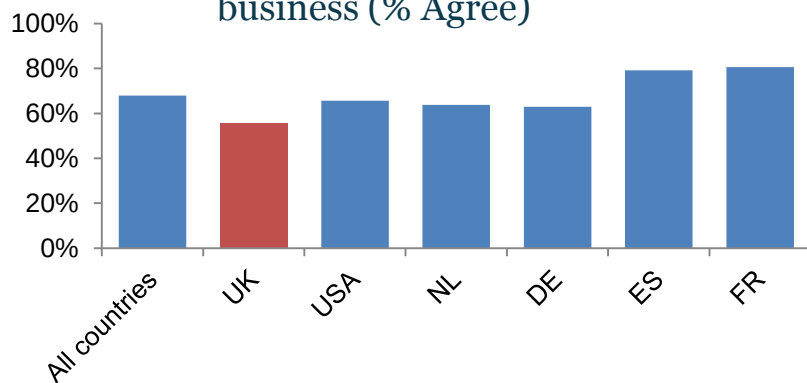




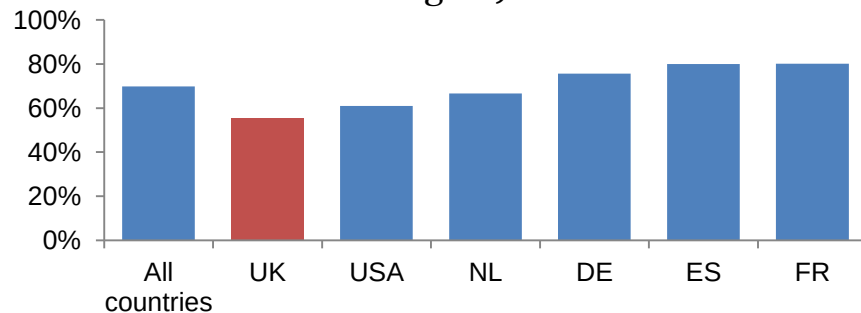
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# Does the UK Encourage Entrepreneurs?

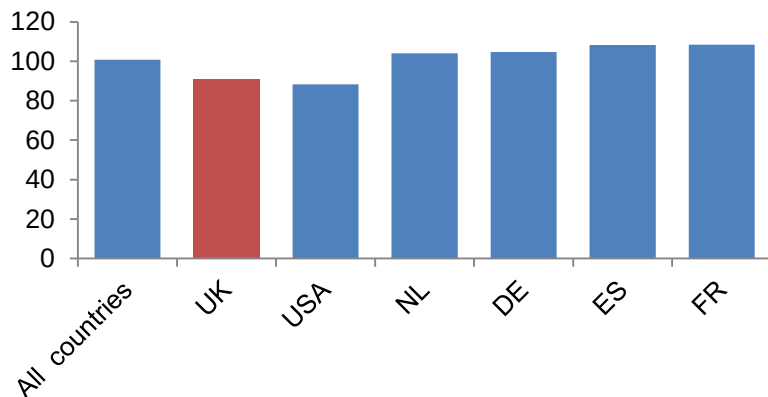
Our taxation system does not favour someone wanting to set up their own business (% Agree)



Government bureaucracy is a major barrier to setting up your own business (% Agree)

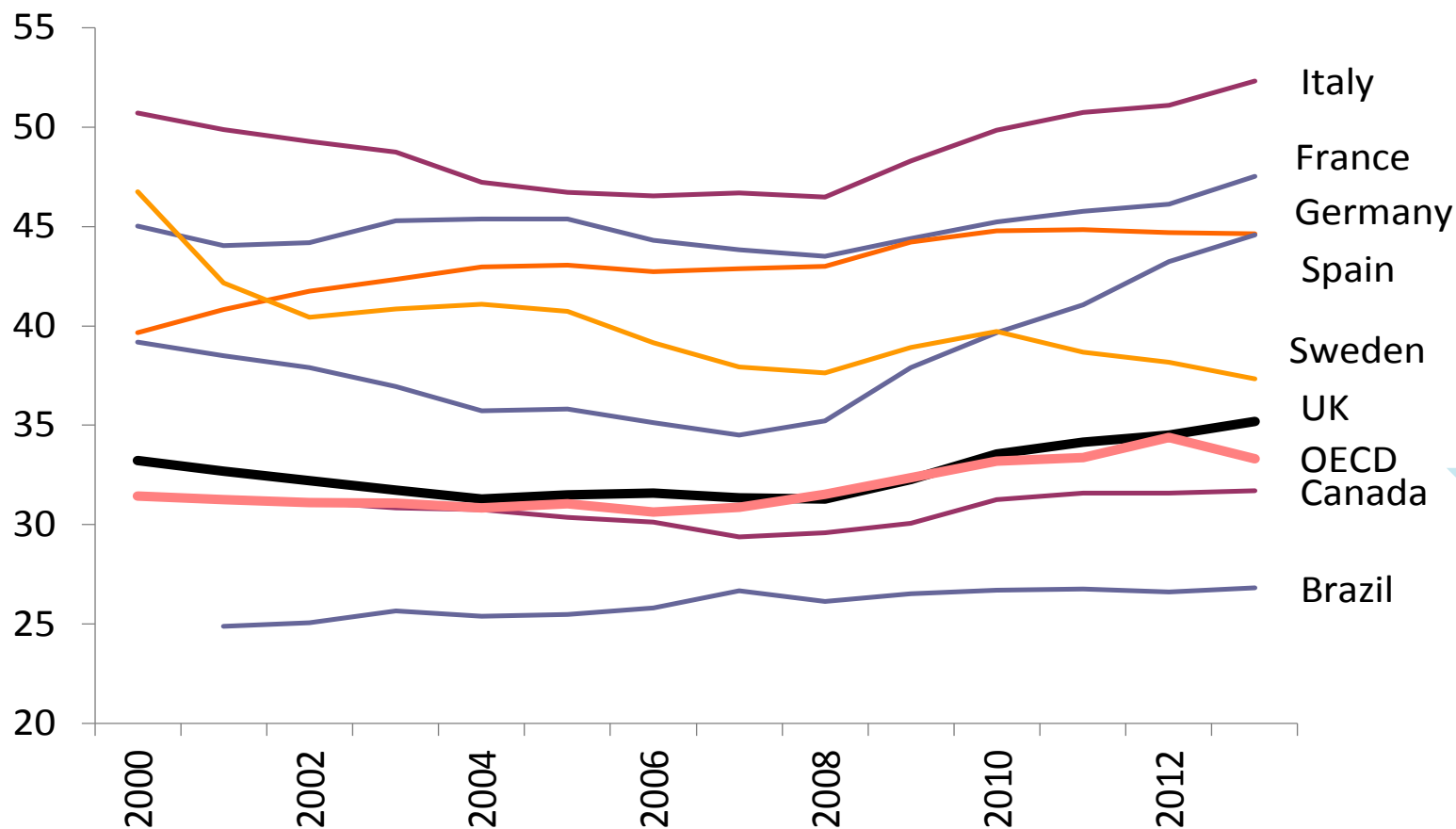


Average time spent each week dealing with government regulation? (In minutes)



Source: Hiscox

# Employment tenure: Employees with over ten years with same employer

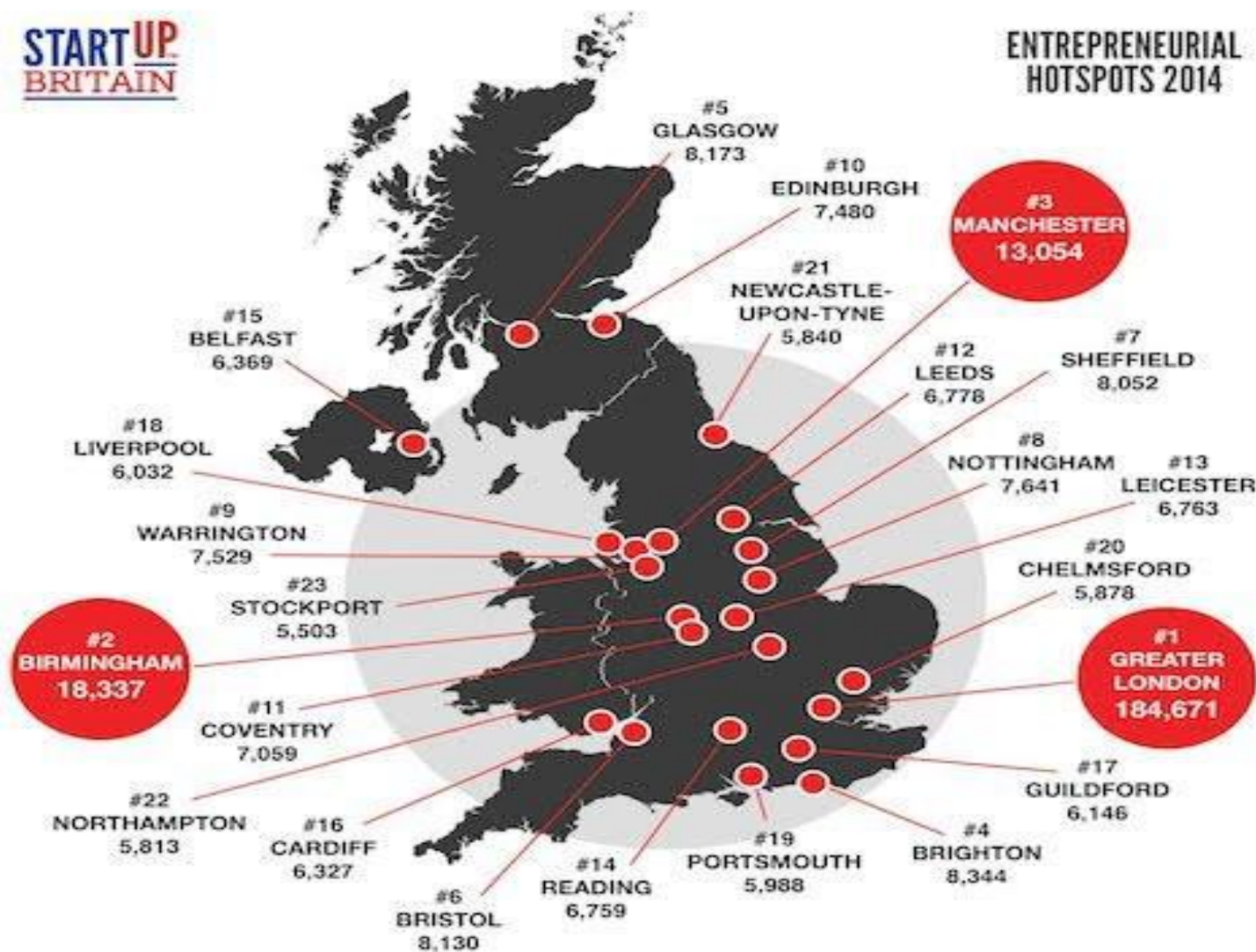


Agility

# UK Business Start-ups

**STARTUP**  
**BRITAIN**

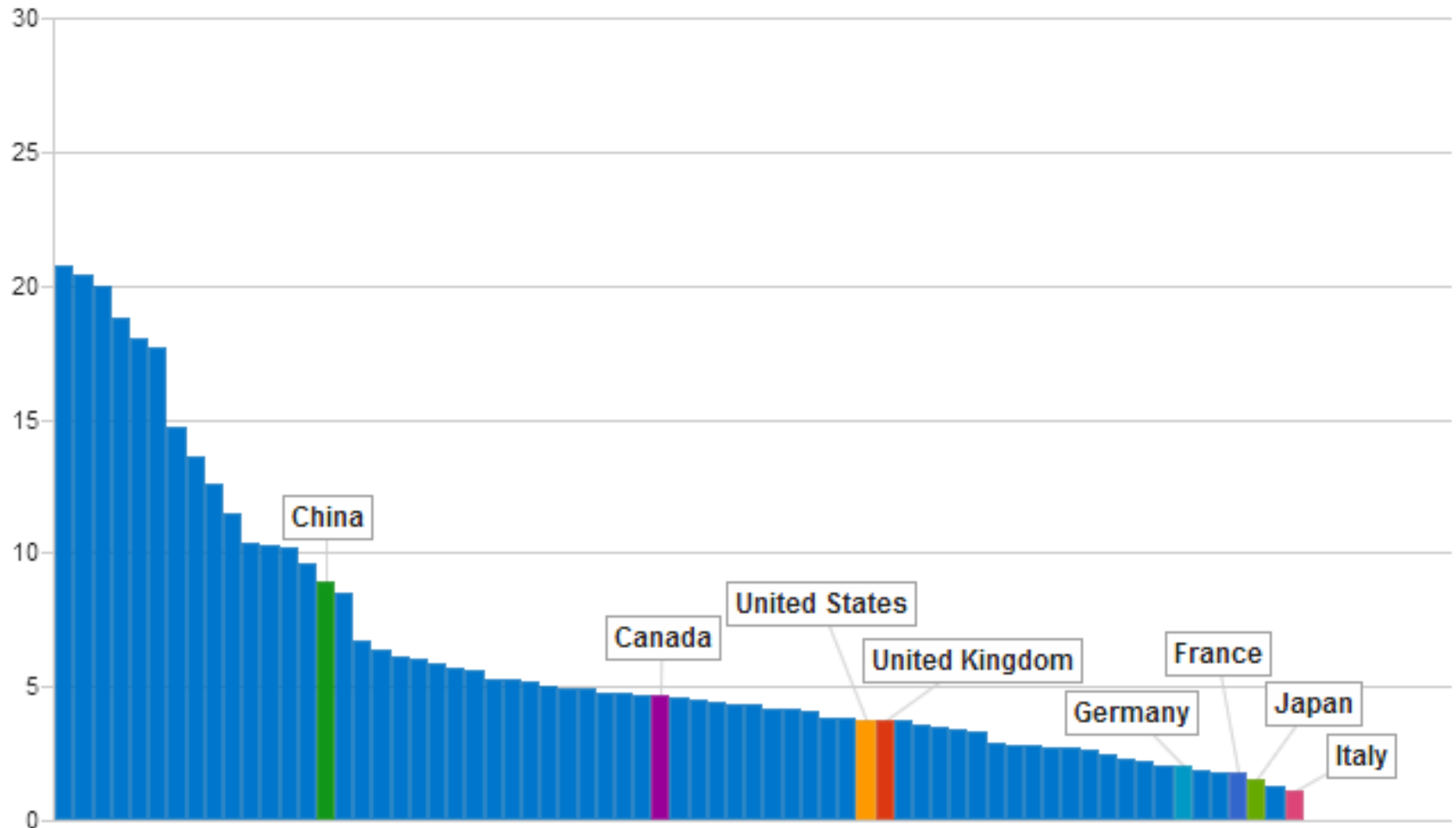
**ENTREPRENEURIAL  
HOTSPOTS 2014**





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# New Business Ownership Rates



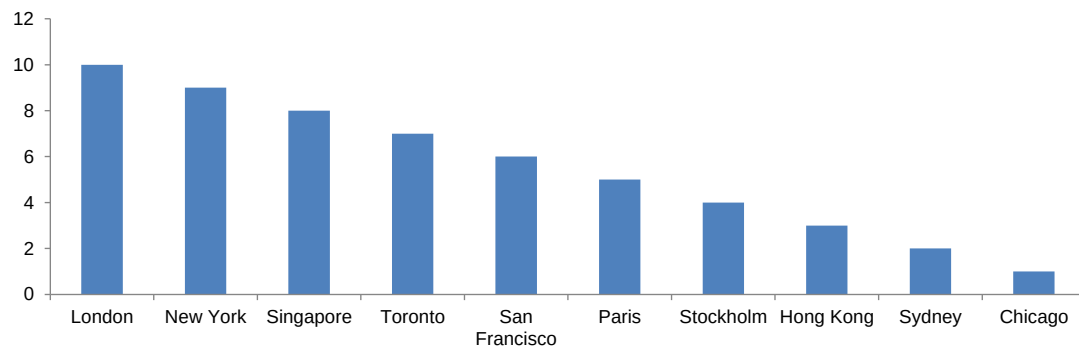
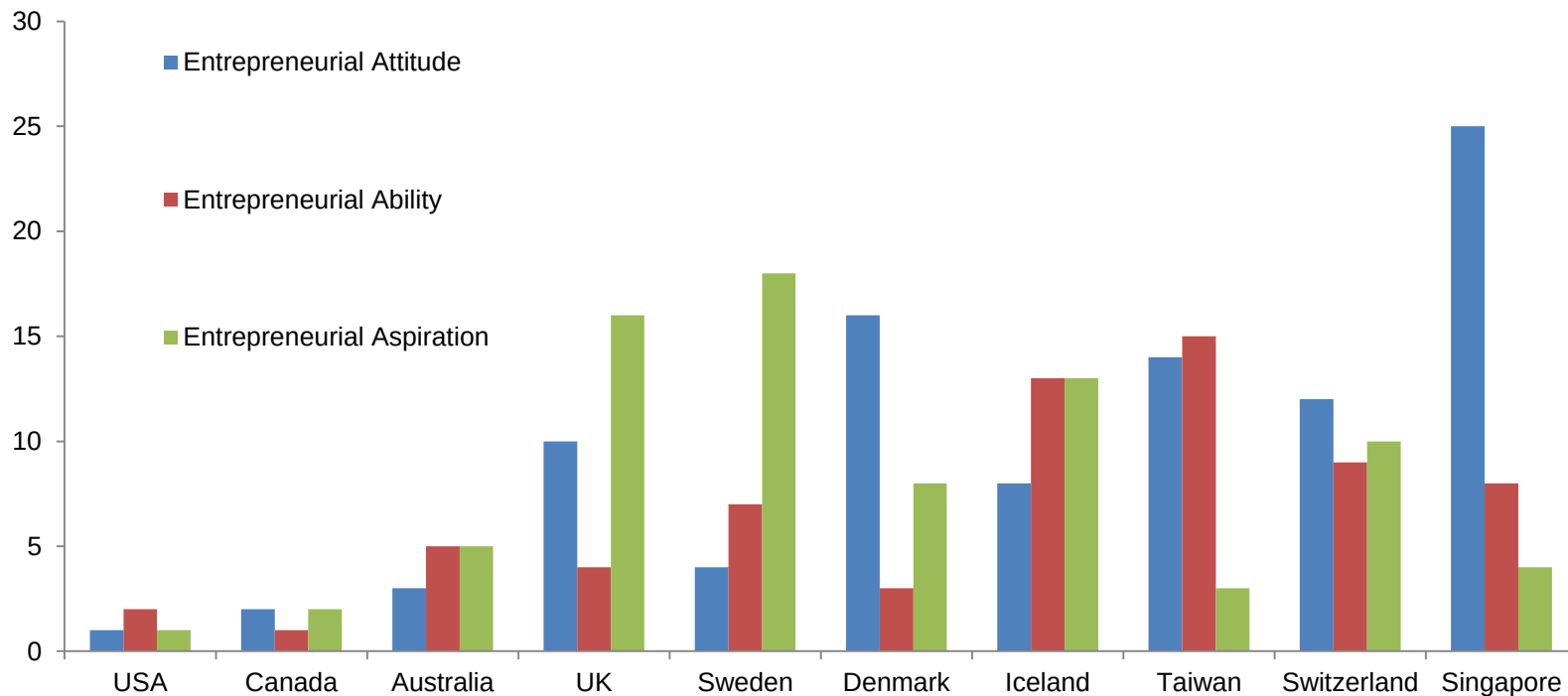
Source: Global Entrepreneurship Monitor

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# How does the UK compare?

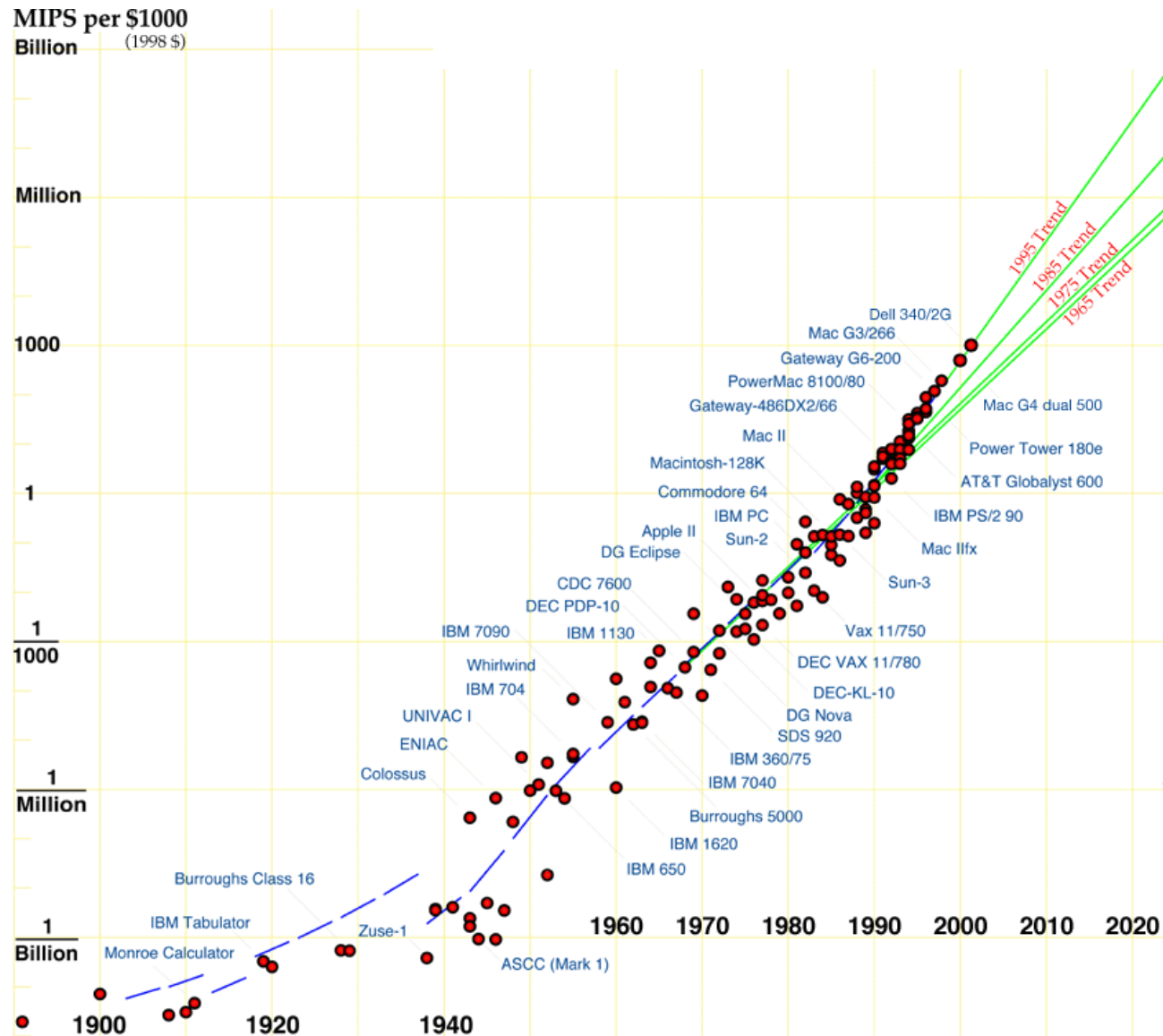


Source: Global Entrepreneurship Monitor



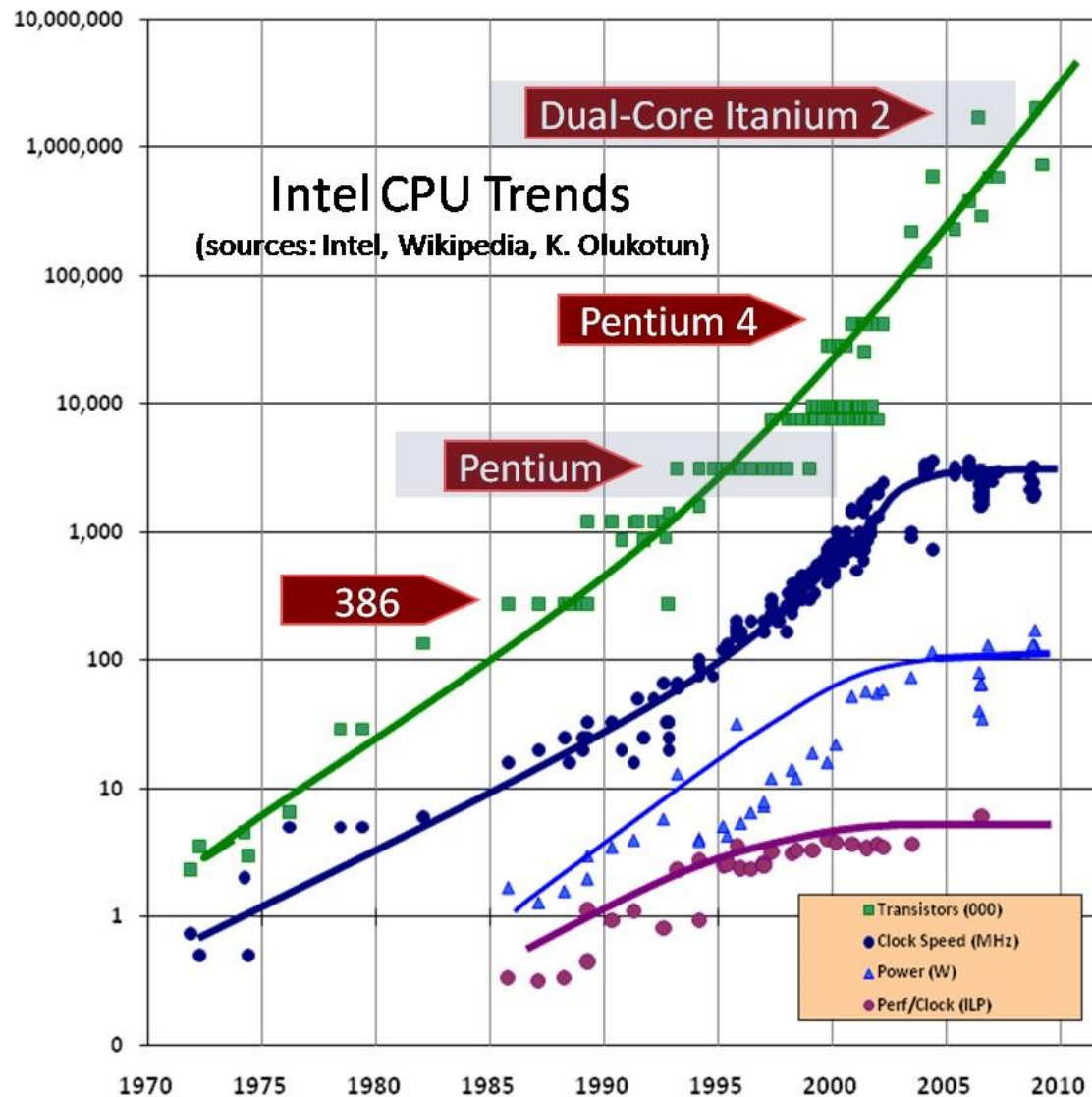
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# Technology driver: rising capacity & falling costs

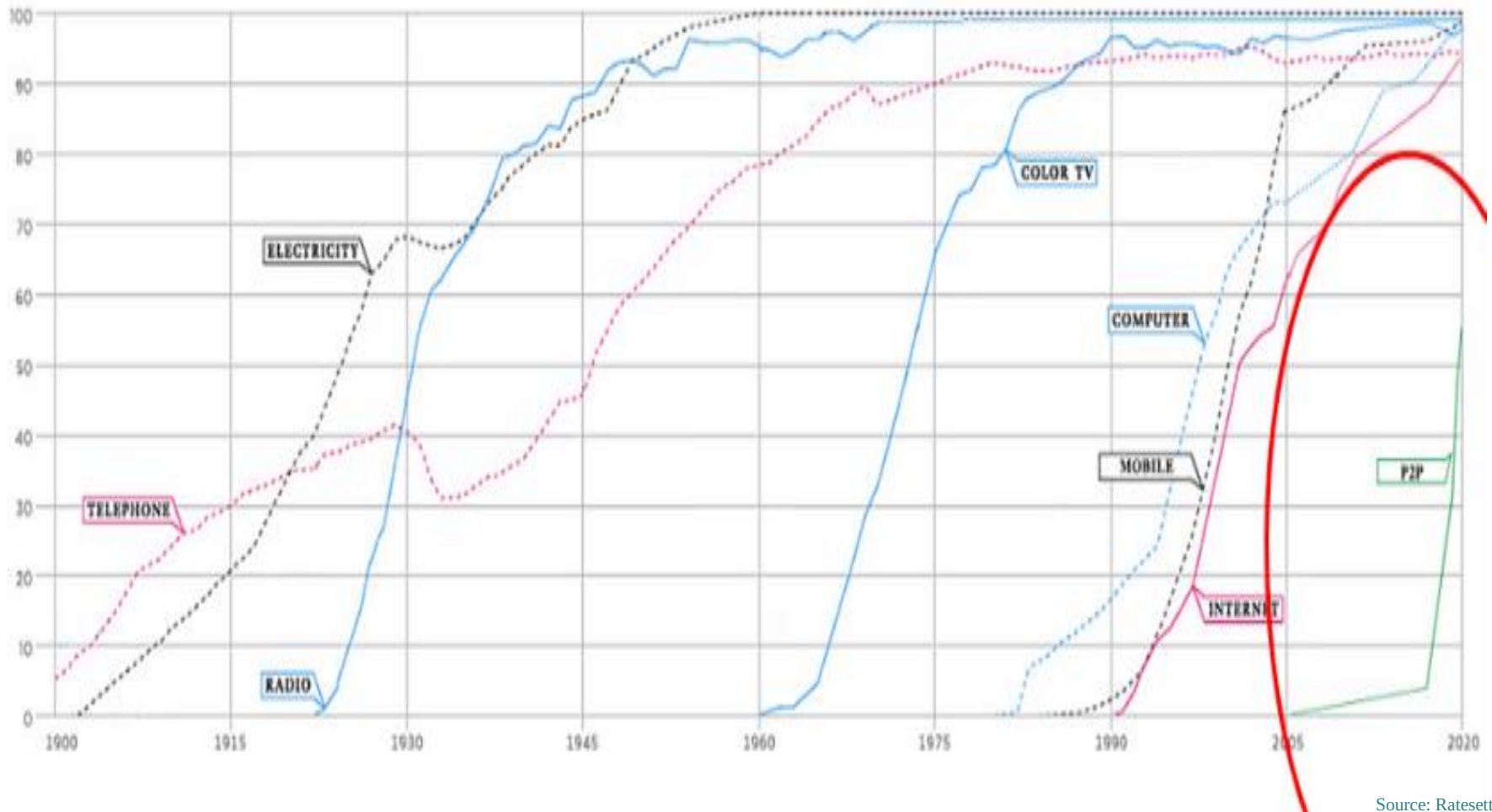


Source: MoCom 2020

## Intel CPU Trends

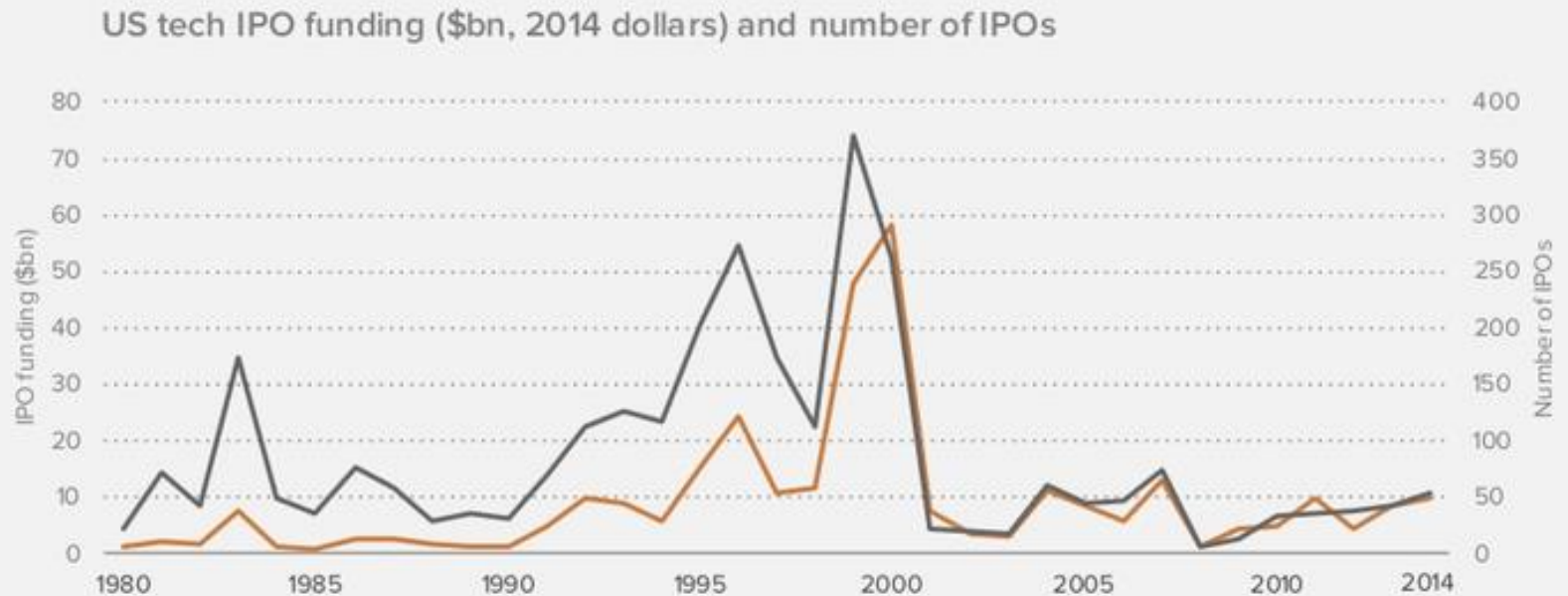


# Adoption Rate of Popular Technologies



Source: Ratesetter

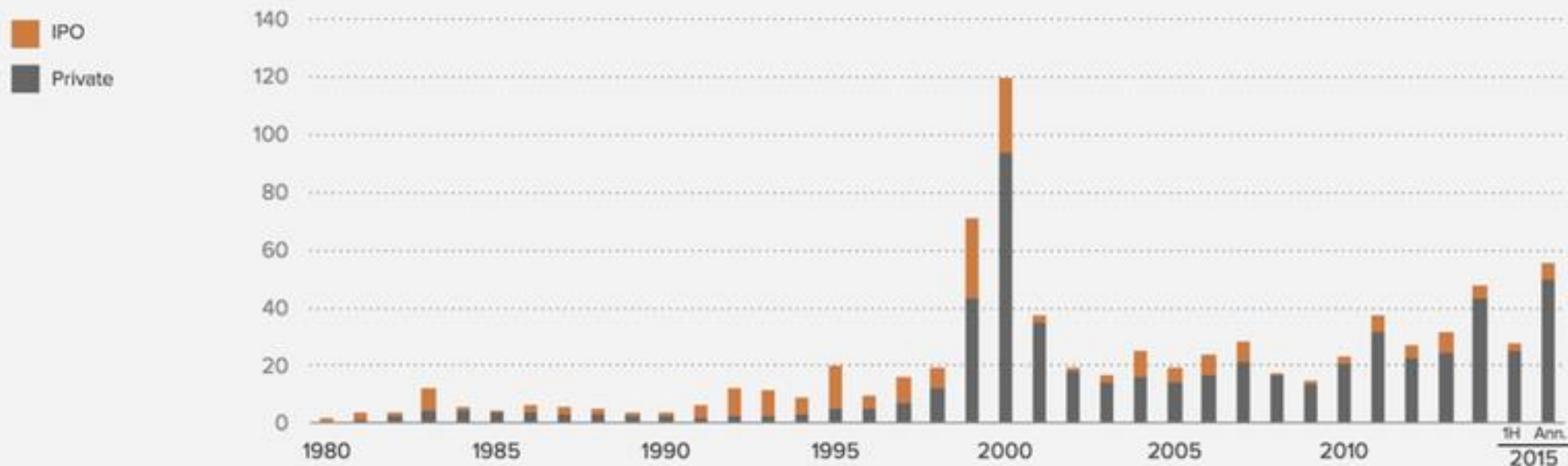
# There are a lot fewer technology IPOs today than in the 1990s



Source: Jay Ritter, University of Florida

# Technology startups are turning to private funding sources instead

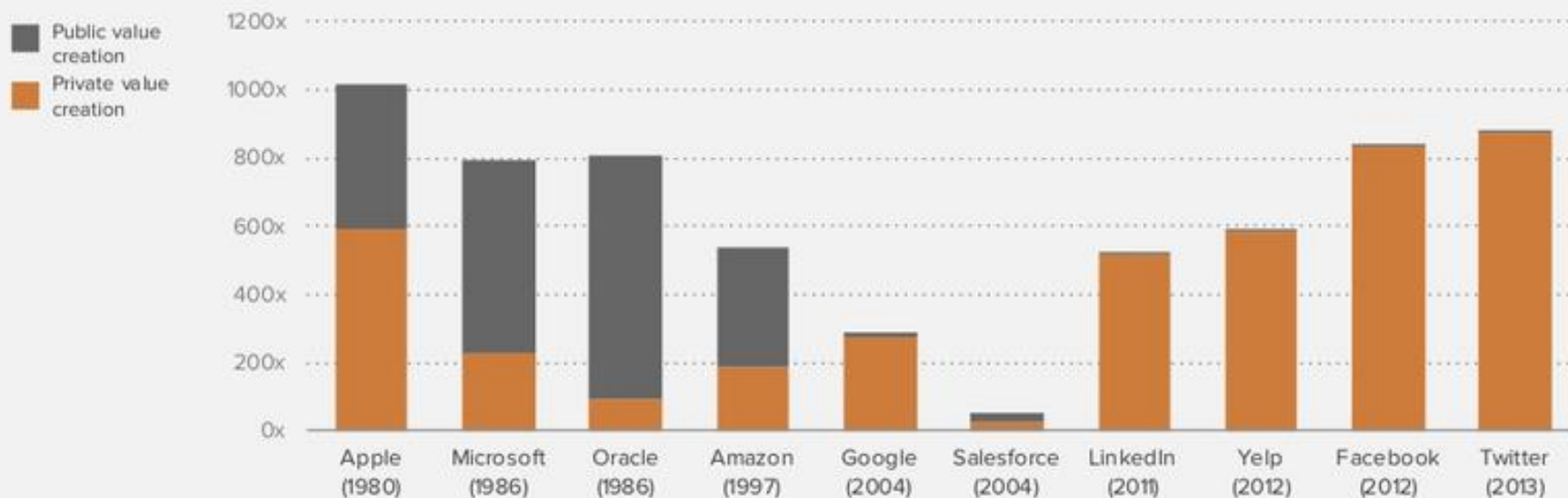
US tech IPO & private funding (\$bn, 2015 dollars)



Source: Capital IQ, Jay Ritter, University of Florida, NVCA, a16z

# Later IPOs means fewer opportunities and risks, for non-wealthy investors

Private versus public market return multiples for select public US tech companies



Note: see endnotes for methodology. Source: Capital IQ, Pitchbook, Quora, a16z



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# Stock prices don't reflect a technology bubble



Source: Bloomberg



# Significant economic pressures remain

## Macro Economic Pressure

- Recovery progressing, but dangerous disruptions still loom
- Tax yields have peaked
- Monetary policy remains emasculated

## Political Pressure

- Tactical populism tempts
- Change and a re-ordering of priorities will be resisted
- Politicians face trust issues

## Consumer Pressure

- Consumers show little or no loyalty
- More product for less money is now the expected normal
- Many businesses face consumer trust issue

## New Technology Pressure

- New technologies allow for lower cost production and distribution
- Analytics necessary to remain relevant
- Market commoditising in face of need to invest to compete

## Future Trends

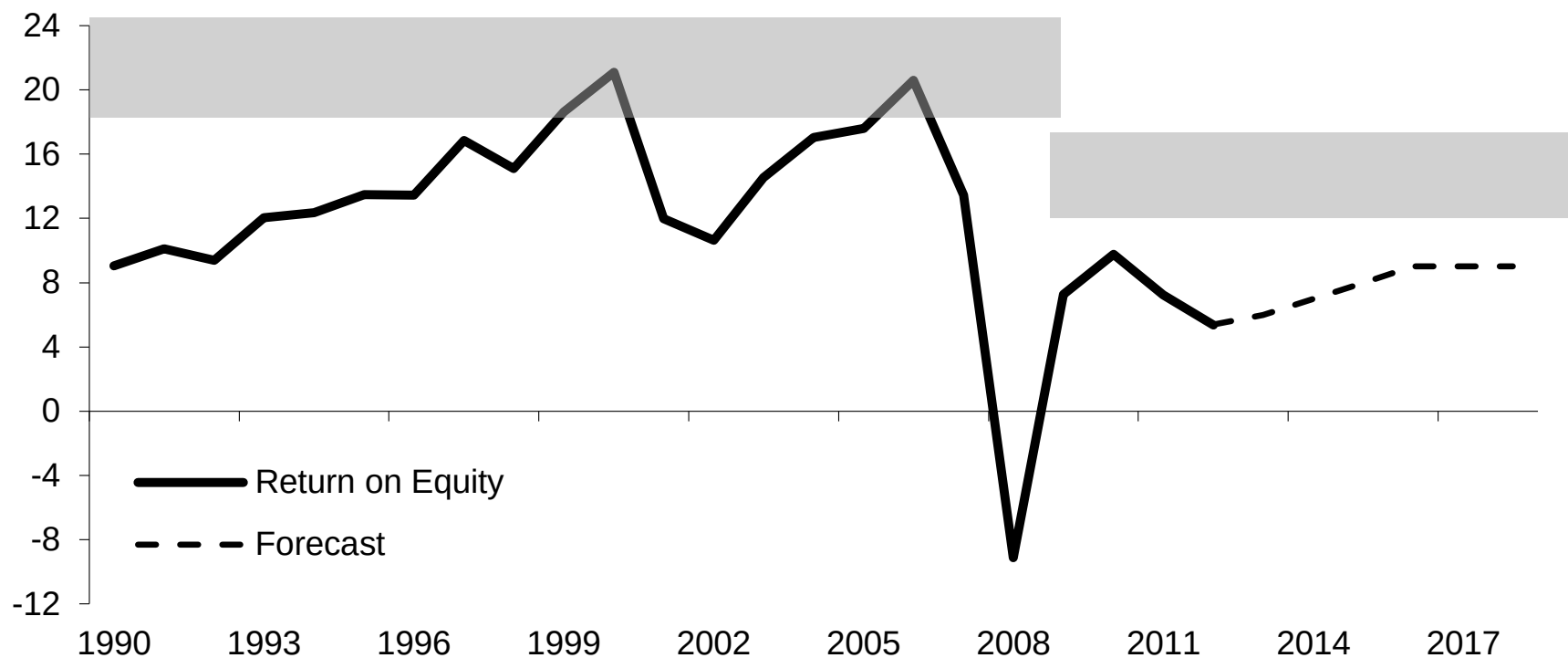
- Premium on Agility
- Business will lead politics
- Technology needs fertile ground to flourish



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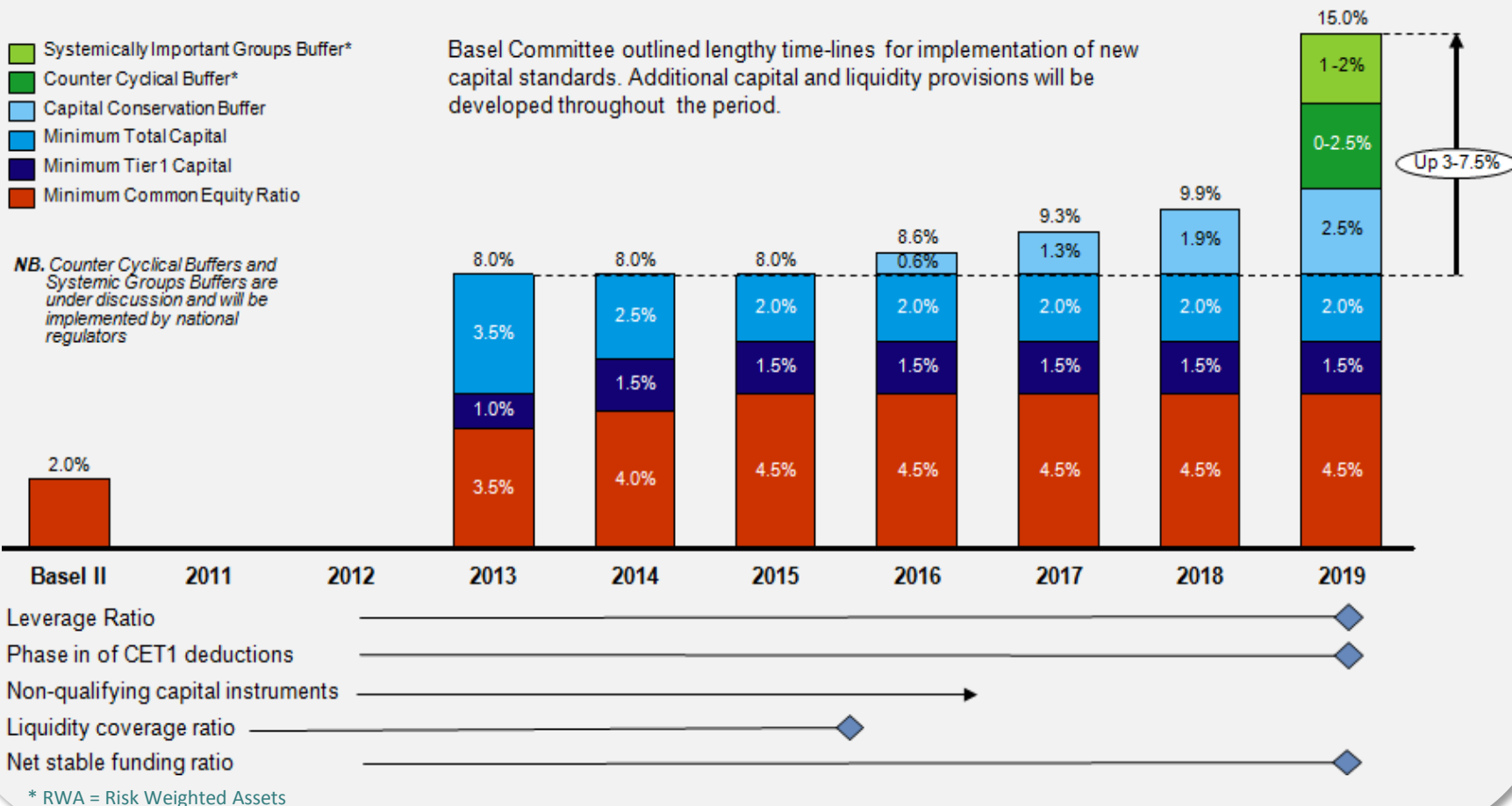
# Investment Banking

# Investment Banking: industry returns



# Basel III requirements pose a major challenge, but some are better positioned than others

Basel III Capital Requirements (2011-19) Phase In – Equity (RWA\* %)



Capital and funding will continue to constrain profitability for some time to come.

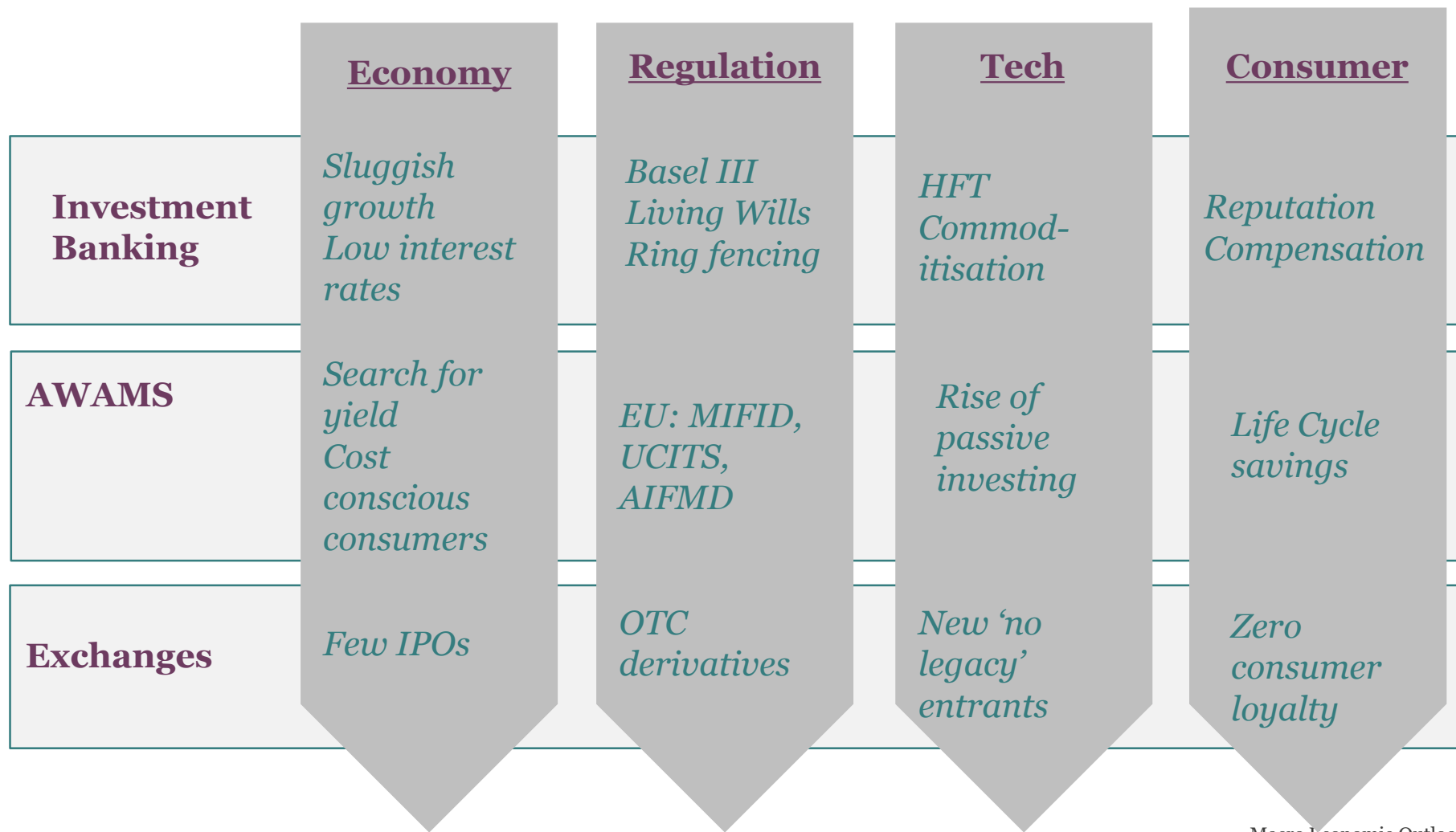
Source: IoD Policy Unit Research

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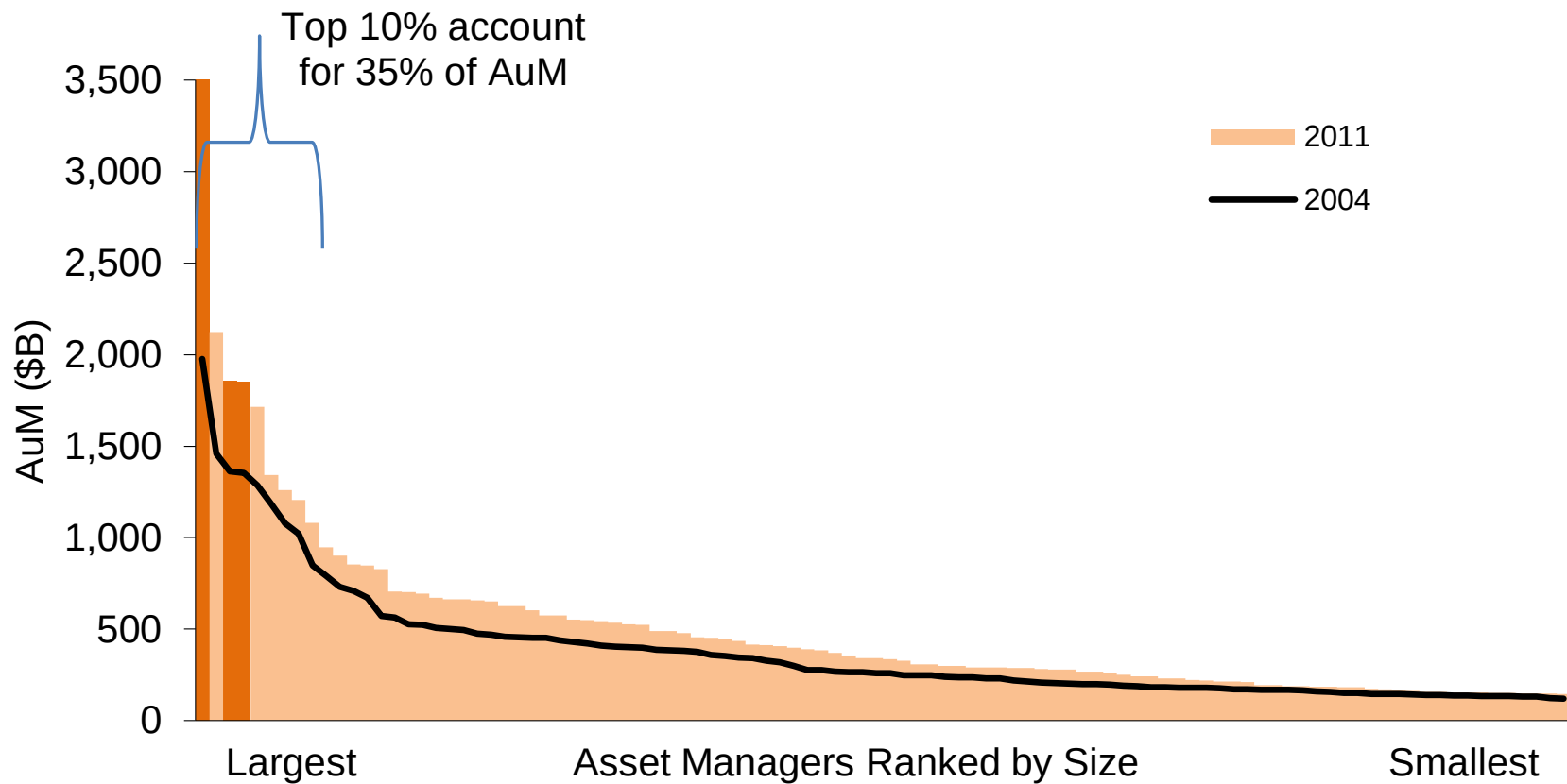
# Investment Banking: industry returns





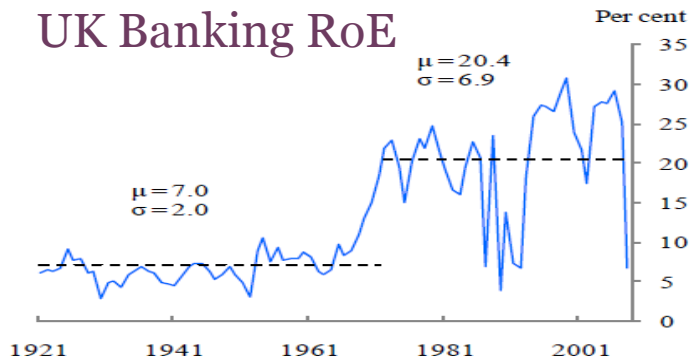
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# Asset Management

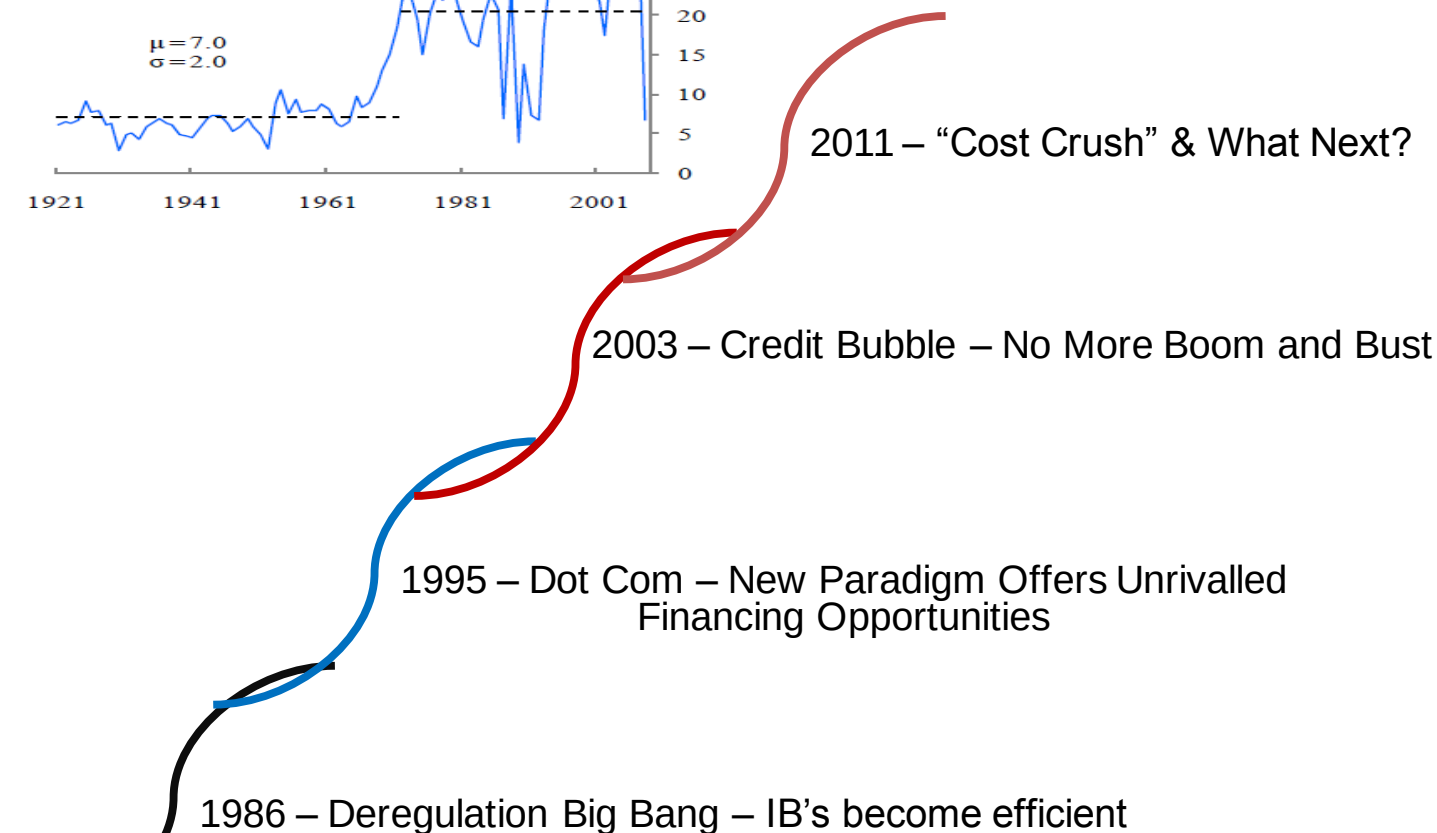


# Climbing the “Industry S Curve”

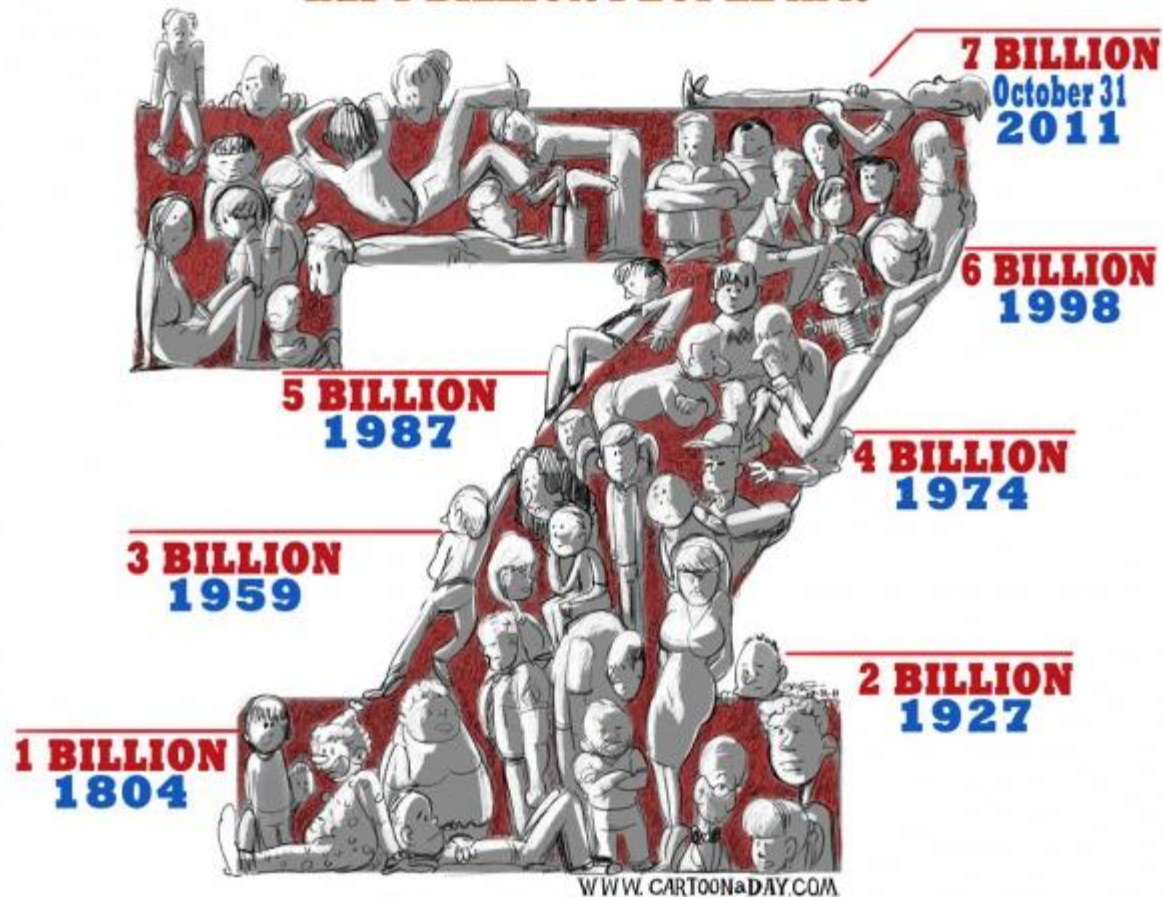
## UK Banking RoE



## Investment Banking “S” Curve



**As of RIGHT NOW, the world you live in today  
has 7 BILLION PEOPLE in it**



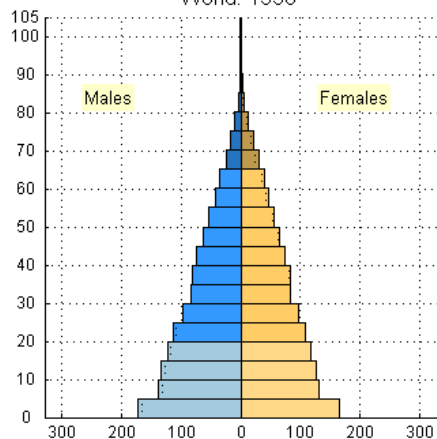
**...where do YOU fit in?**



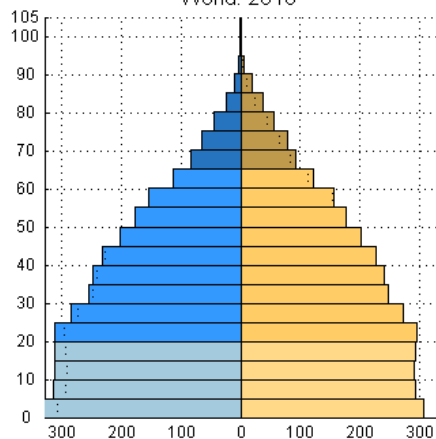
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# Global population trends

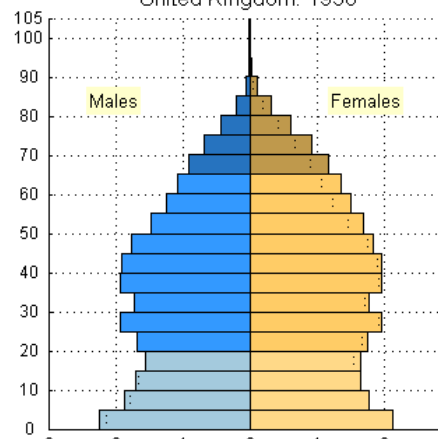
World: 1950



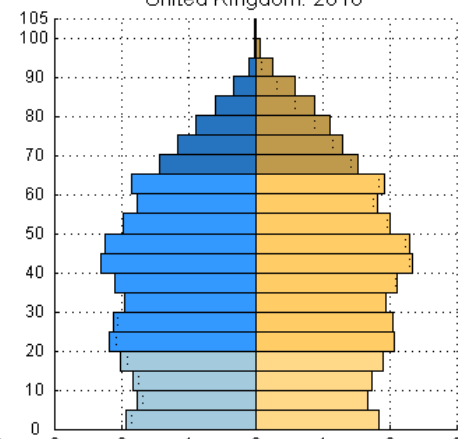
World: 2010



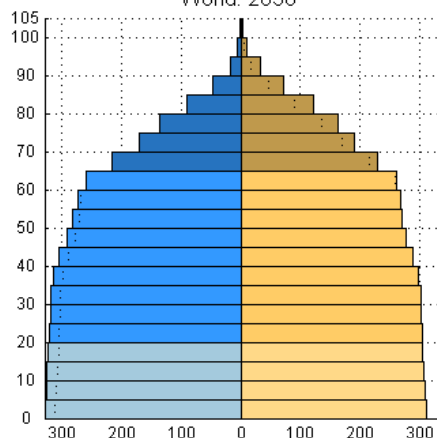
United Kingdom: 1950



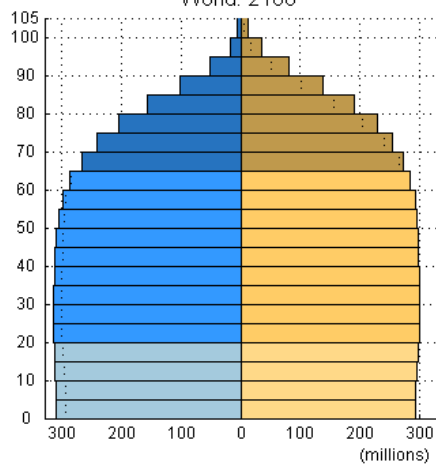
United Kingdom: 2010



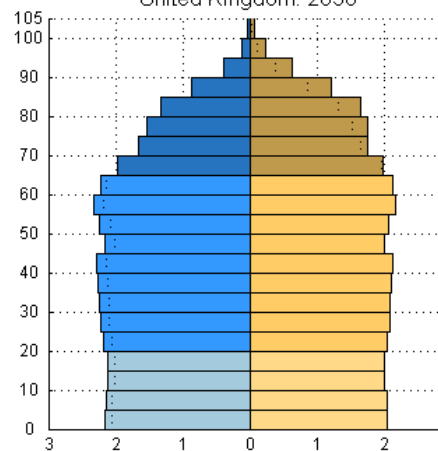
World: 2050



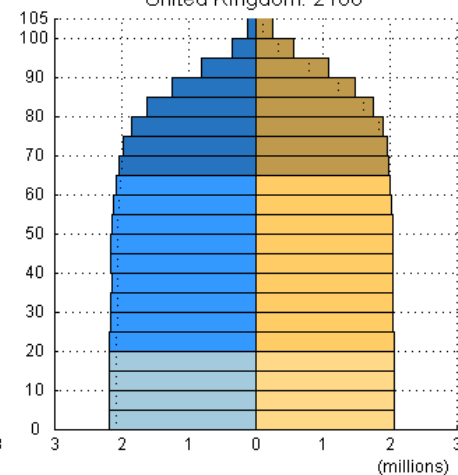
World: 2100



United Kingdom: 2050

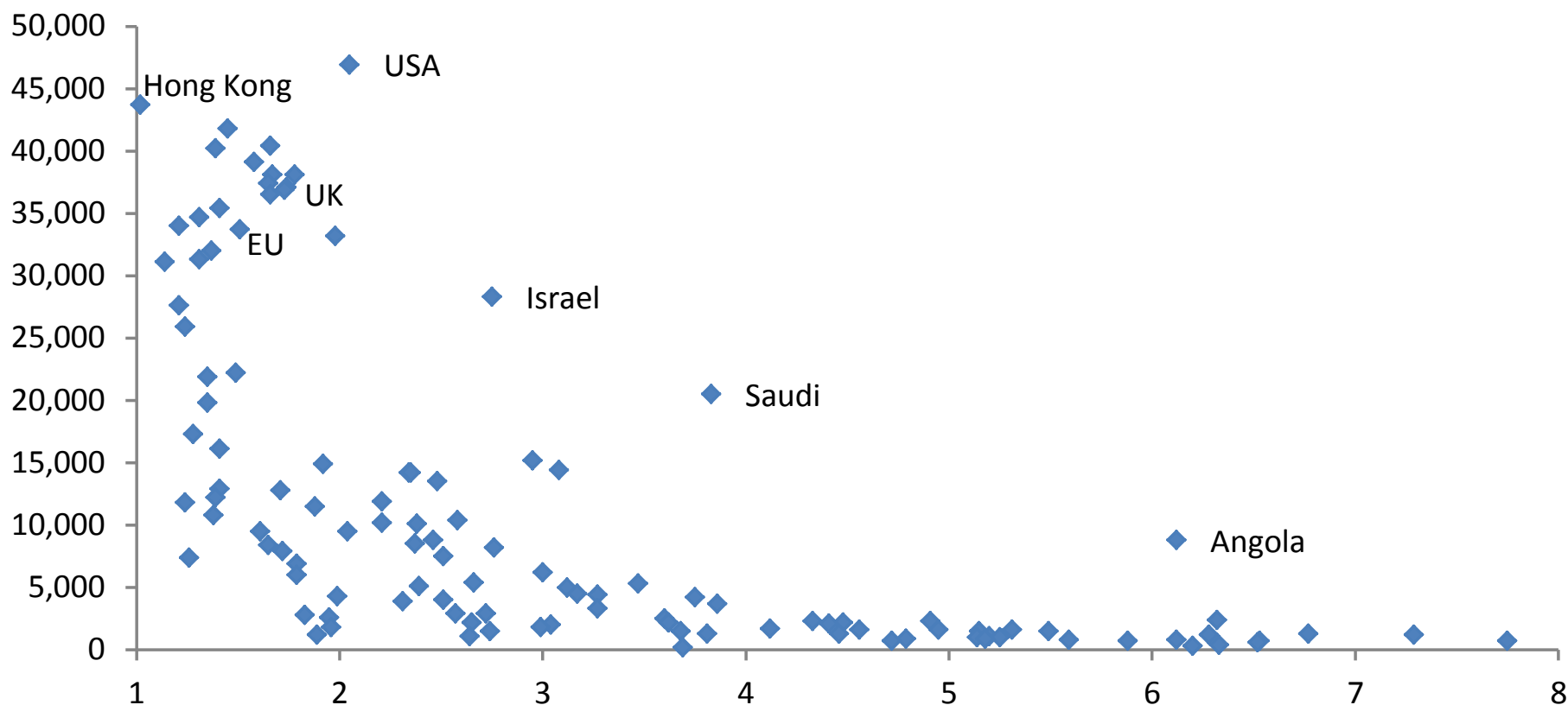


United Kingdom: 2100



# Global fertility rates

Global Fertility and GDP (PPP)  
(2009 data)

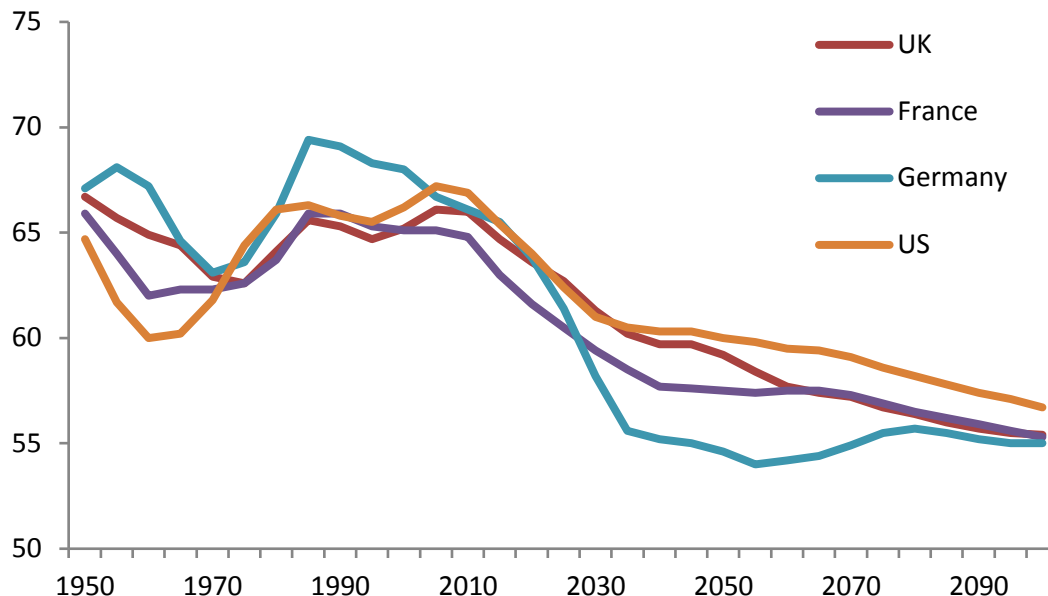




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## Developed world – Working Age Population

- Demographics drive economic growth
- Baby Boom – starts in 1955, runs to 1970's
- Key was economic prosperity of 1950's, not return of soldiers
- US and European working age population now at all time peak, set to decline by 0.4% to 0.8% through 2040



Developed World Working Age  
Populace  
(% 15-64/Total Population )

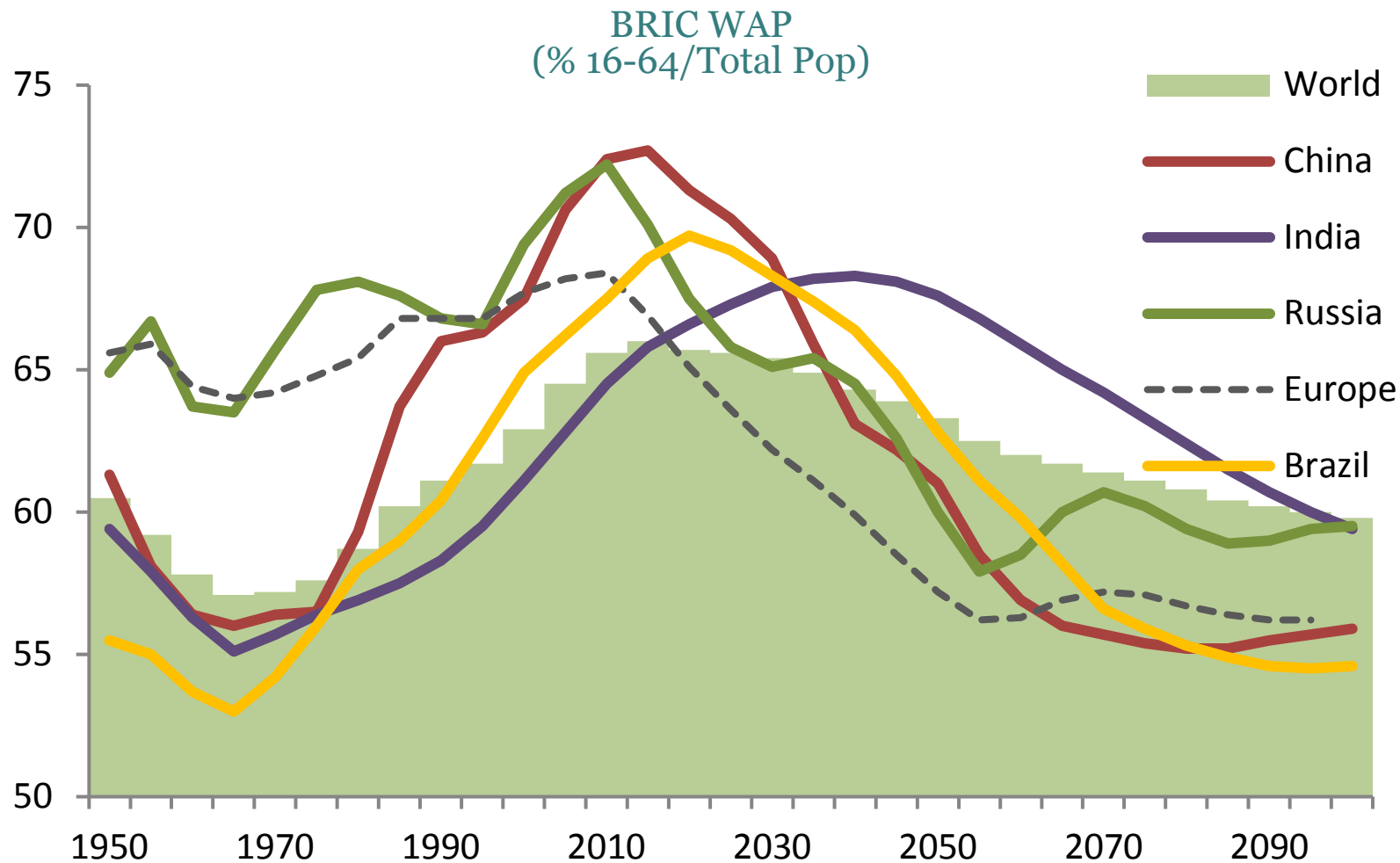
Source: UN Population Database

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# BRIC – Working Age Population



Source: ONS, UN Population Database

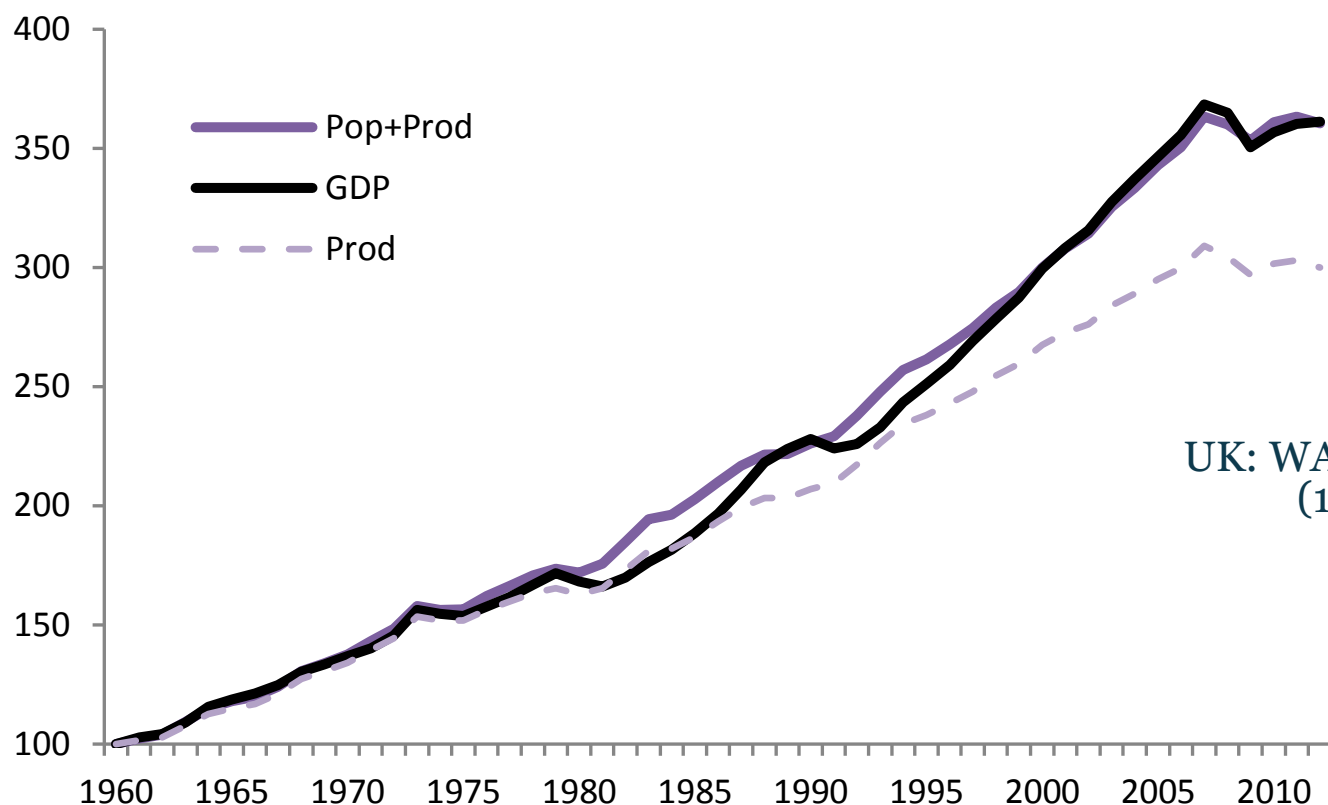
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## UK: Working Age Population + Productivity vs GDP

- Long Term – Growth is dependant on Population and Productivity increases
- On average growth in WAP populace has accounted for ~20% of total growth.
- GDP is consumption measure; Productivity an output measure



UK: WAP + Prod vs GDP  
(1960 = 100)

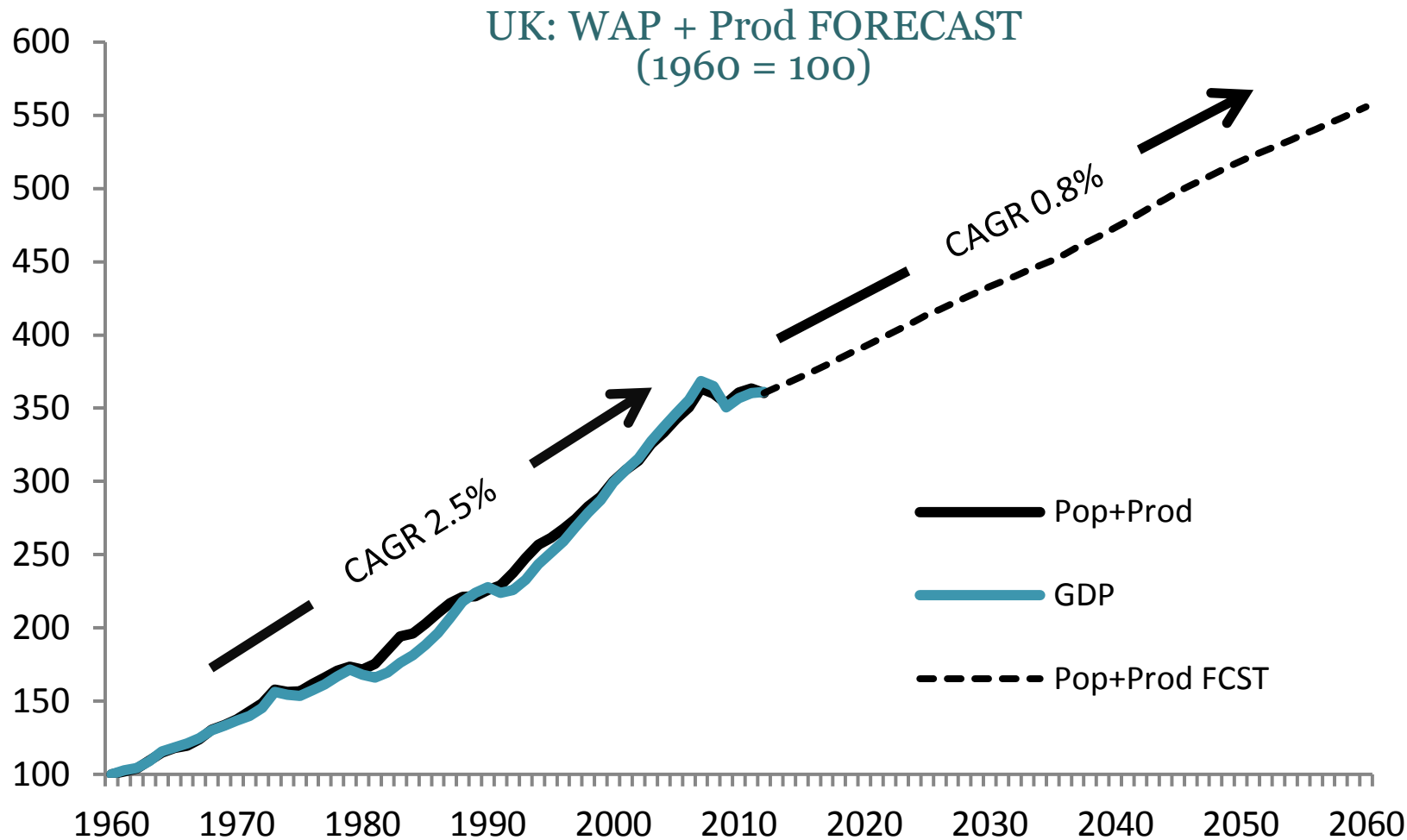
Source: ONS, UN Population Database

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# UK – Working Age Population + Productivity FORECAST



Source: ONS, UN Population Database

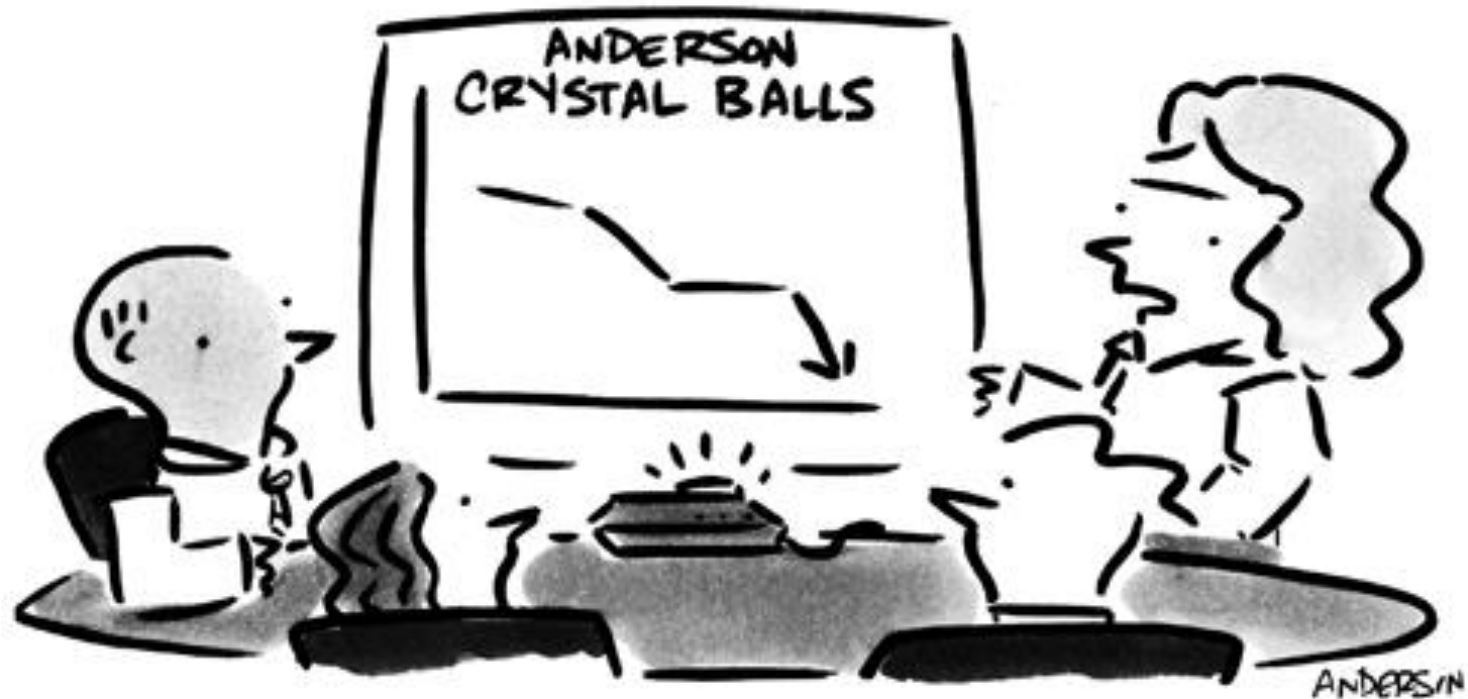
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# The demographic future

- Plan on retiring later
- Drive up productivity
- Get more people working productively
- Embrace agility
- Accept declining living standards



# 2016 Predictions



"Seriously?! No one saw this coming?!"

# Future Trends – 2015

- UK wages are set to rise in 2015.
- UK interest rates remain at historic lows.
- UK infrastructure change in government raises the possibility of a cancellation of the HS2.
- Euro zone quantitative easing is coming.
- Europe will avoid deflation, but only technically.



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# Future Trends – beyond 2015

- Social media will drive public sector reform.
- Fiscal consolidation will eventually raise questions over spending priorities.
- Troubles in the Euro Zone are far from over.
- There will emerge a modern day “failed developed nation”, an Argentina for the 21st century.
- Government debt ceases to be risk free.

# 2016 Predictions





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# Future Trends – Parameters

- Predictions should range across a wide number of areas.
- Predictions look to immediate future (2016) and longer term (5-10 years).
- Predictions should not be wishful thinking.
- Reversion to mean is a strong driver of trends.
- Consumers are ultimately self interested.



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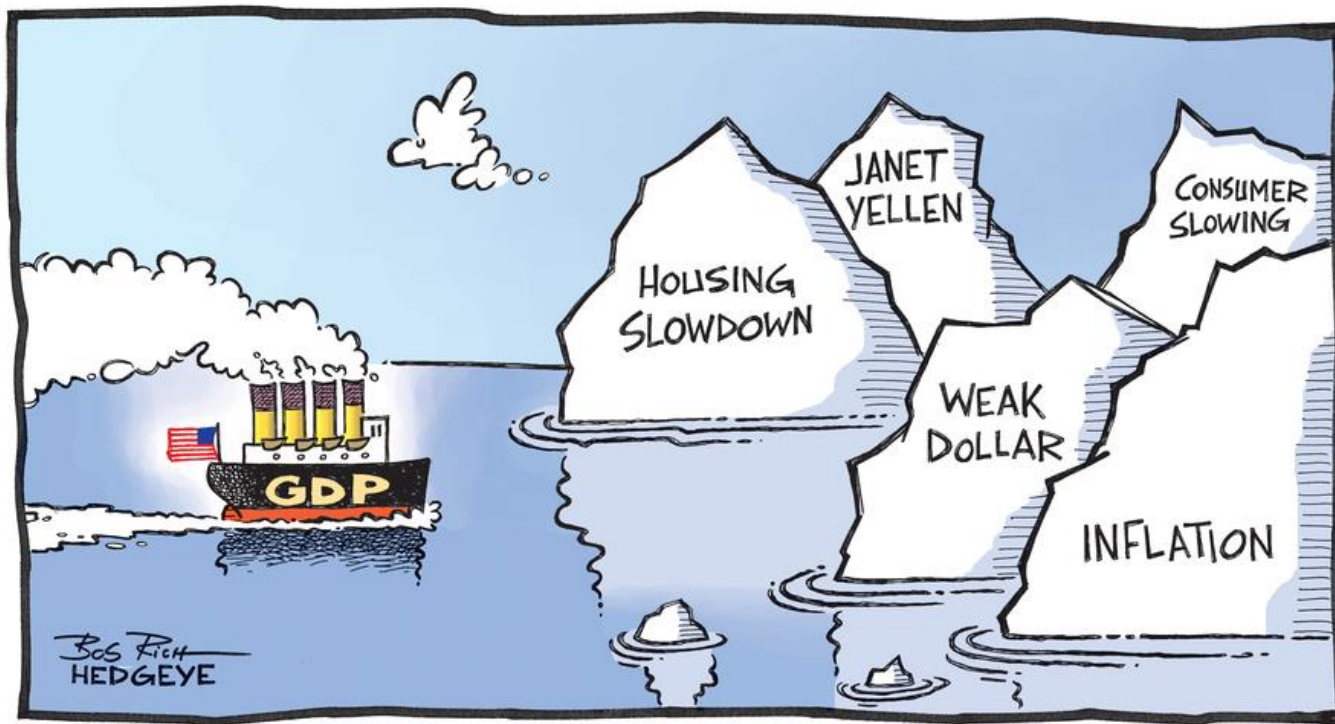
# Future Trends – 2016

- UK interest rates will finally start to rise.
- UK corporate profits are near their peak.
- UK productivity is set to improve.
- Talent wars are going to intensify.
- The southern Euro-zone remains mired in recession.



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# Long Term Predictions





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# Future Trends – beyond 2016

- Wealth taxes prove irresistible
- Pretty Cities prosper

# Questions

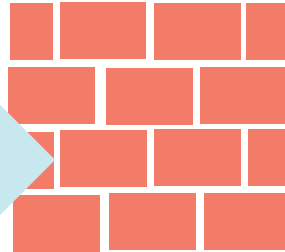




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# Regulation

What do politicians and regulators want to stop?



What do politicians and regulators want to guide?

What do politicians and regulators want to enable?

# Education and Skills

## Macro Pressure

- Age of intellectual capital
- Rewards will disproportionately accrue to education
- Agility is key to long term success

## Technical Education

- Train graduates for jobs that don't yet exist
- Revolution in delivery of education
- Transferability of skills is key
- Work experience?

## Local Skills

- Labour mobility is key
- Long term forecasting/anticipating or seeding industries has poor track record
- Can regional skills be made agile enough to be useful?

## Life Long Learning

- Changing career several times over the course of a career is going to be the norm
- How can government enable these necessary transitions?

## Future Trends

- Technological innovation will change employment expectations
  - Premium on Agility
  - Business will lead politics



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