



BANK OF ENGLAND

The Health, Wealth and Happiness of Nations

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Adam Smith Annual Lecture

Pembroke College, University of Cambridge

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Smith Re-Imagined

My initial plan...

- Smith (1776) – “the book for the 20th century”: self-interest, specialisation, rationality
- Smith (1759) – “the book for the 21st century”: mutual interest, cooperation, emotion.
- There is more that unites than divides Smith '76 and Smith '59.

So instead:

- Smith re-imagined/re-purposed for 21st century
- A sketch model of “Community Capitalism”



Adam Smith (1776)

“It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest.”

Smith (Wealth of Nations (1776))



Adam Smith (1776)

“It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest.”

Smith (Wealth of Nations (1776))

“No society can surely be flourishing and happy, of which the far greater part of the members are poor and miserable.”

Smith (Wealth of Nations (1776))



Plan

- Enlightenment then
- Six Pillars of Success
- Enlightenment Now?
- The New Pillars of Success
 - “Community Capitalism”



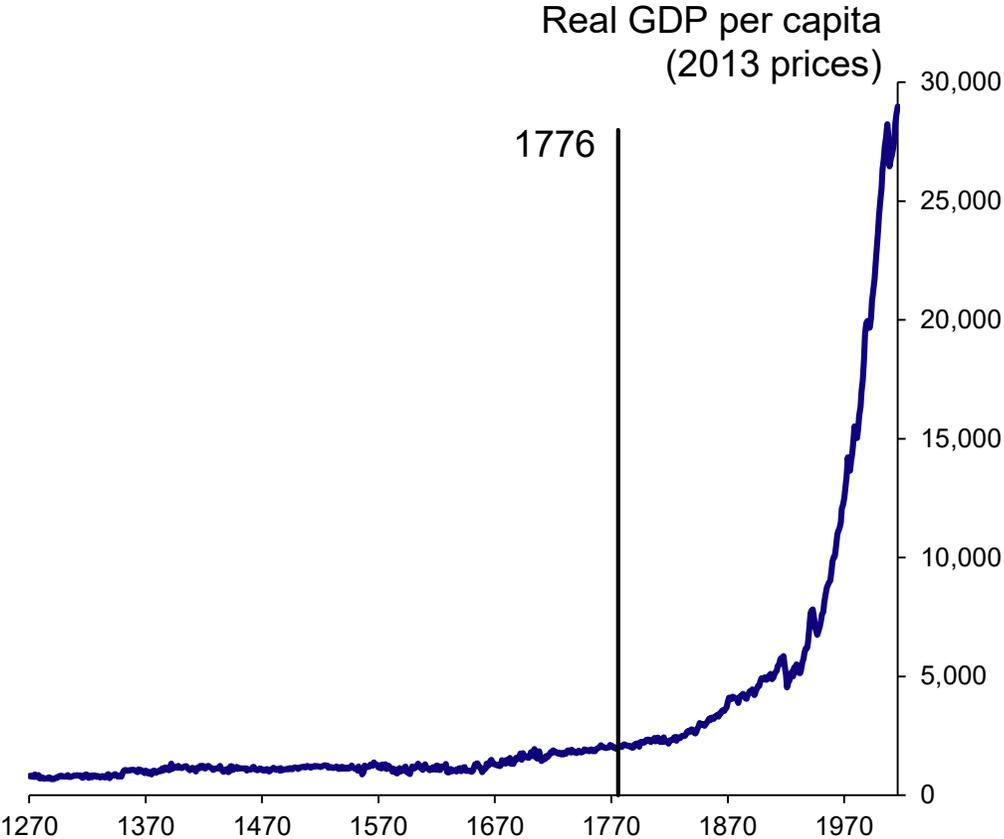
Enlightenment Then

- Smith provided the intellectual foundations of the Industrial Revolution
- Industry, specialisation, self-interest, market prices, market forces
- The ‘invisible hand’ in theory became the ‘market economy’ in practice
- “Golden Era” for global wealth, health and happiness
- “Age of Enlightenment”



Wealth

Income

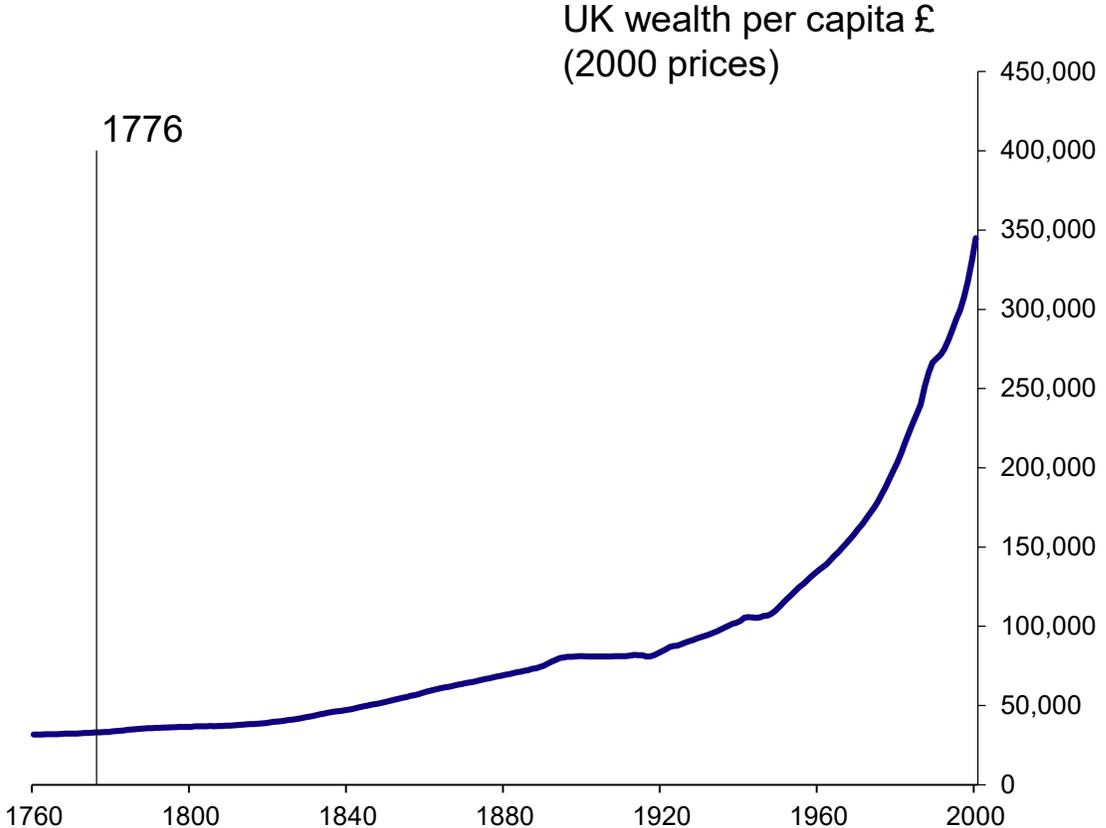


Sources: Bank of England Millennium of Data



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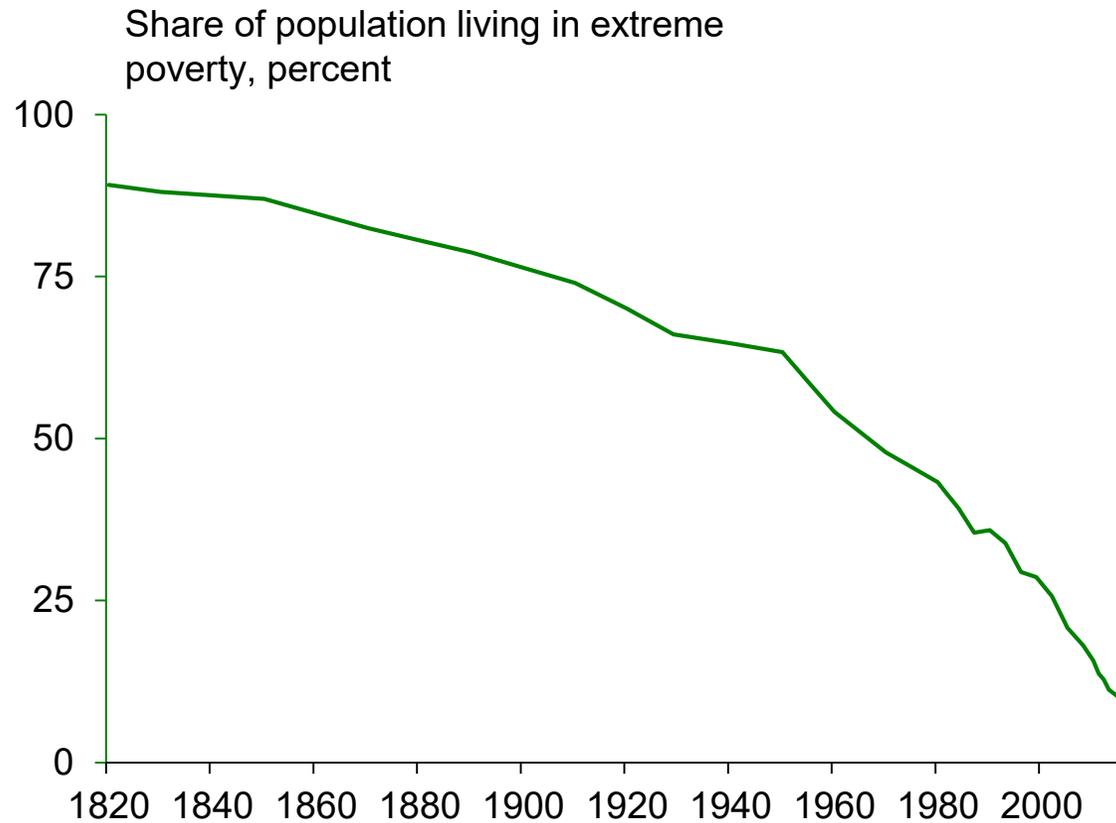
Wealth



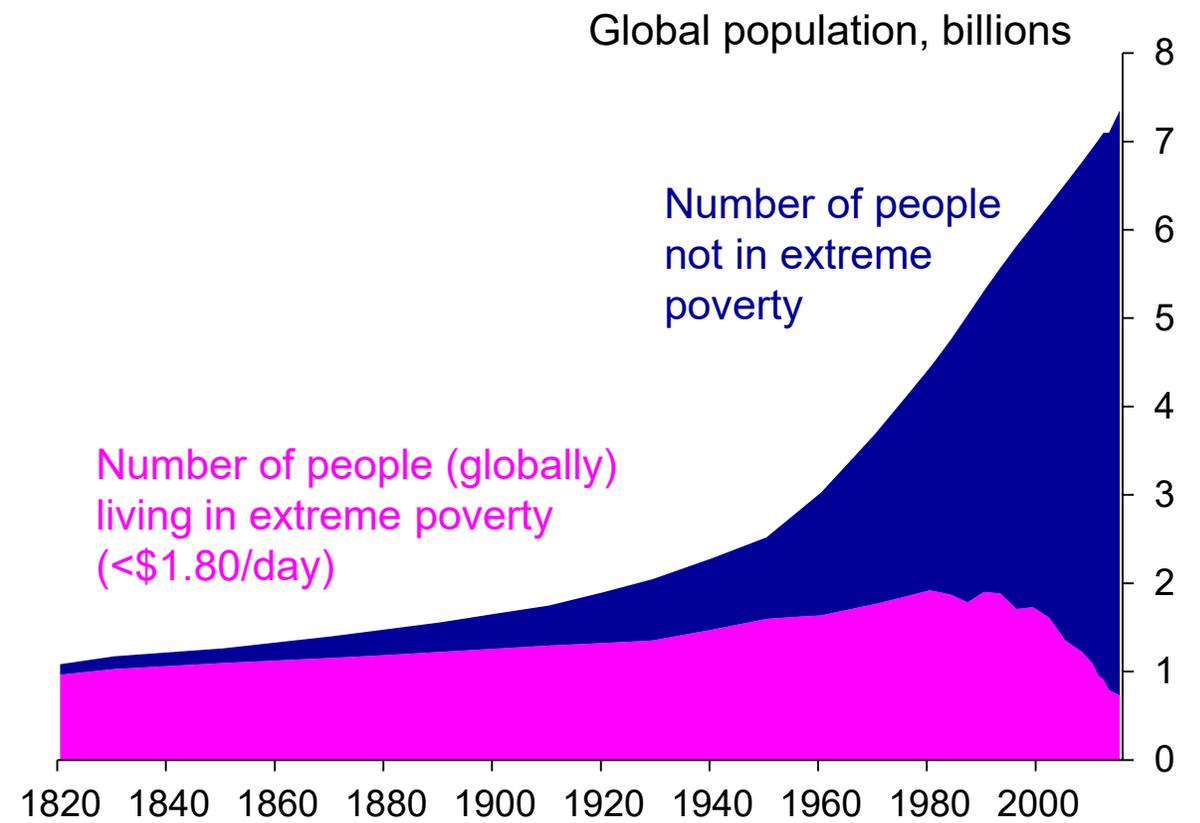
Source: McLaughlin, E. et al. (2014) 'Historical wealth accounts for Britain: progress and puzzles in measuring the sustainability of economic growth'

Wealth

Poverty rate



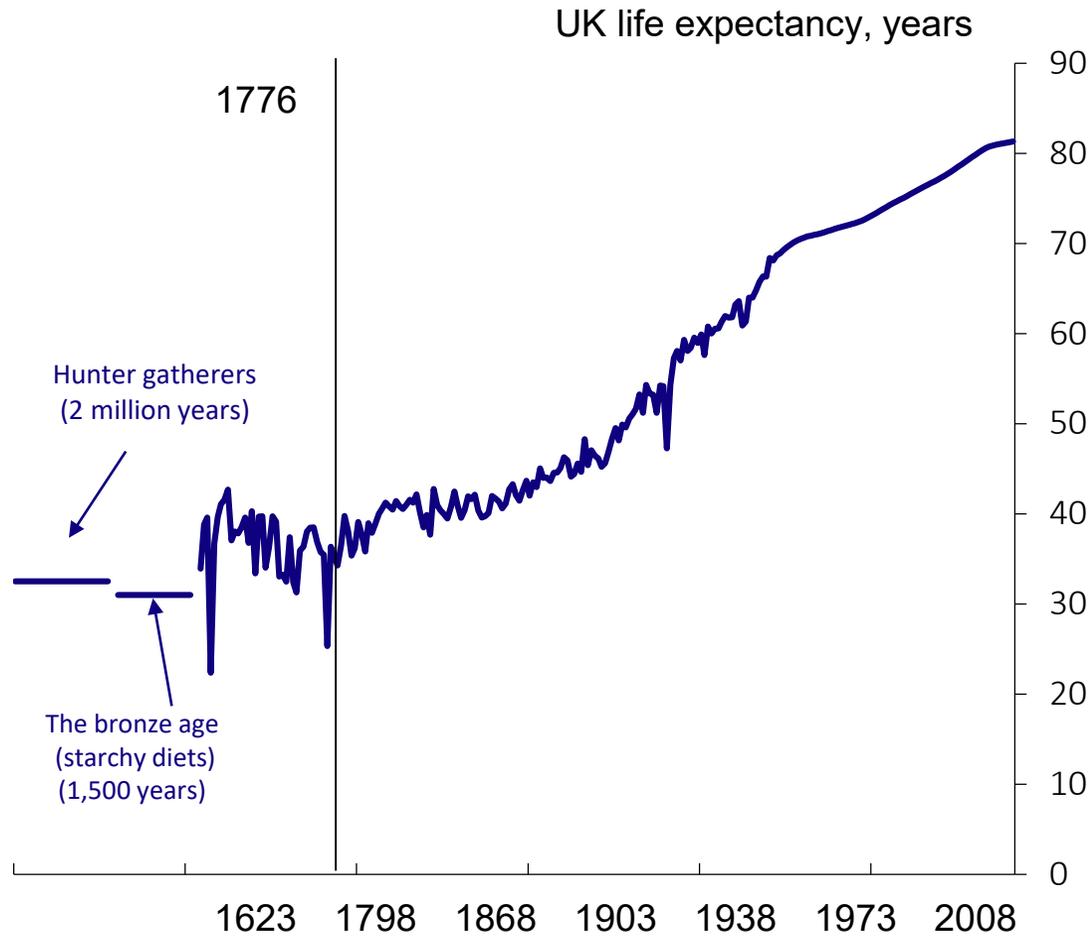
People in poverty



Sources: Our World in Data, based on data from Bourguignon & Morrisson (1820-1992), and the World Bank (1981-2015)



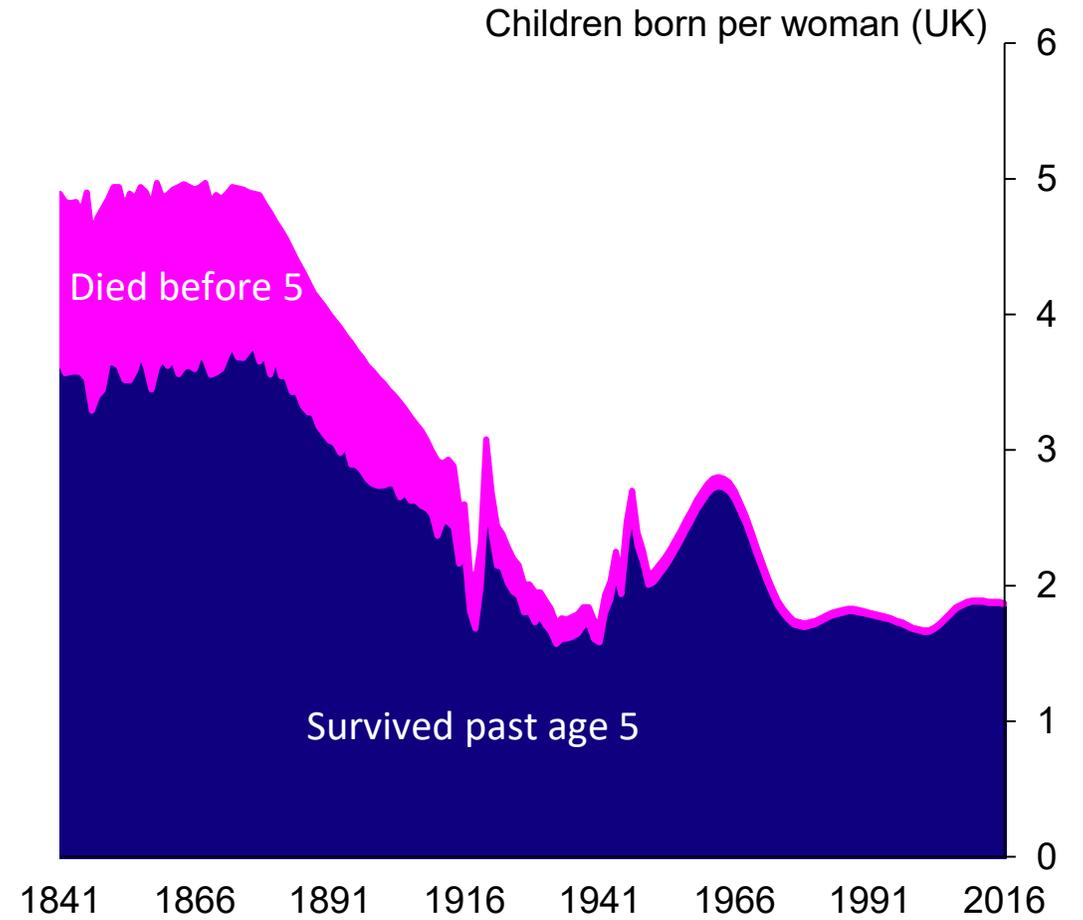
Health



Sources: Our World in Data and *Enlightenment Now*

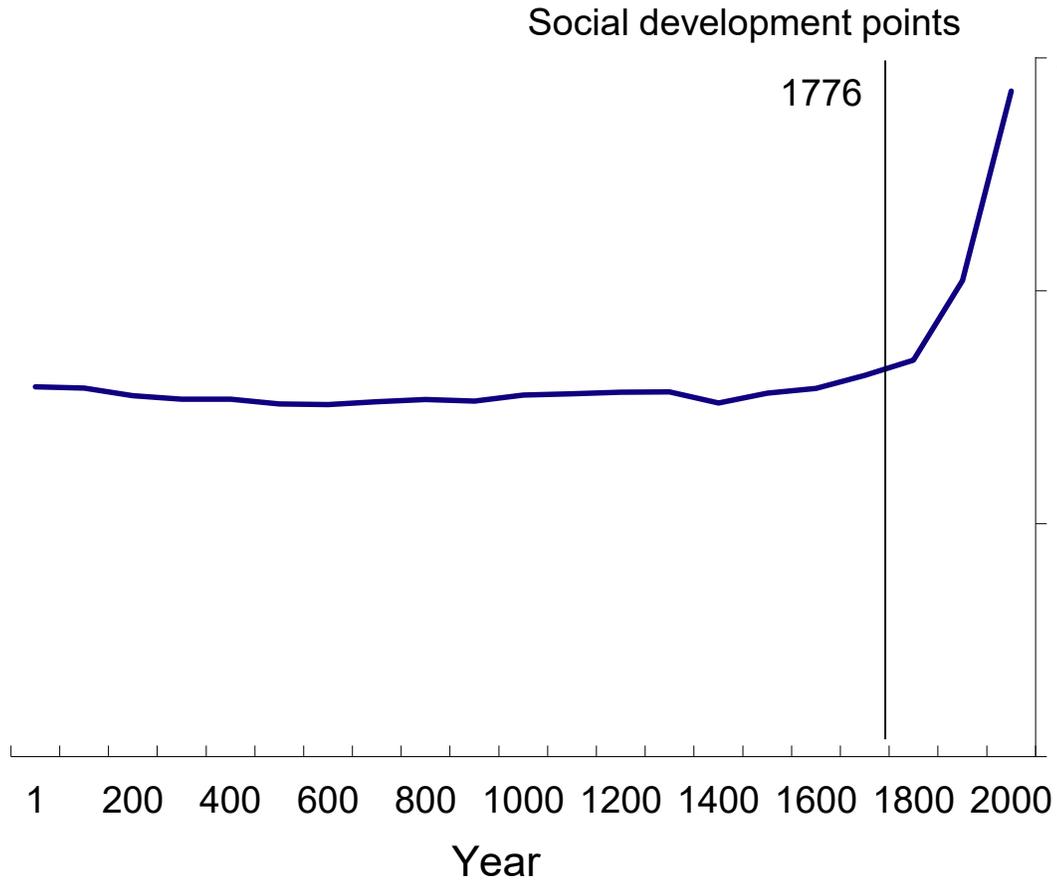


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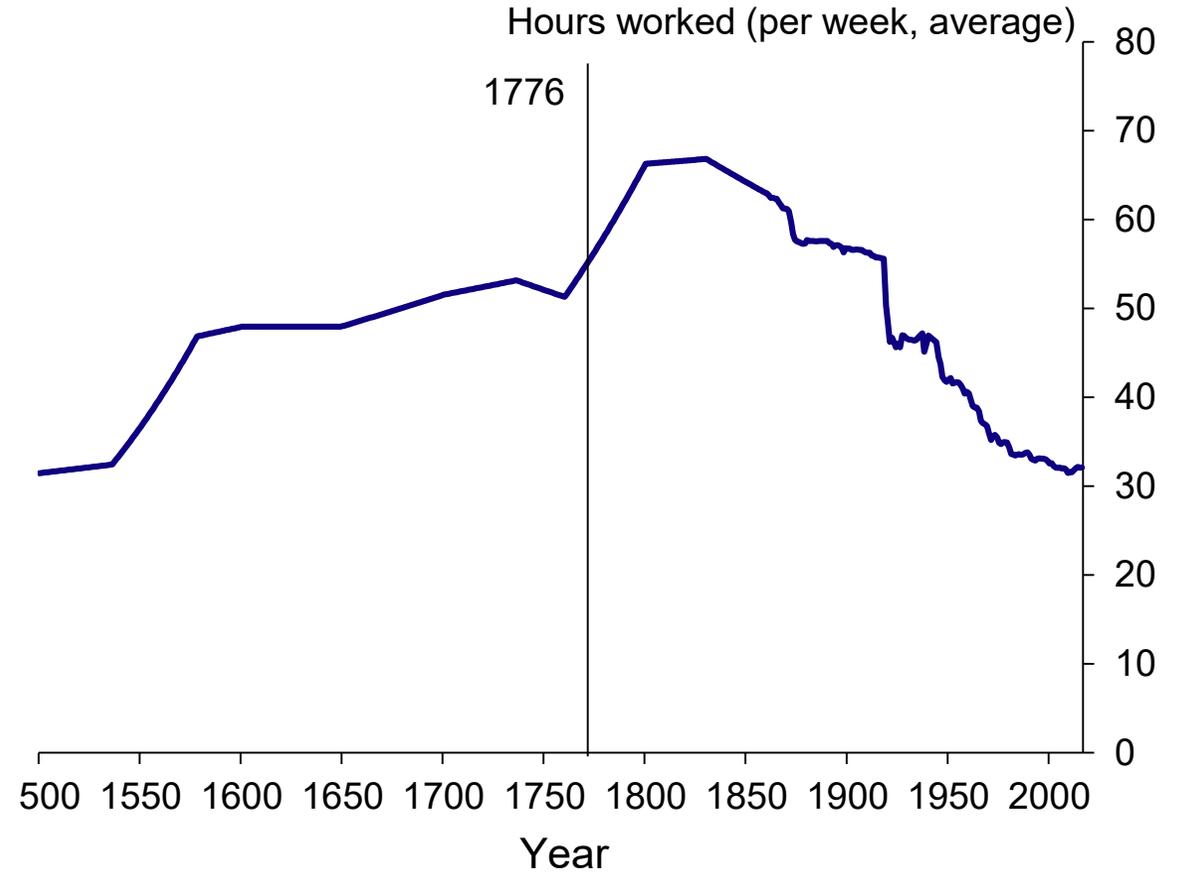


Sources: Our World in Data calculations, based on *Gapminder* data

Happiness



Source: Morris (2010, 2011).

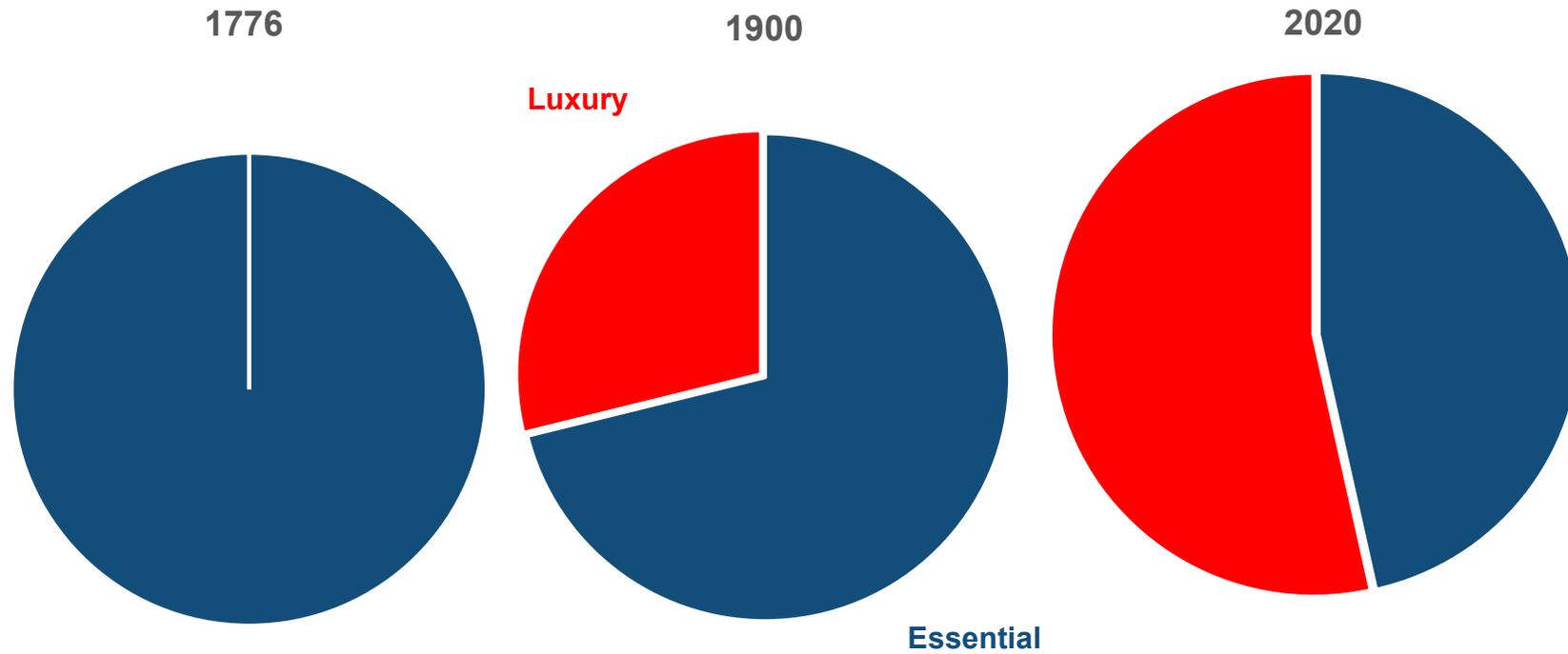


Sources: Bank of England Millennium of Data



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The Consumption Basket



Sources: Bank calculations based on data from Feinstein (1998) for 1788, Feinstein (1991) for 1900, and ONS for 2020.



Political Economy

Percentage of years in which the 'Great Powers' fought one another

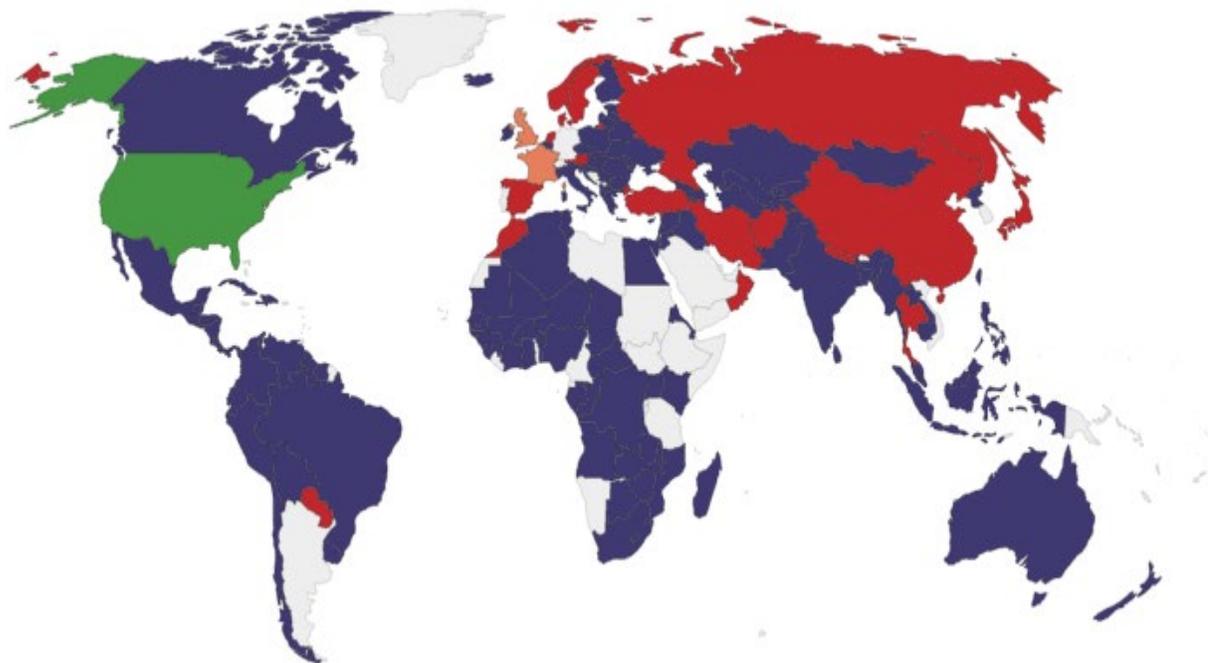


Sources: Levy (1992) and Bank calculations.

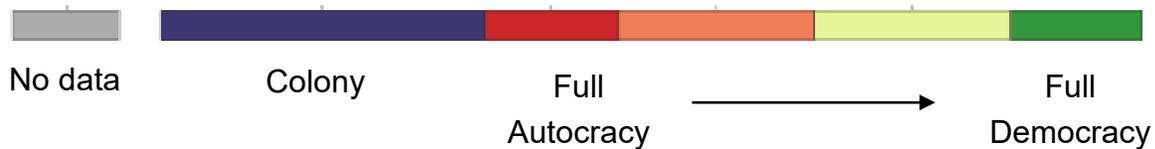
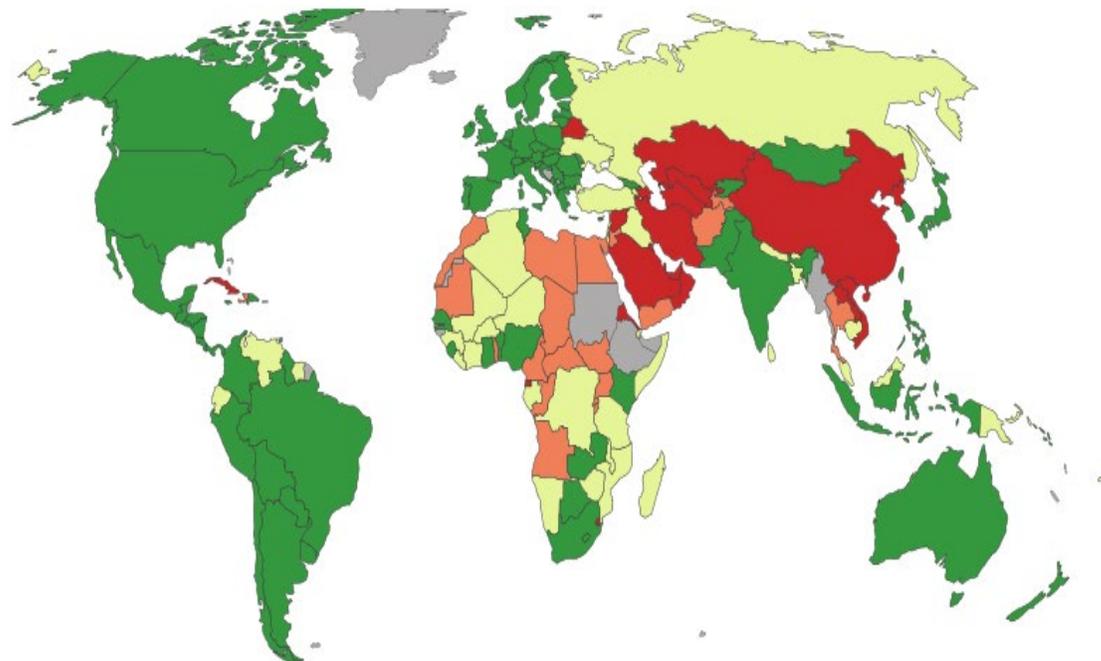


Political Economy

1816



2015



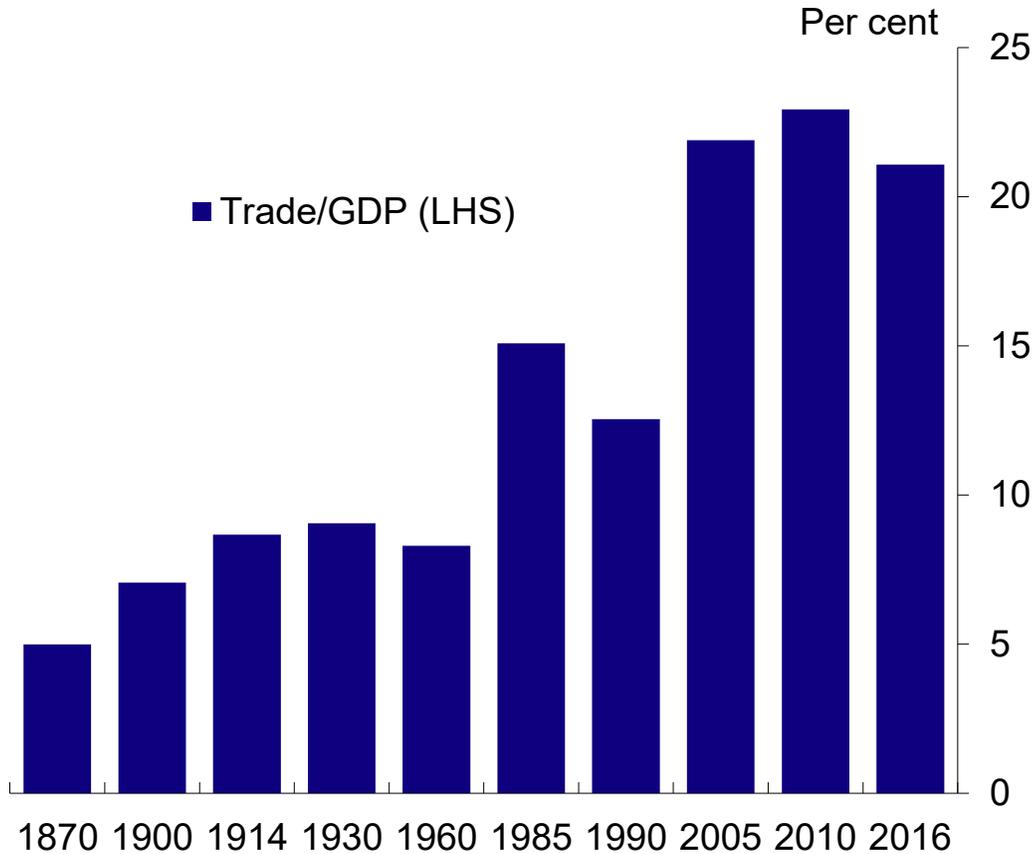
Source: Our World In Data, Wimmer and Min (2006), Centre for Systemic Peace



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Globalisation and Inequality

World goods trade/GDP

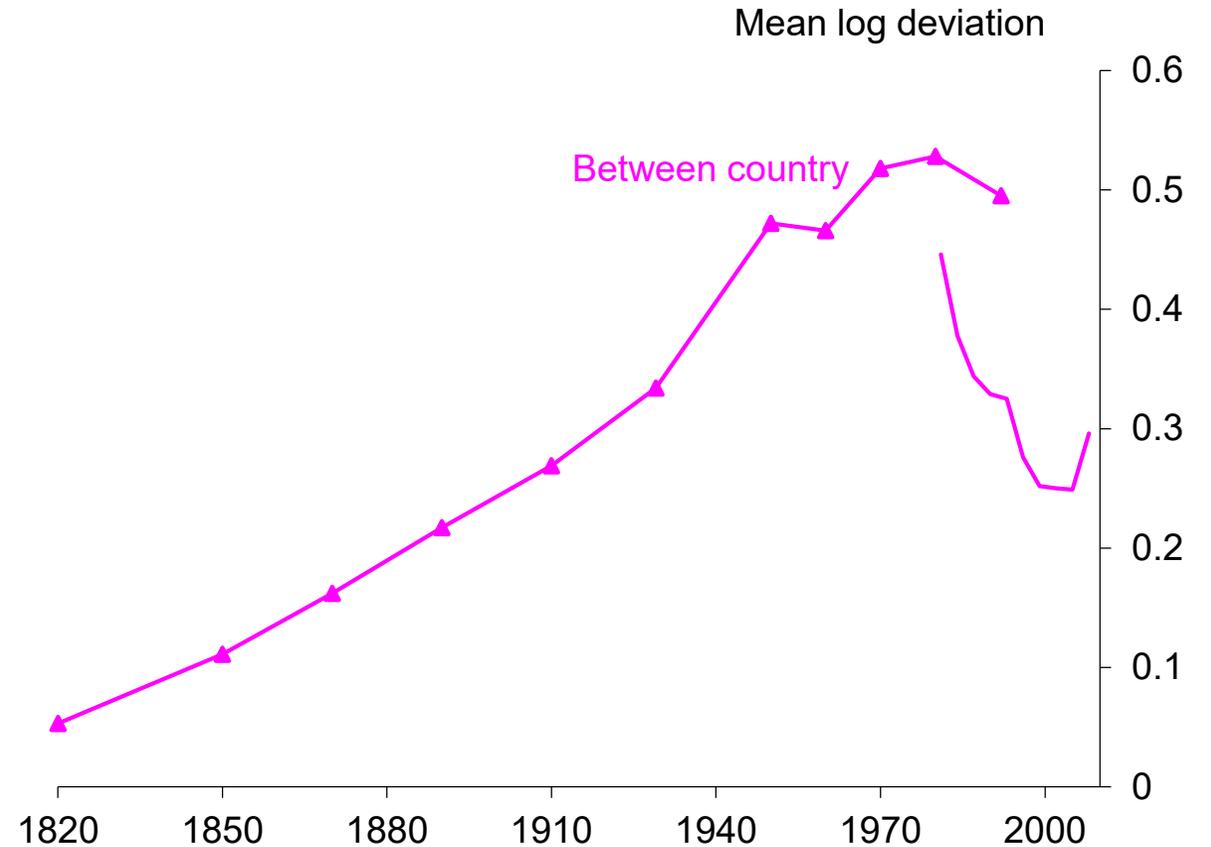


Source: World Bank, IMF WEO, UNCTAD and Bank of England calculations



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Inequality between countries

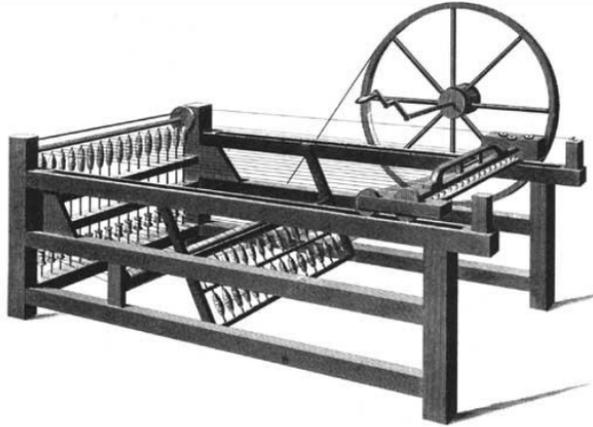


Sources: Bourguignon and Morrisson (2002) for 1820-1992, and Ravallion and Chen (2012) for 1981-2008

What Happened?

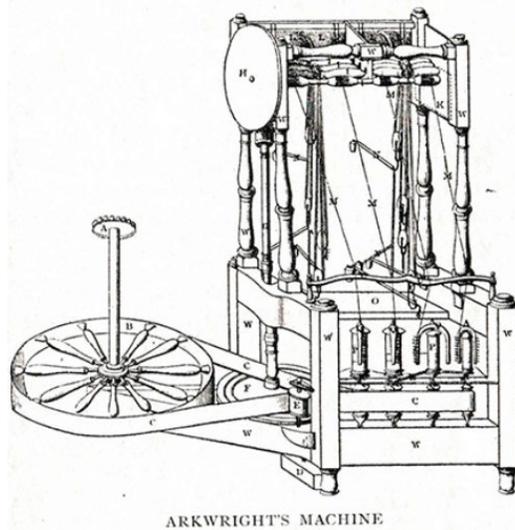
- Neo-classical story: *private innovation* inspires an (industrial) revolution

Spinning Jenny



Hargreaves (1764)

Water Frame



Arkwright (1769)

Steam Engine



Watt (1775)

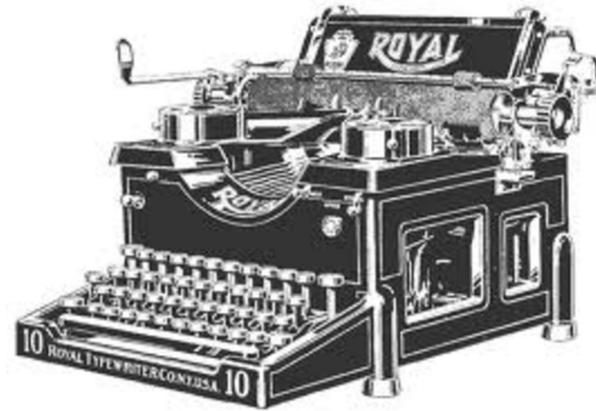


Second Industrial Revolution

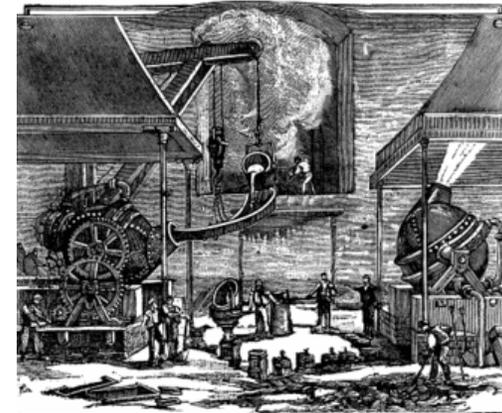
Telephone



Typewriter



Steel production



THE BESSEMER PROCESS OF STEEL MAKING.



Third Industrial Revolution

Internet



**Smart
phone**



**Wind and
solar
power**



Problems with this Neo-classical Story

- How do we explain the inflection point?
 - The long history of innovation
- How do we explain the patterns of growth?
 - The long history of booms and busts



Timeline of Innovation

12th C



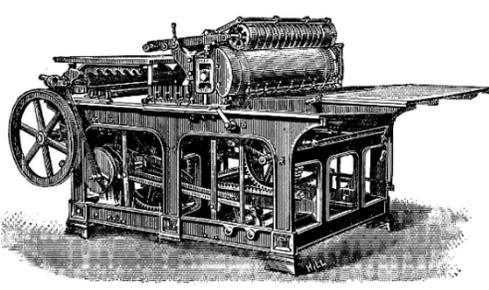
13th C



14th C



15th C



16th C



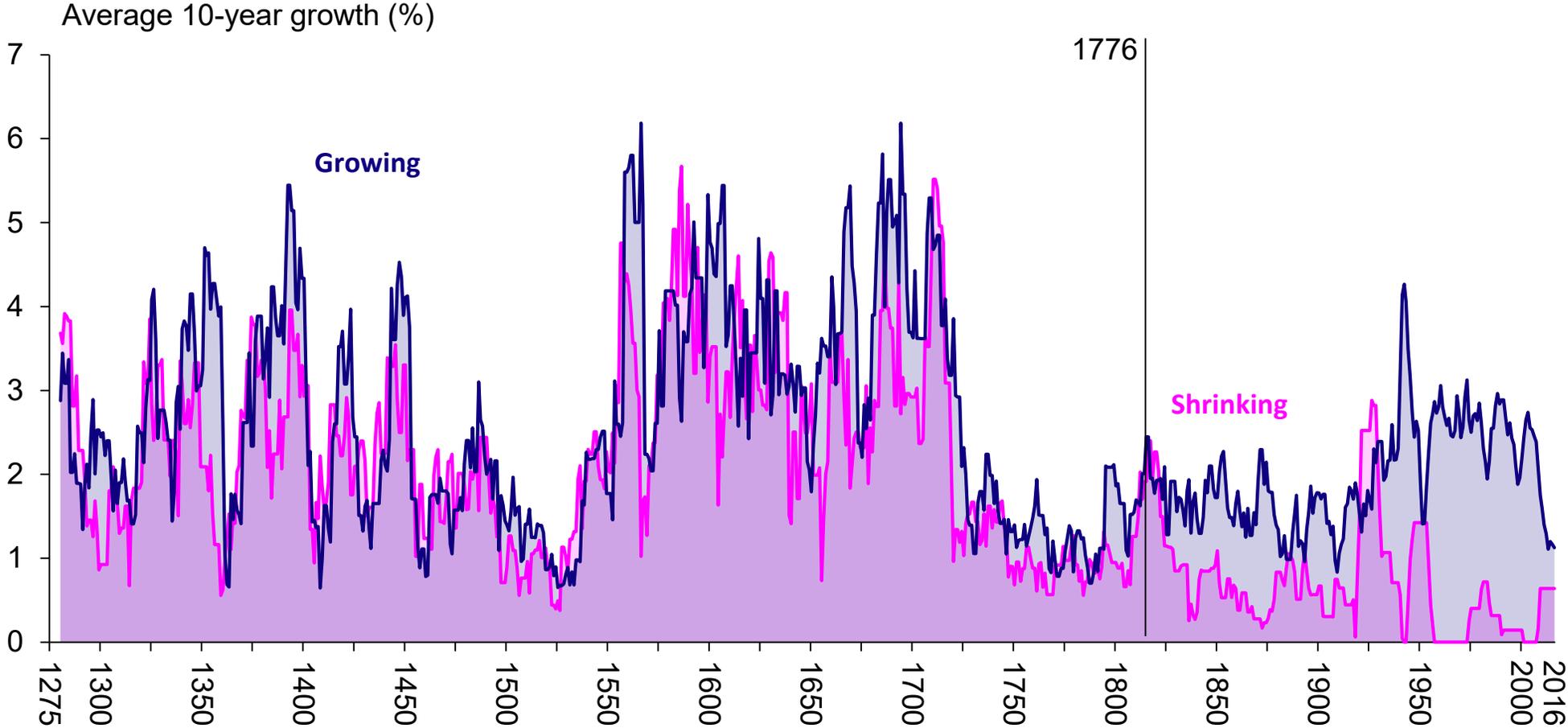
17th C



18th C



Long-Run Growth Decomposed



Sources: Broadberry and Wallis (2017) and Bank calculations



Six Pillars of Success

- *Private, public and third* sectors – mutually-supporting
- *Institutions* as much as innovation explained the Golden Era
 - Public limited company
 - Limited liability banking
 - Measurement systems
 - Public education
 - Public infrastructure
 - Civil society



Public Limited Company

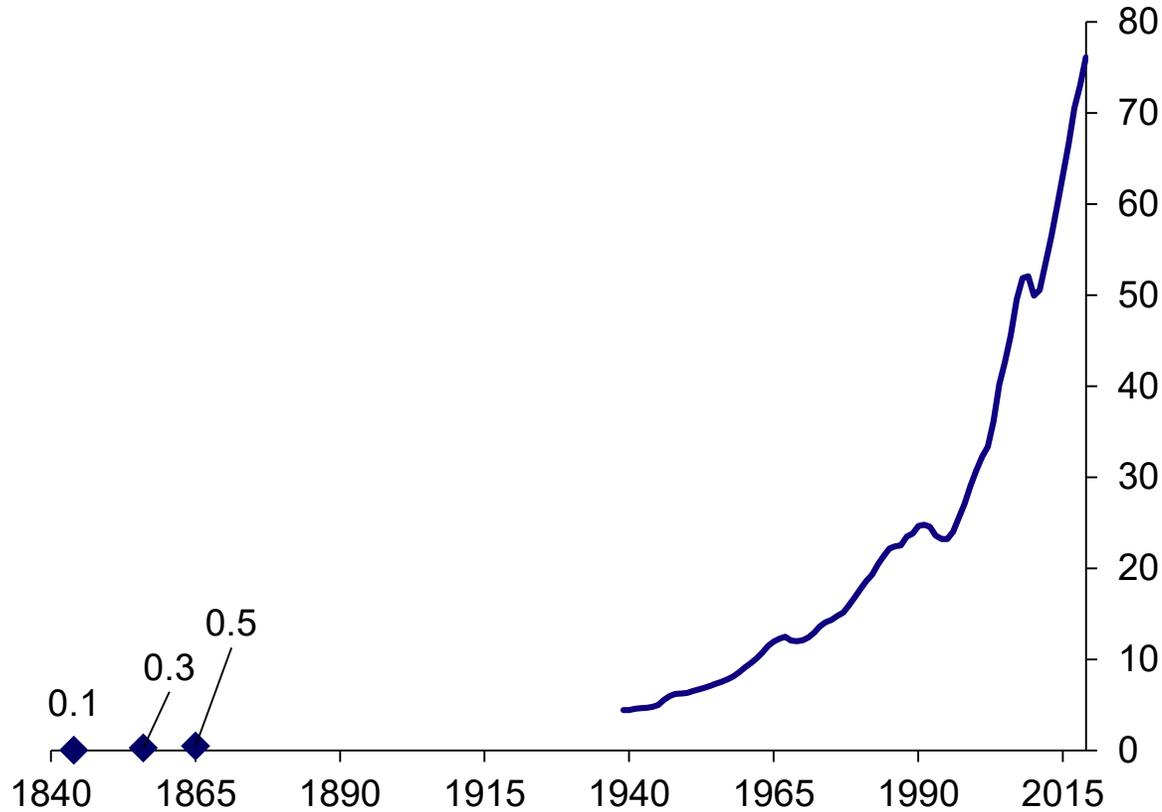
- Oldest company in the world: Aberdeen Harbour Board (1136)
- Early notions of incorporated businesses from 17th century (including the Bank of England)
- Limited liability introduced in Continental Europe from 17th century onwards
- UK: Limited Liability Act 1855
- Why? Support the mass-flourishing of companies through mass-shareholding
- Gradual emergence of ‘shareholder primacy’ as company objective
- Embedded in UK Companies Act 2006 (section 172).



The Rise of the PLC

Companies in the UK

Limited companies per thousand people

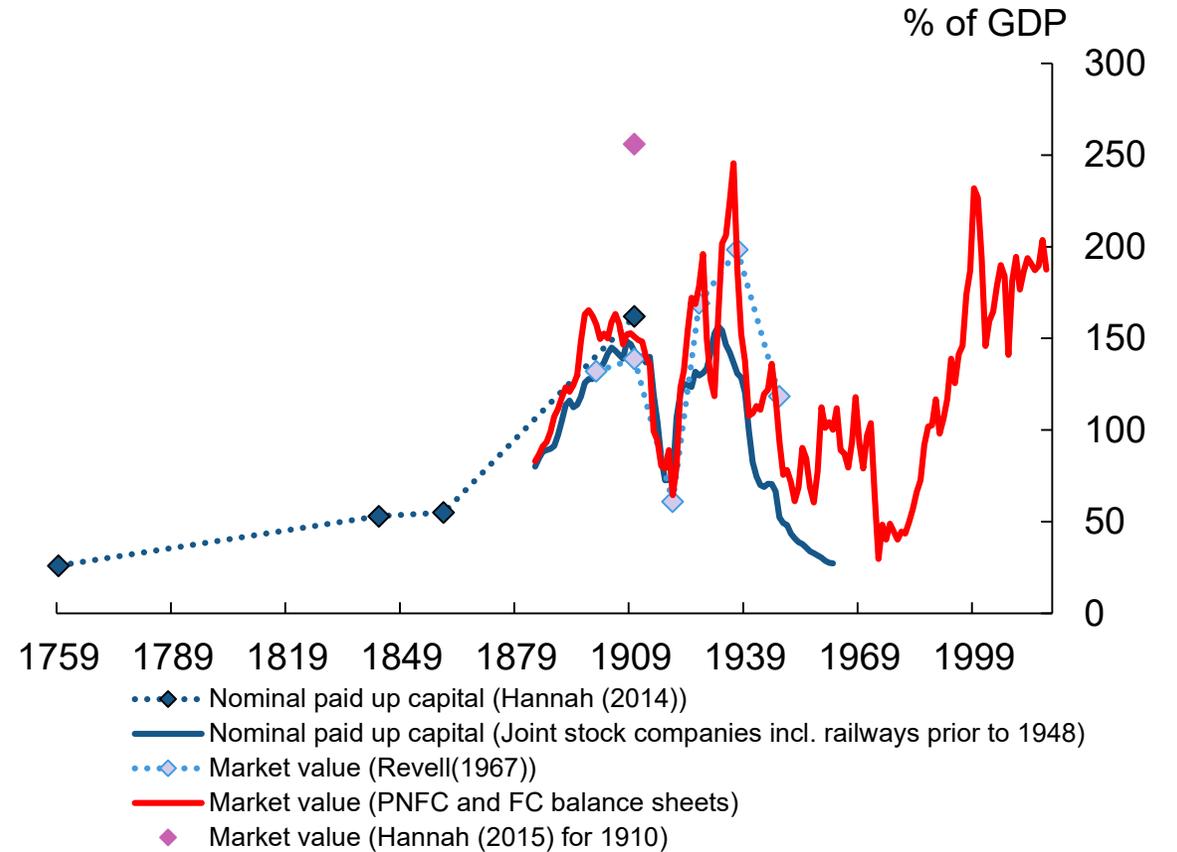


Sources: Company data from Companies House (1939-2018) and Levy (2014) for 1844-1865. Population data from Bank of England Millennium of Data.



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Corporate equity



- ◆ Nominal paid up capital (Hannah (2014))
- Nominal paid up capital (Joint stock companies incl. railways prior to 1948)
- ◆ Market value (Revell(1967))
- Market value (PNFC and FC balance sheets)
- ◆ Market value (Hannah (2015) for 1910)

Sources: Revell (1967), Solomou and Weale (1997), Hannah (2014, 2015), Thomas and Dimsdale (2017), ONS and Bank calculations.

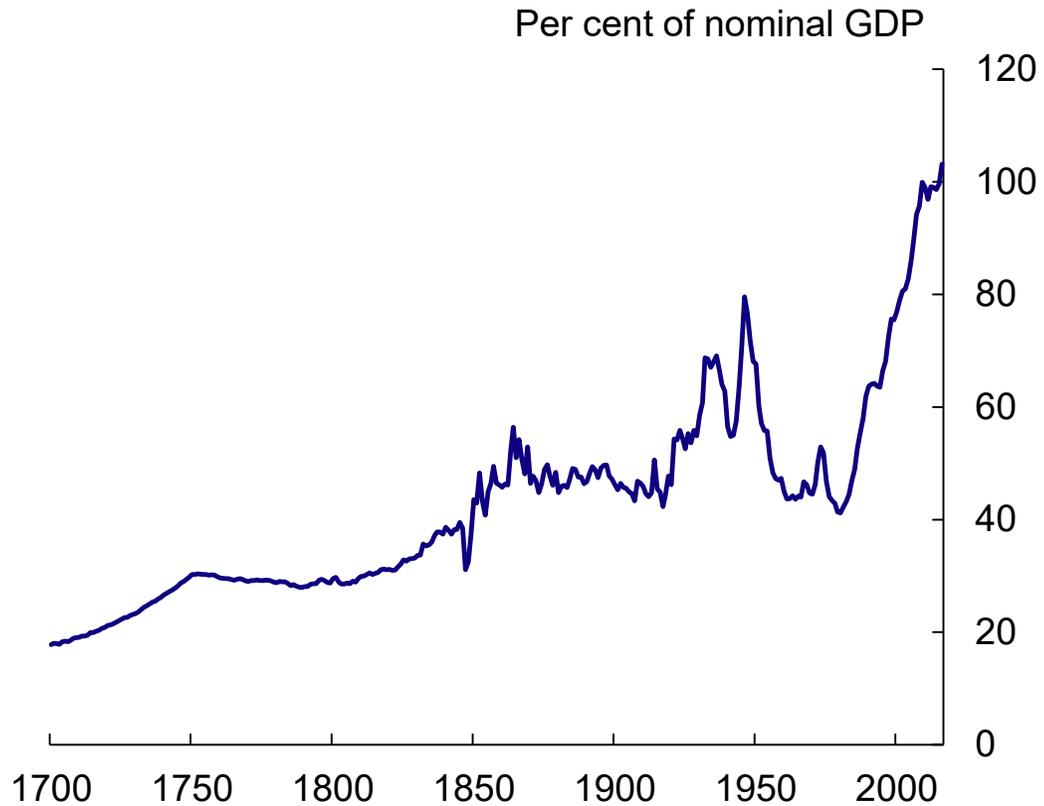
Limited Liability Banking

- Followed similar path to limited liability companies – but slower
- Until 1826, number of partners in a bank limited to six.
- Limited liability in banking introduced in 1858 – but not taken up
- City of Glasgow Bank (1878) – “widows and orphans” bankrupted
- Companies Act (1879) brought in “reserve liability” – double/treble liability
- Gradually eroded to single liability in 20th century



The Rise of Banking

Broad money (% of GDP)

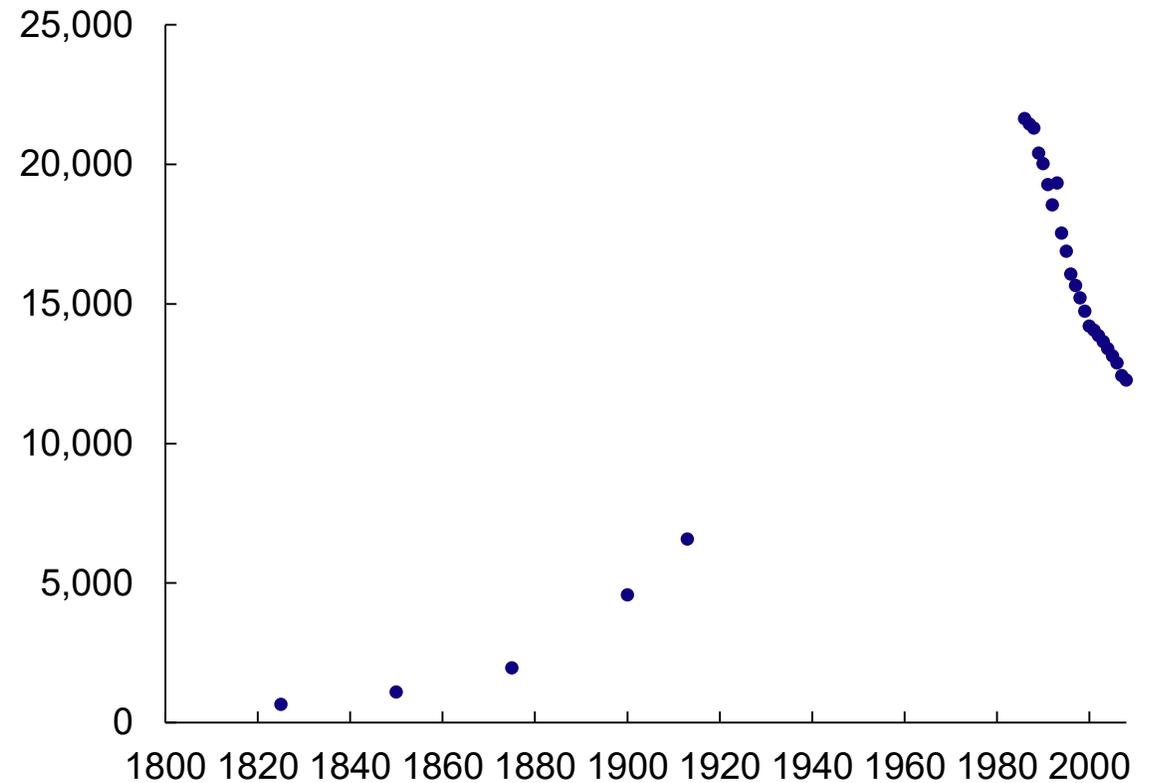


Source: Bank of England Millennium of Data.



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Number of bank branches



Sources: Collins, M., & Baker, M. (2003) for 1850-1913 and House of Commons Library (2020) for 1986-2019

Measurement Systems

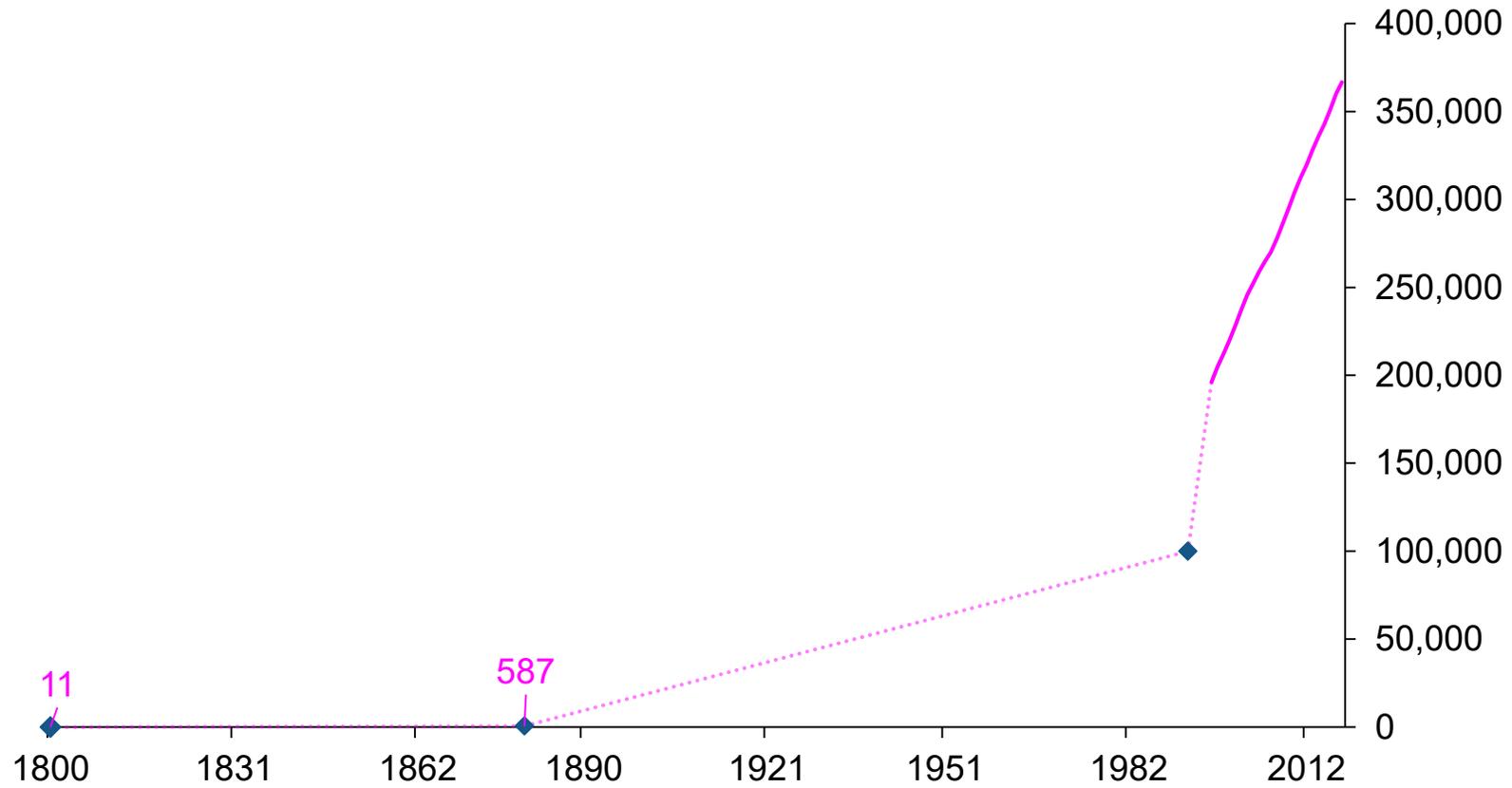
- **Companies**

- 16th/17th century – double-entry book-keeping arrives in UK
- Bankruptcy Act 1831 – accountants to play role in winding-up
- 1853: Institute of Accountants in Edinburgh
- 1862 – legal requirements to register and file accounts
- 1939 – US Committee on Accounting Procedures (CAP)
- 1942 – First formal recommendations by ICAEW
- 1970 – Accounting Standards Steering Committee



The Rise of the Auditor

Number of accountants



Sources: Haldane (2010), ICAEW (2012) and Financial Reporting Council (2019)



Measurement Systems

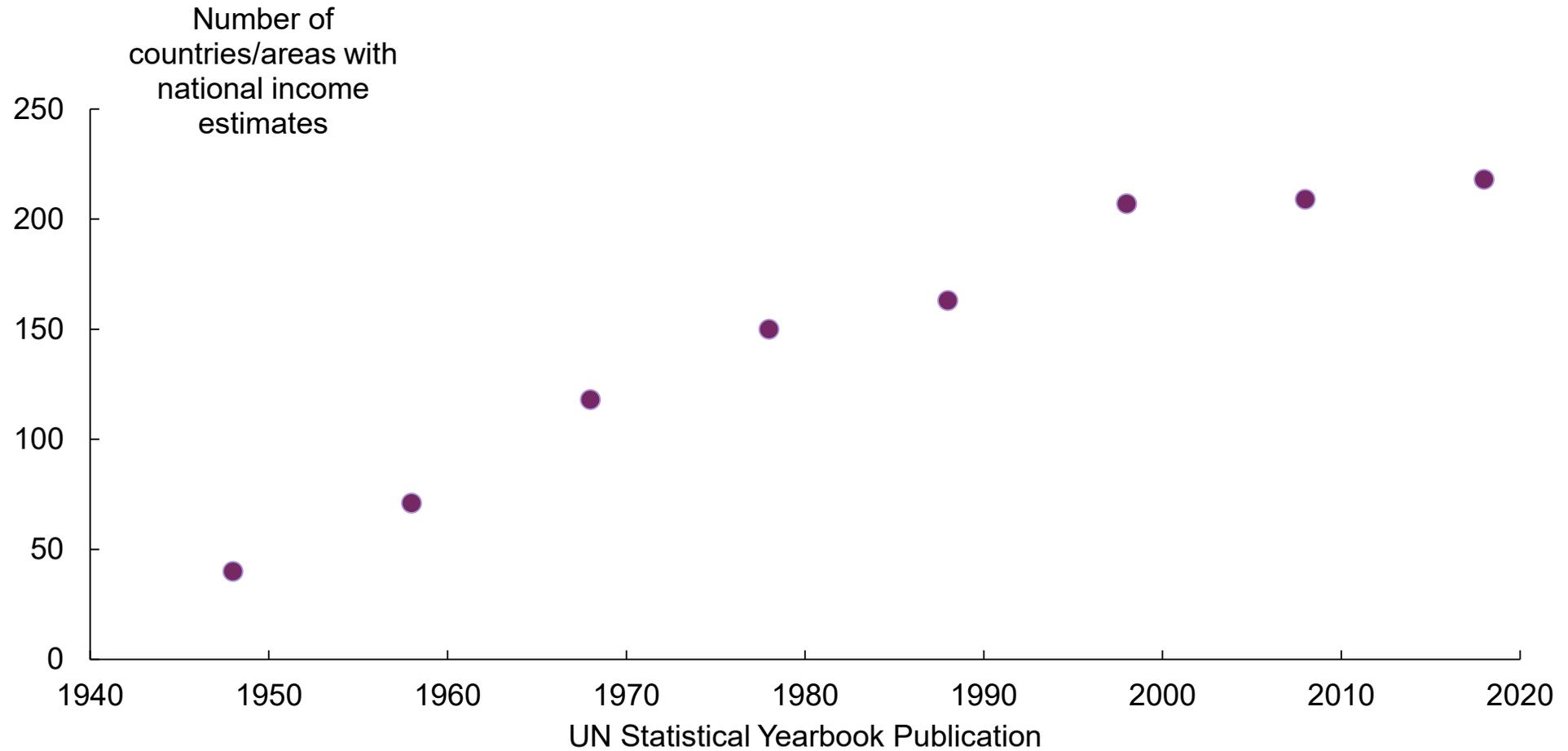
- **Economies**

- 1068 – Domesday Book
- 1656 – Down Survey of income (William Petty)
- 1791-99 – Statistical Account of Scotland
- 1868 – “National income. The United Kingdom” (Baxter)
- 1932-37 – Clark-Kuznets introduce GDP in the US
- 1941 – Stone-Meade publish first UK GDP



The Rise of GDP

Number of countries with GDP/income estimates in UN statistical accounts



Sources: United Nations and Bank calculations.



Public Education

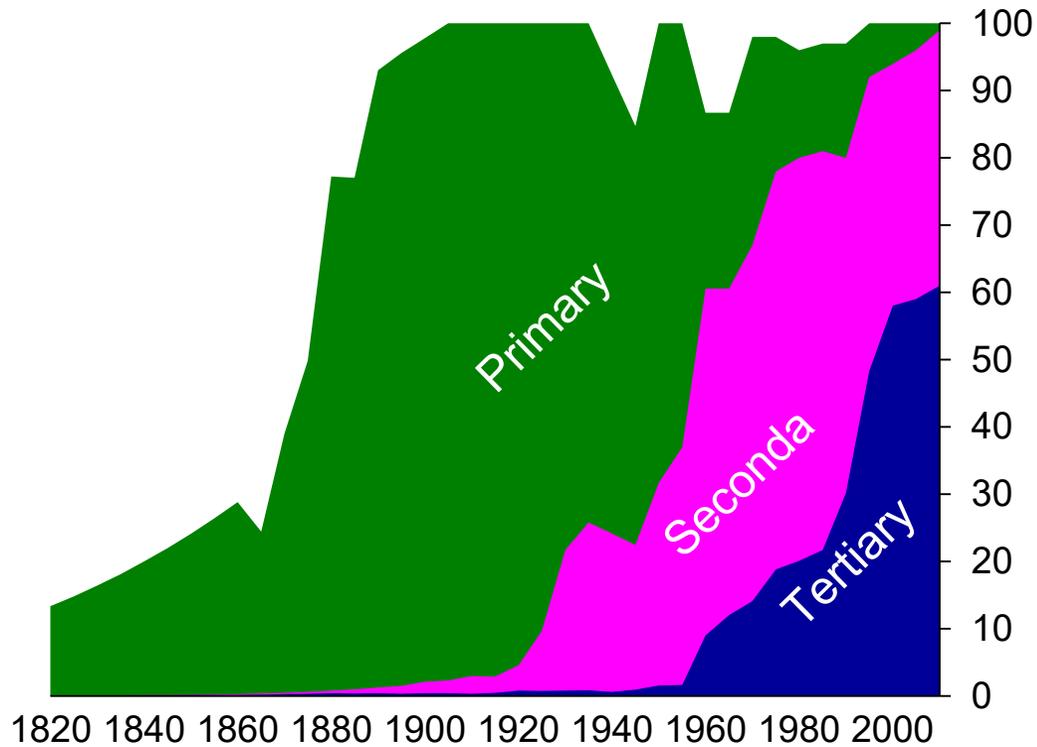
- History of compulsory schooling
 - 5-10 years: 1880
 - -12 years: 1899
 - -14 years: 1918
 - -15 years: 1947
 - -16 years: 1972
- Rise of tertiary education: number of universities
 - Until 19th century 2 English universities (Oxbridge), 5 university colleges in Scotland
 - 20th century: Manchester, Birmingham, Leeds, Bristol etc.
 - Today: 130 universities



The Rise of Public Education

Participation

Enrolment ratios for total population

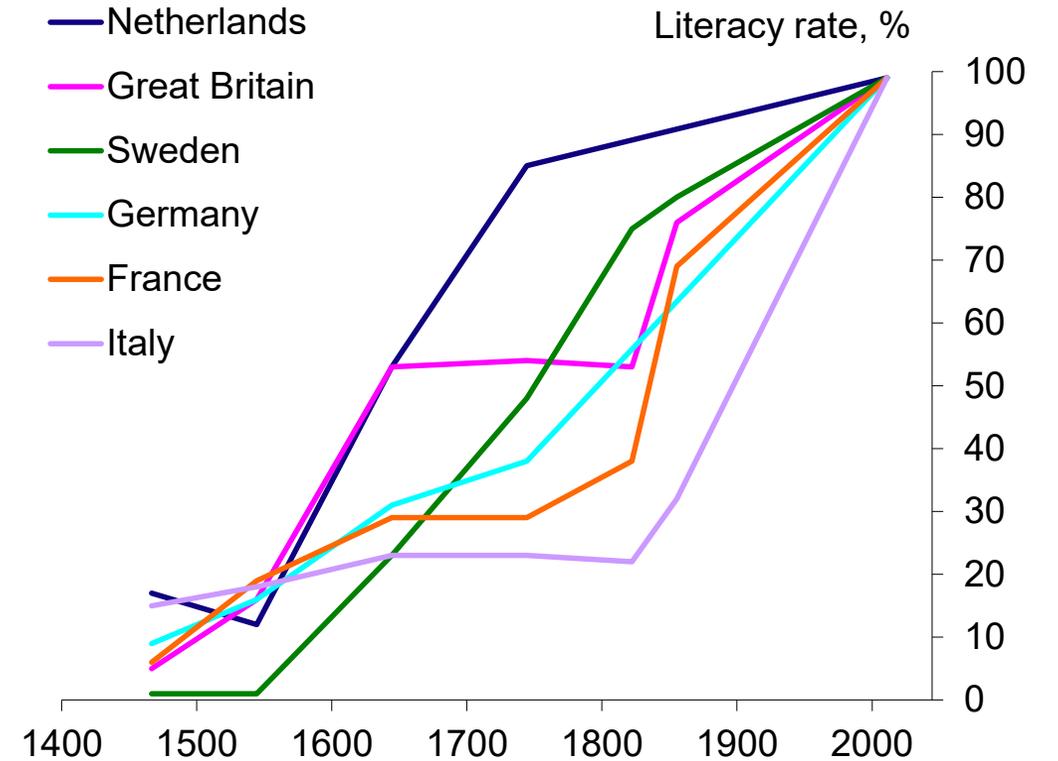


Source: Barro and Lee (2016).



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Enrolment



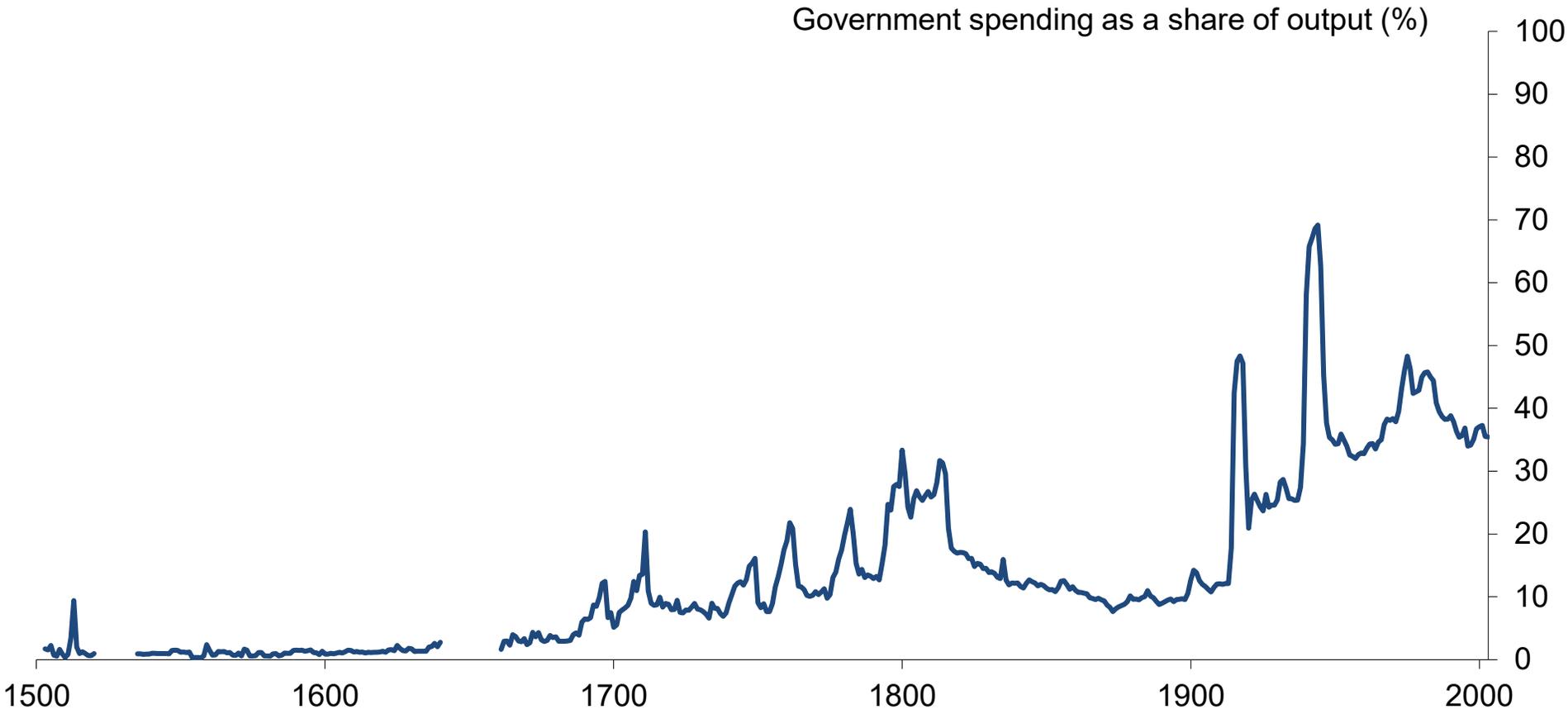
Sources: OurWorldInData.org, based on Buringh and Van Zanden (2009) and Broadberry and O'Rourke (2010).

Public Infrastructure

- Government spending
 - Dramatic expansion in size of state, accompanied with greater share for health, education and welfare
- Road
 - Turnpike Acts (1663, 1695) leading to toll road expansion in 1700s, peaking around 1830s
 - Improvement in quality and quantity of public highways
 - Full public responsibility for road network in Highways Act (1862) and Local Government Act (1888)
- Rail
 - First public railway opened in 1825



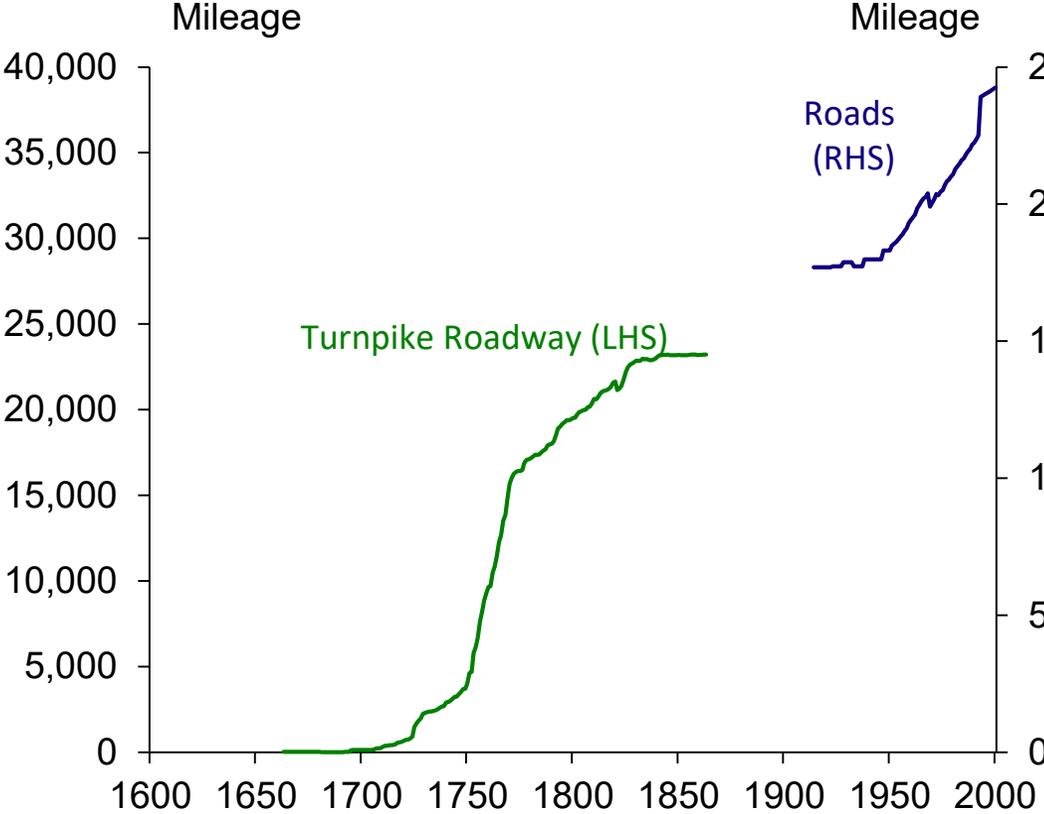
The Rise of Public Spending



Source: Clark (2009).

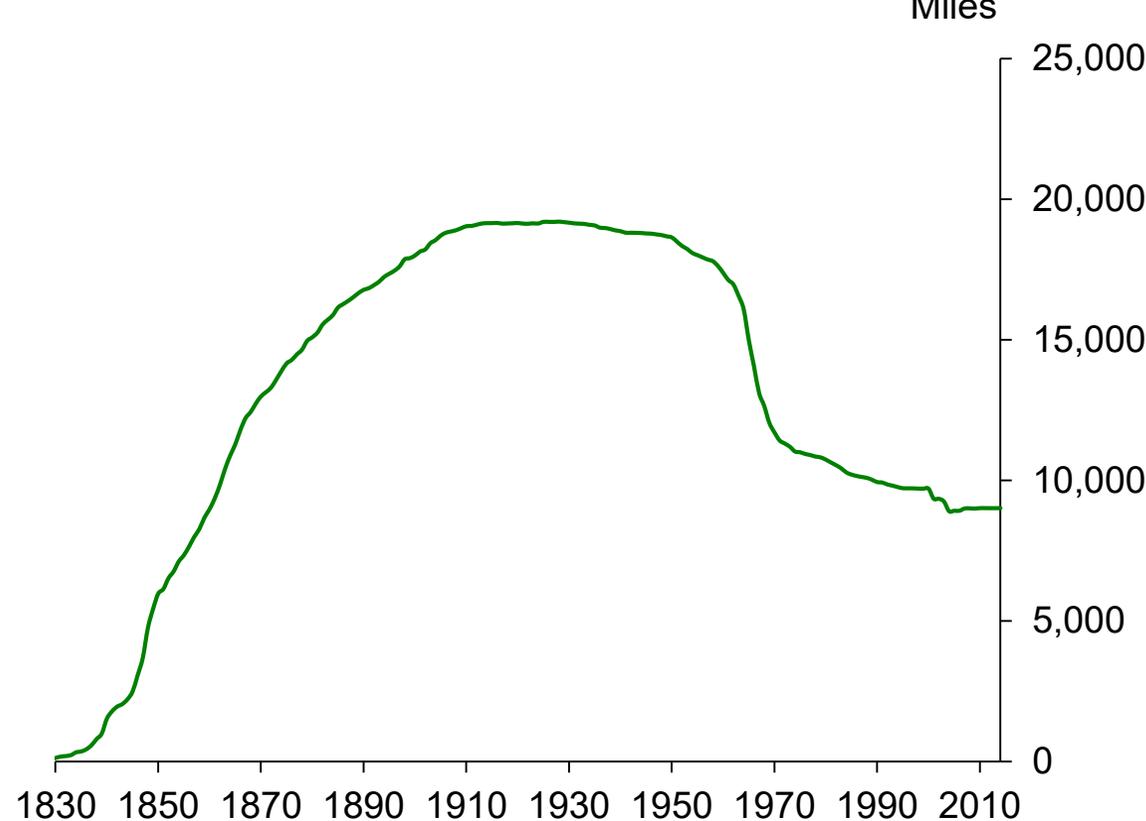
The Rise of Transport

Roads



Source: Cambridge Group for the History of Population and Social Structure (LHS), and Department for Transport (RHS)

Rail



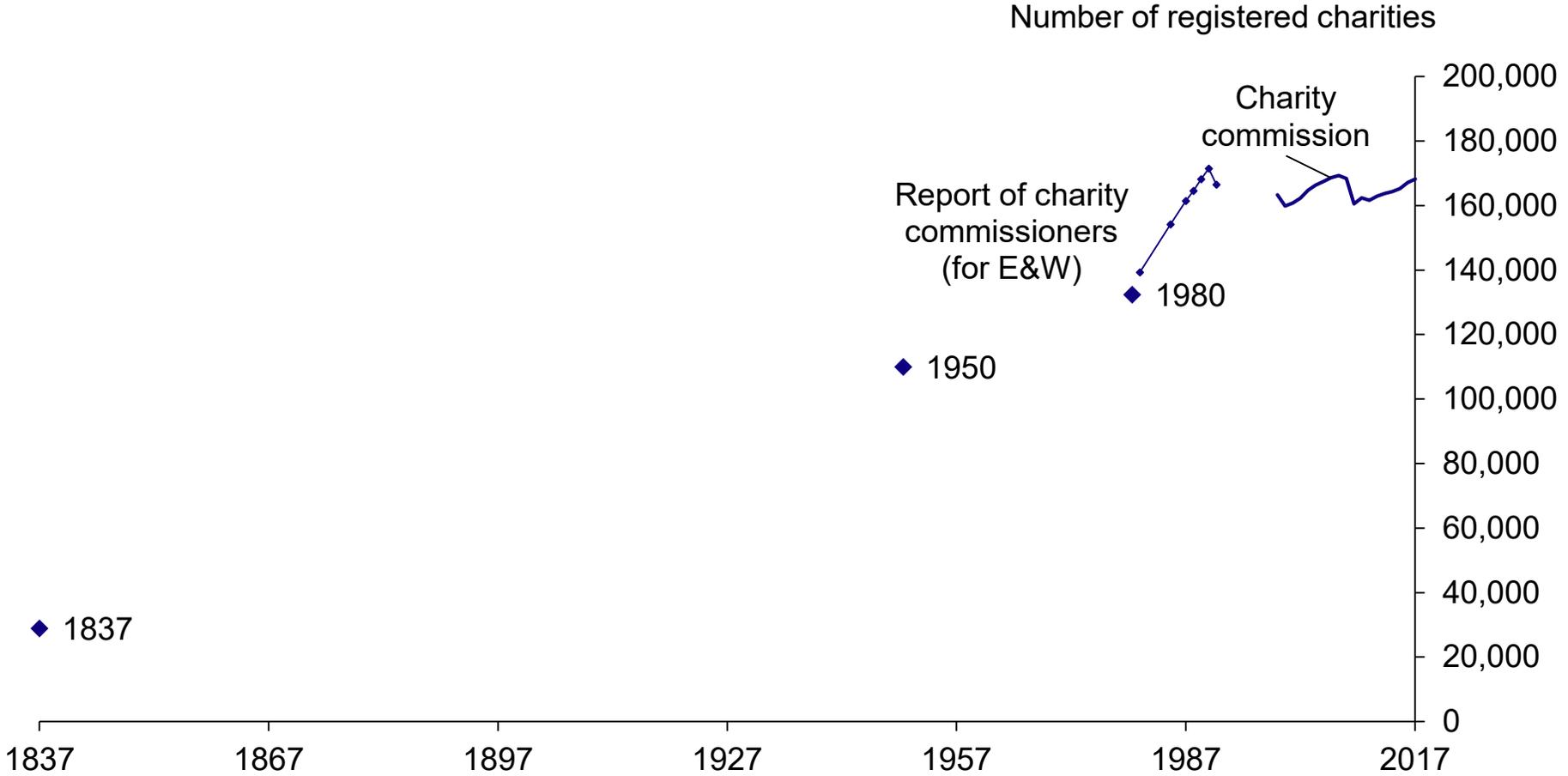
Source: Cambridge Group for the History of Population and Social Structure and Office of Rail and Road.

Civil Society

- Charity, volunteering, mutual help dates from (at least) Middle Ages
- Statute of Charitable Causes (1601), basis for charity law
- 18th century: Churches, Friendly Societies, social movements (e.g. anti-slavery)
- 19th century: formalising voluntary, not-for-profit and charities to counter social effects of Industrial Revolution
- E.g. YMCA (1844), Barnardo's (1866)
- 20th century: NCVO (1919) to Big Society (2010)



The Rise of Charities



Sources: Nathan Report (1952) for 1837 and 1950, Report of charity commissioners for England & Wales (various) for 1980 to 1991, and Charity Commission (2019)



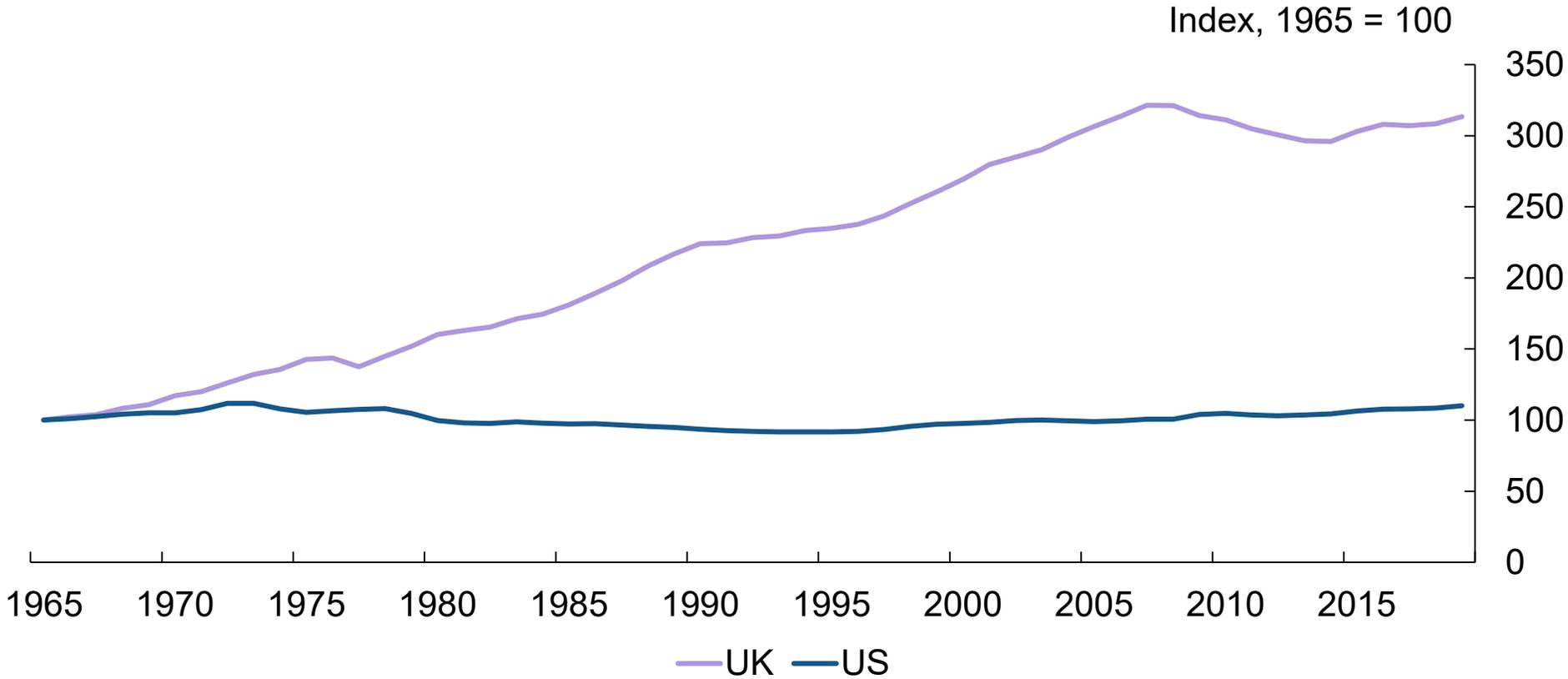
Enlightenment Now?

- Wealth, health, happiness no longer ascending for everyone
- Signs of erosion of the six pillars
- From “Age of Enlightenment” to “Era of Anxiety”
- ‘Market economy’ model – capitalism – being questioned



Wage Stagnation

Real wages

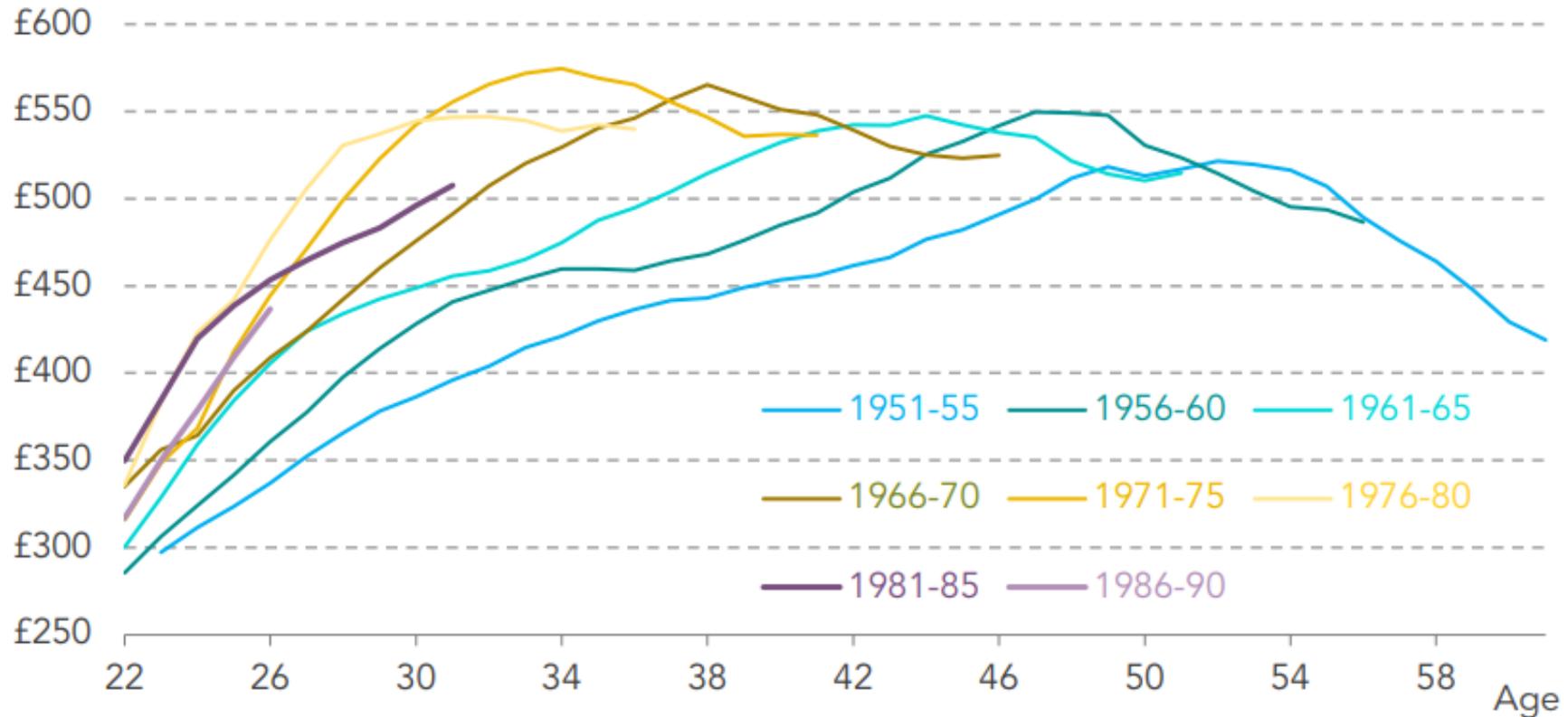


Sources: US Bureau of Economic Analysis, ONS and Bank calculations.



Wage Stagnation

Median real weekly employee pay (CPIH-adjusted to 2017 prices), by age and cohort: UK, 1975-2017

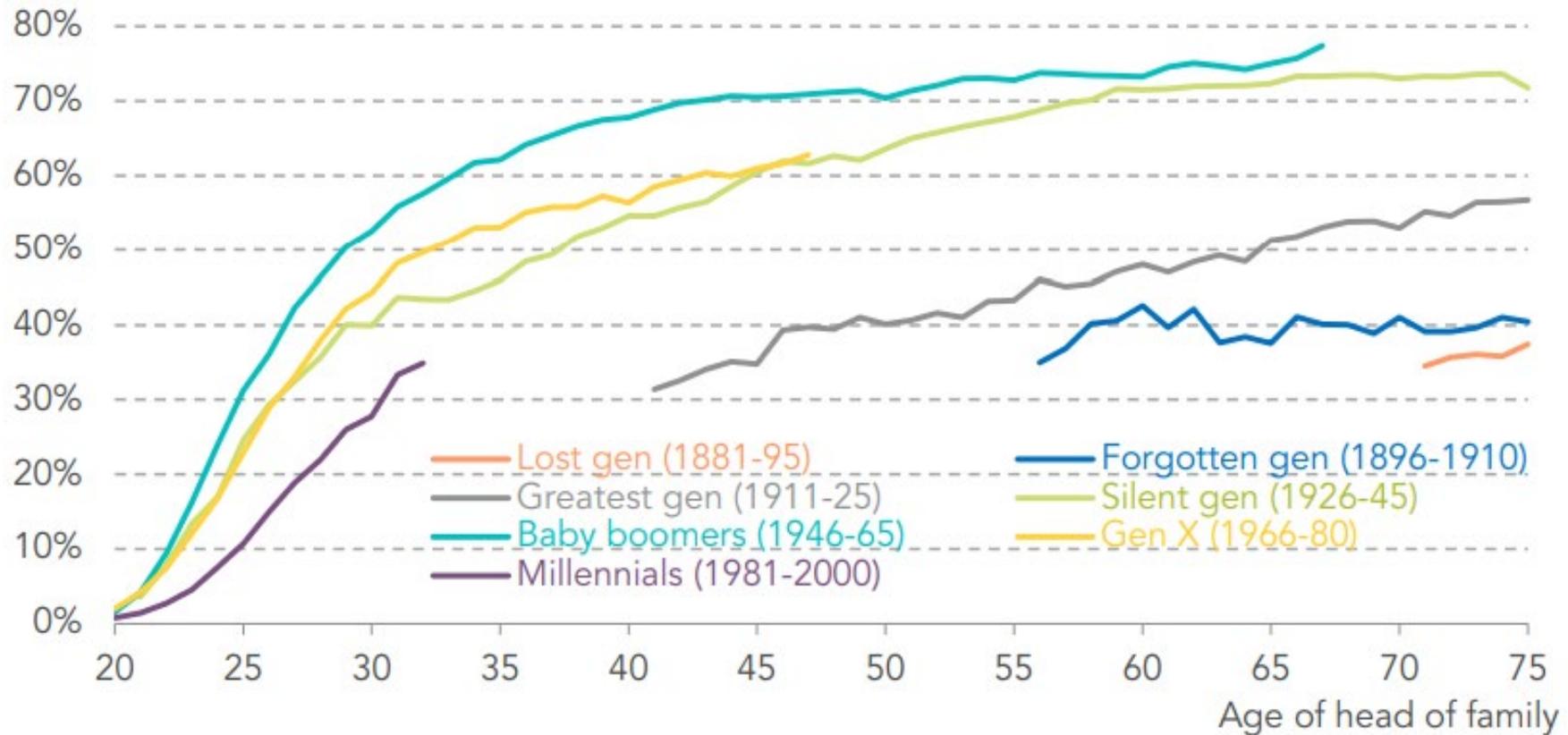


Source: Resolution Foundation (2018).



Falling Home Ownership

Home ownership rates, by age and generation: UK: 1961-2017

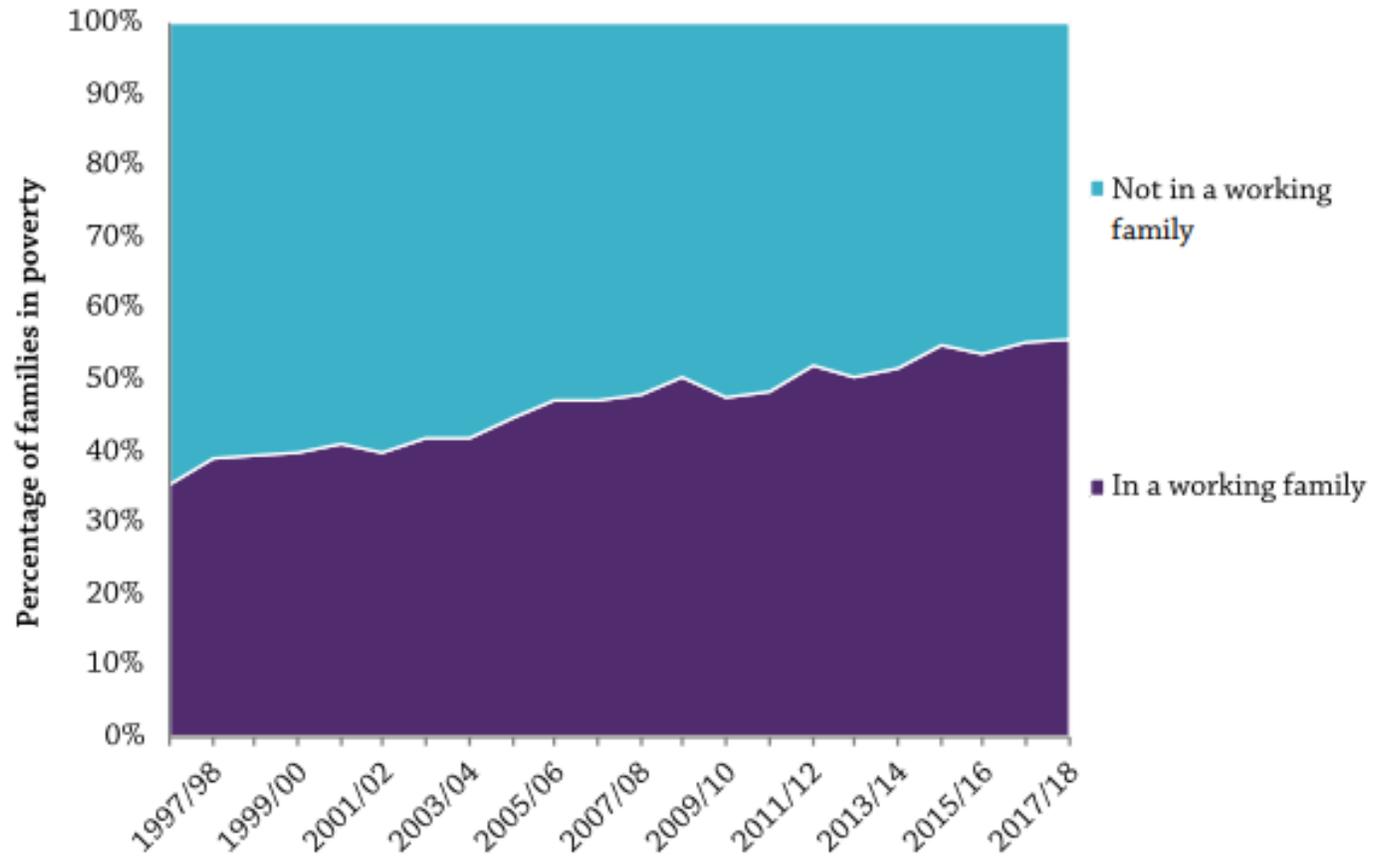


Source: Resolution Foundation (2018).



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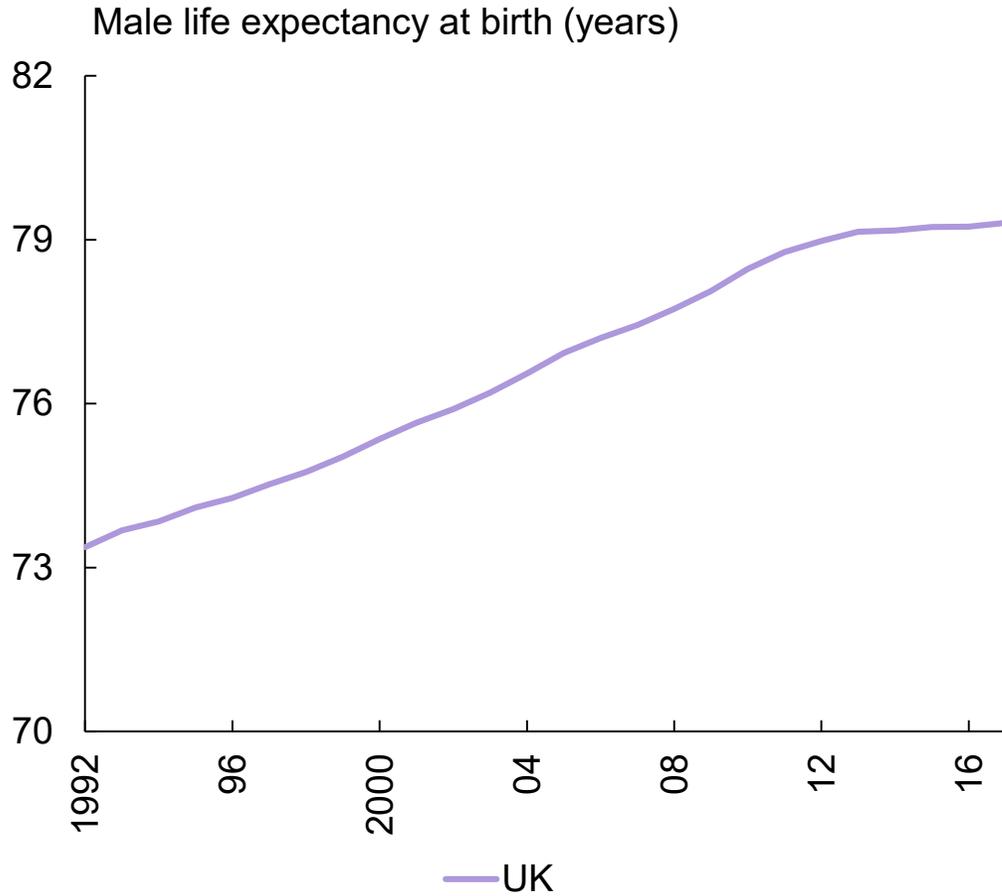
(In-work) Poverty Rising?



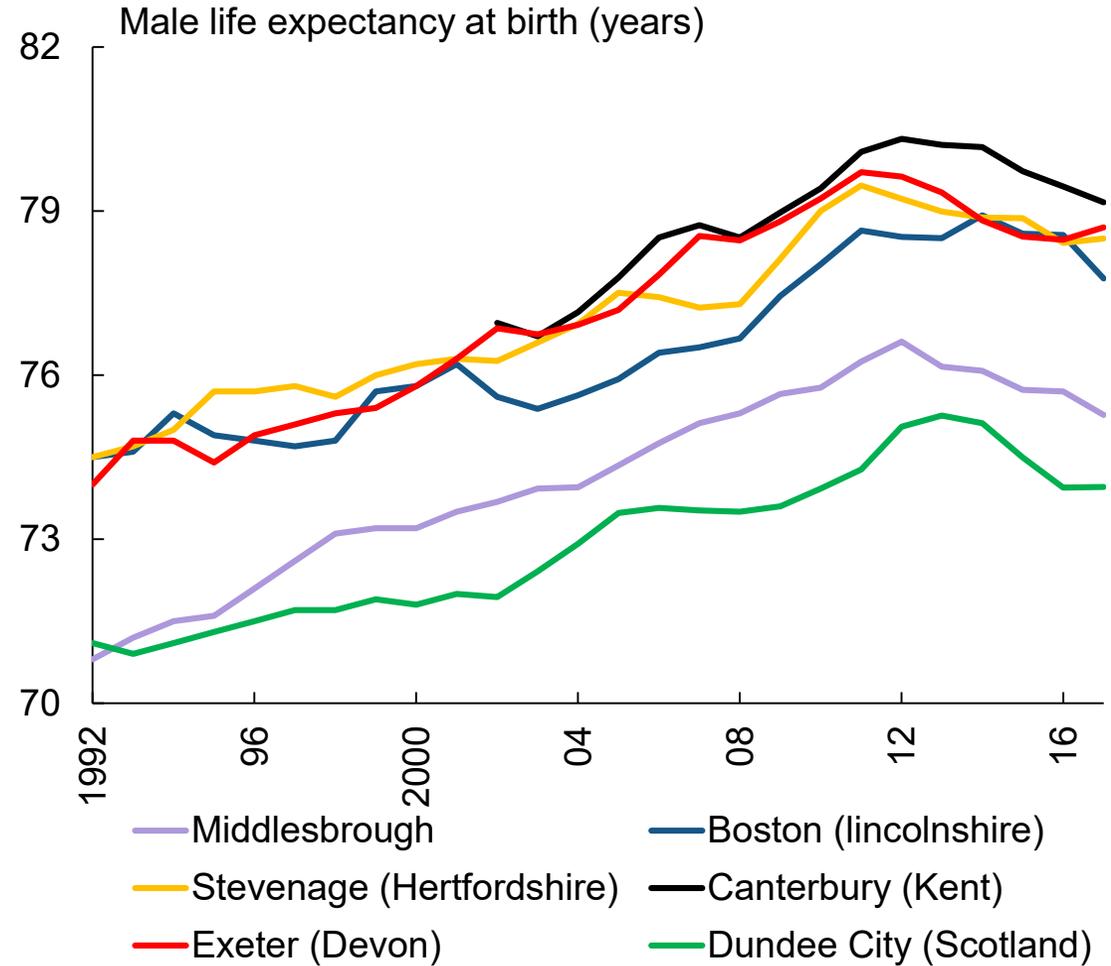
Source: Joseph Rowntree Foundation (2020).



Peak Health?



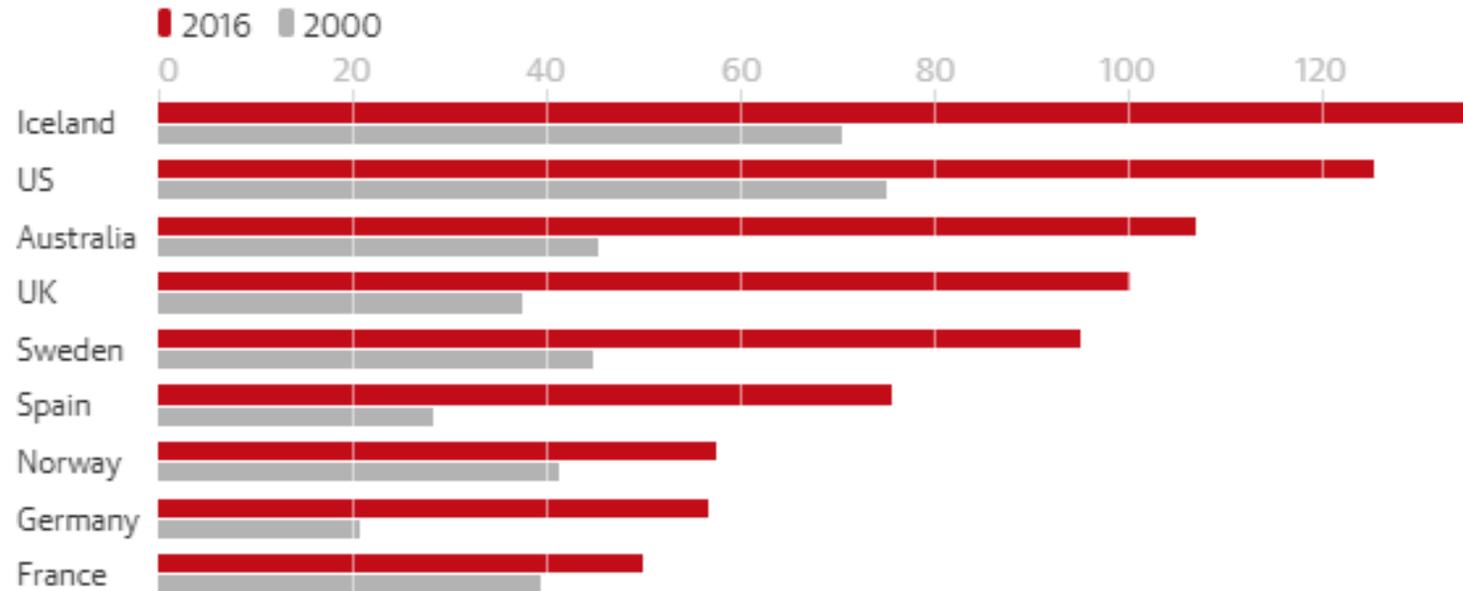
Source: ONS.



Peak Health?

Prescriptions for anti-depressants

Defined daily dosage per 1,000 people per day

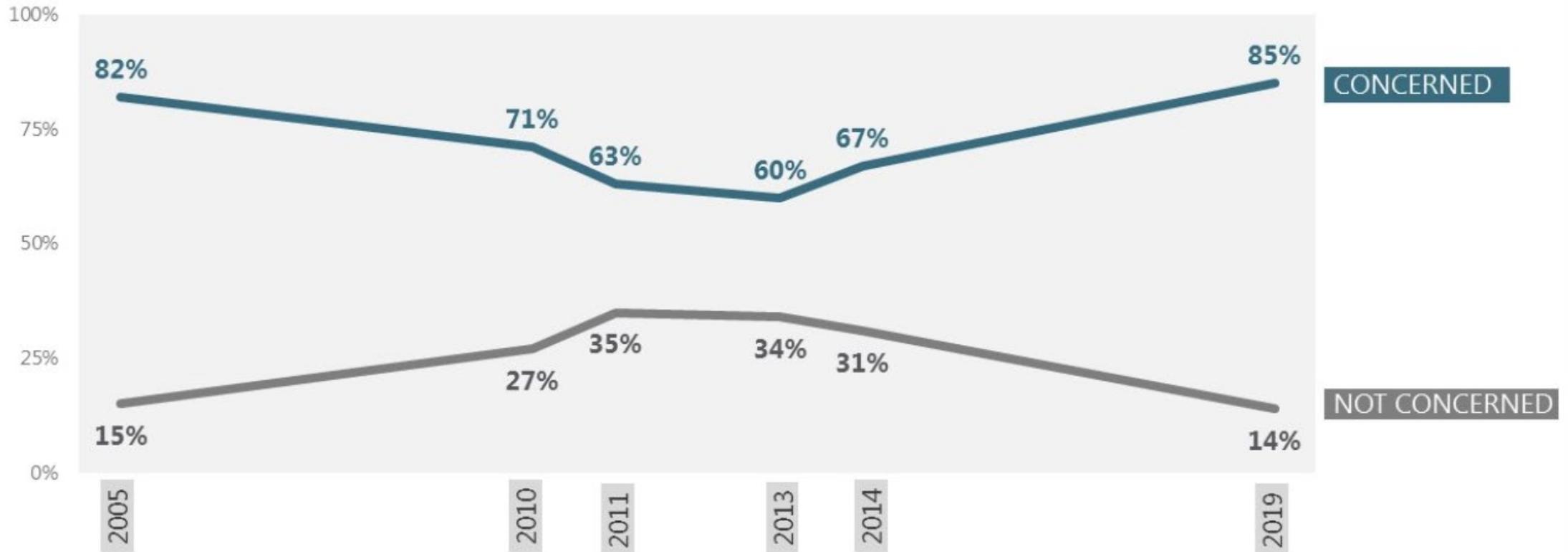


Guardian Graphic | Source: OECD. Note: According to the World Health Organization, defined daily dosage is the assumed average maintenance dose per day for a drug used for its main indication in adults



Peak Climate?

How concerned, if at all, are you about climate change?



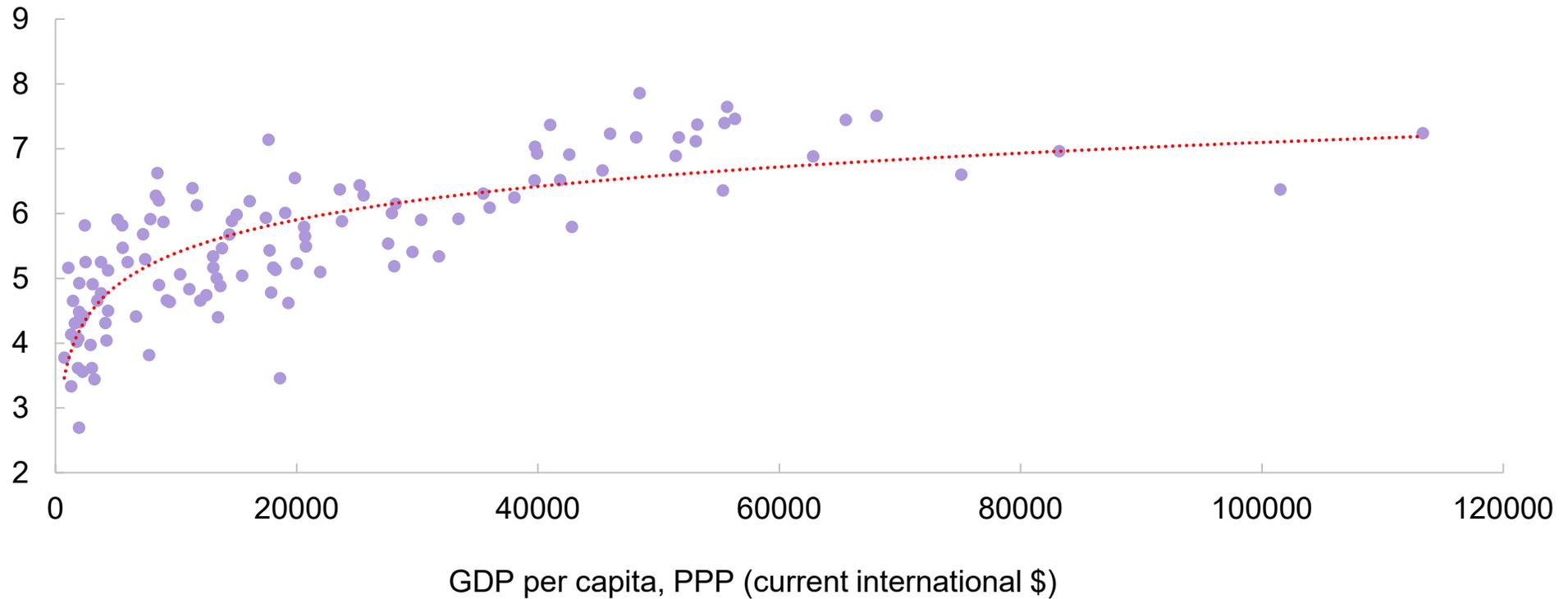
Bases: c.1,000 British adults each month

Source: Ipsos MORI Political Monitor



Peak Happiness? - Easterlin Paradox

Life Ladder (2018 Gallup world poll)

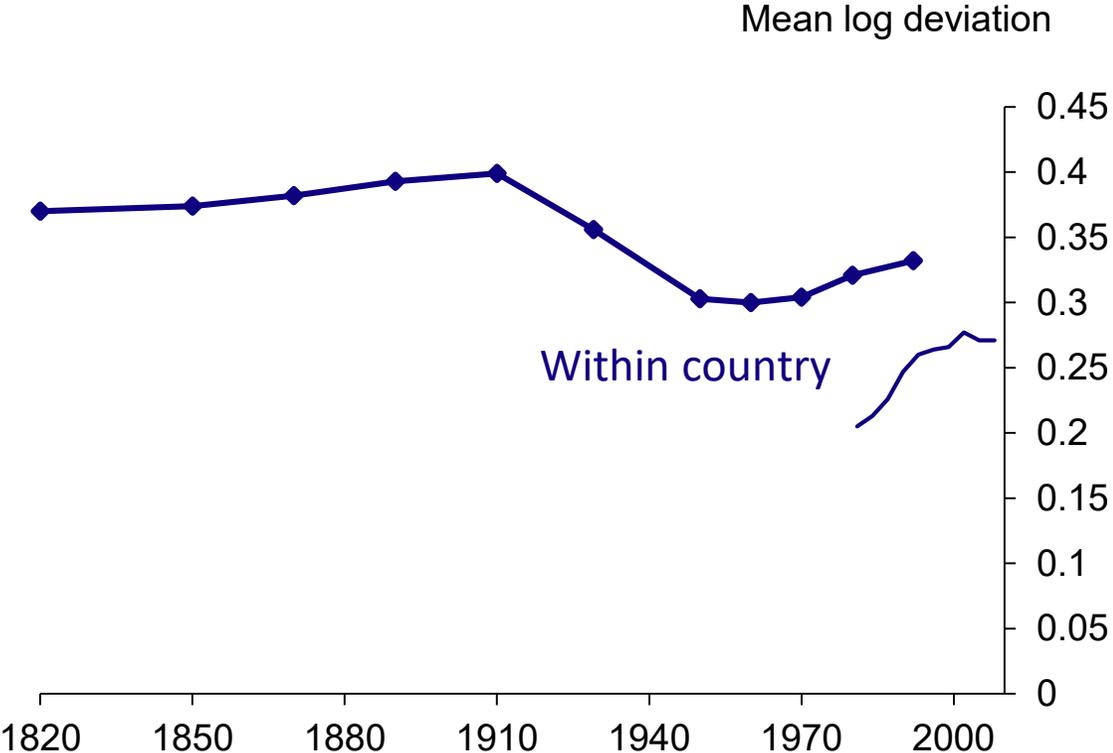


Sources: Gallup and OECD



Rising Inequality?

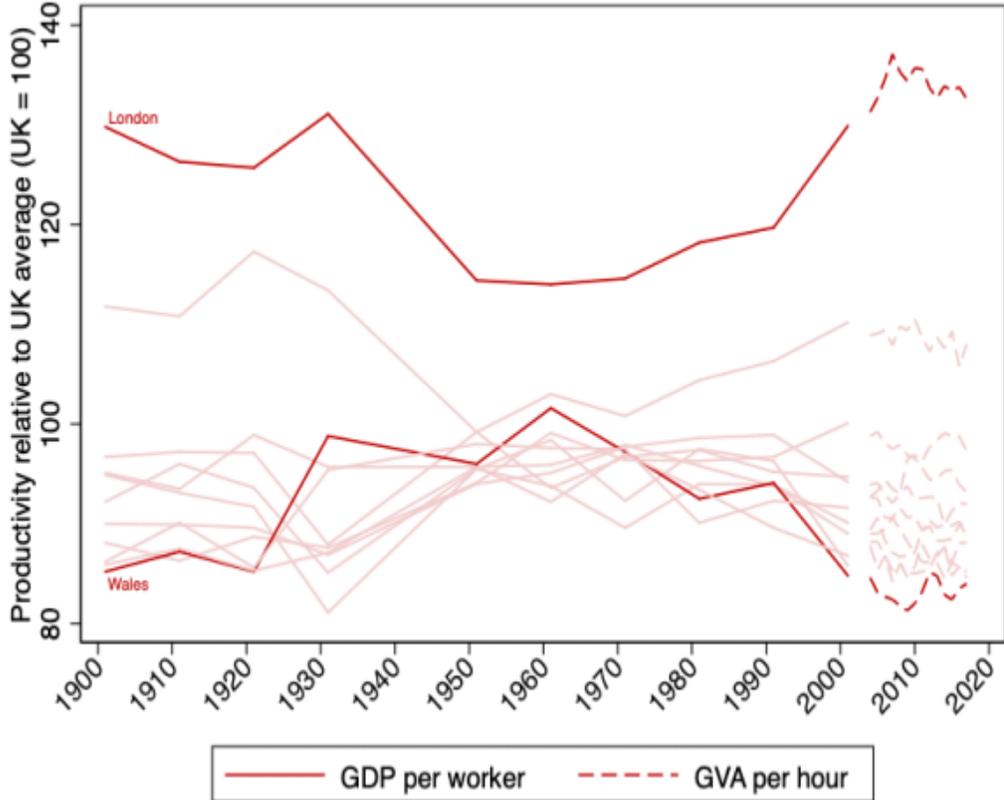
Within Country



Sources: Bourguignon and Morrisson (2002) for 1820-1992, Ravallion and Chen (2012) for 1981-2008



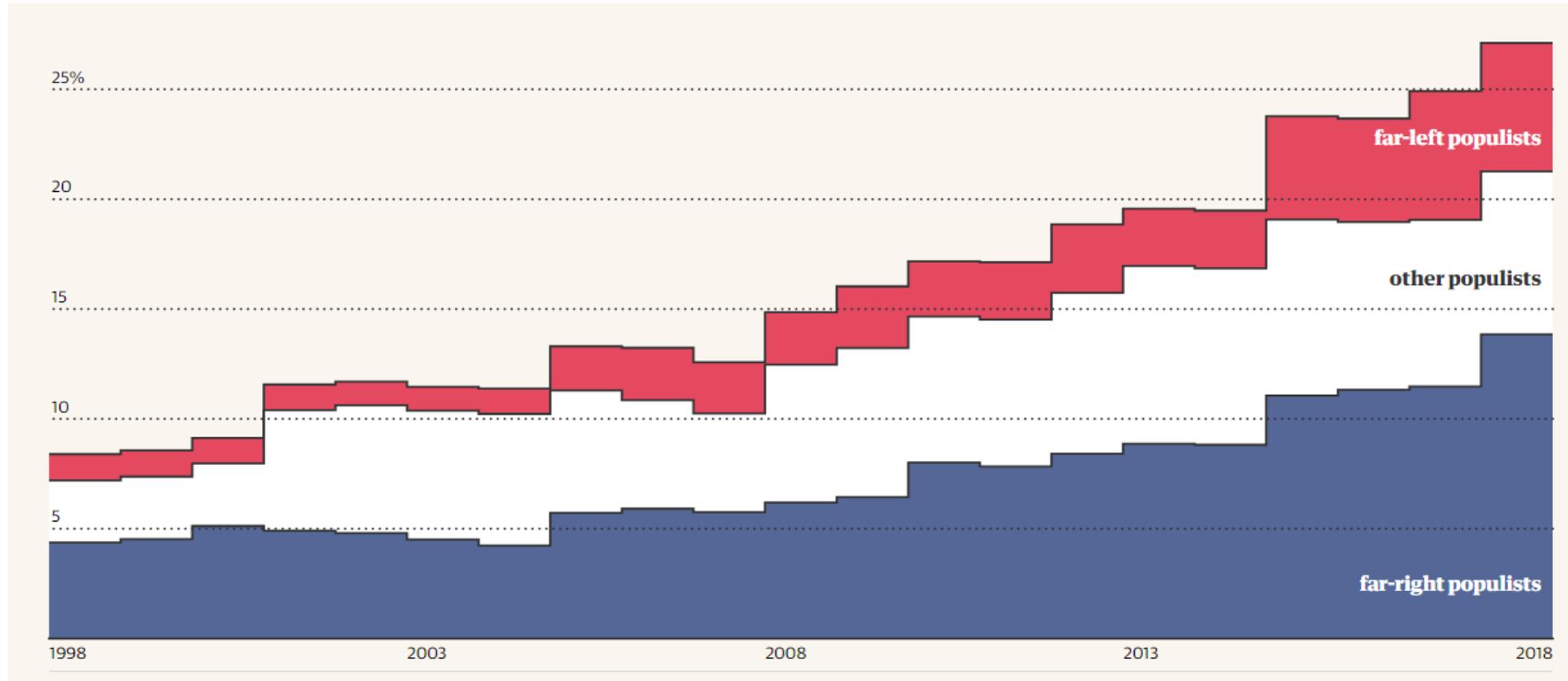
Regional Inequality in UK



Source: Industrial Strategy Council (2020).

Rising Populism?

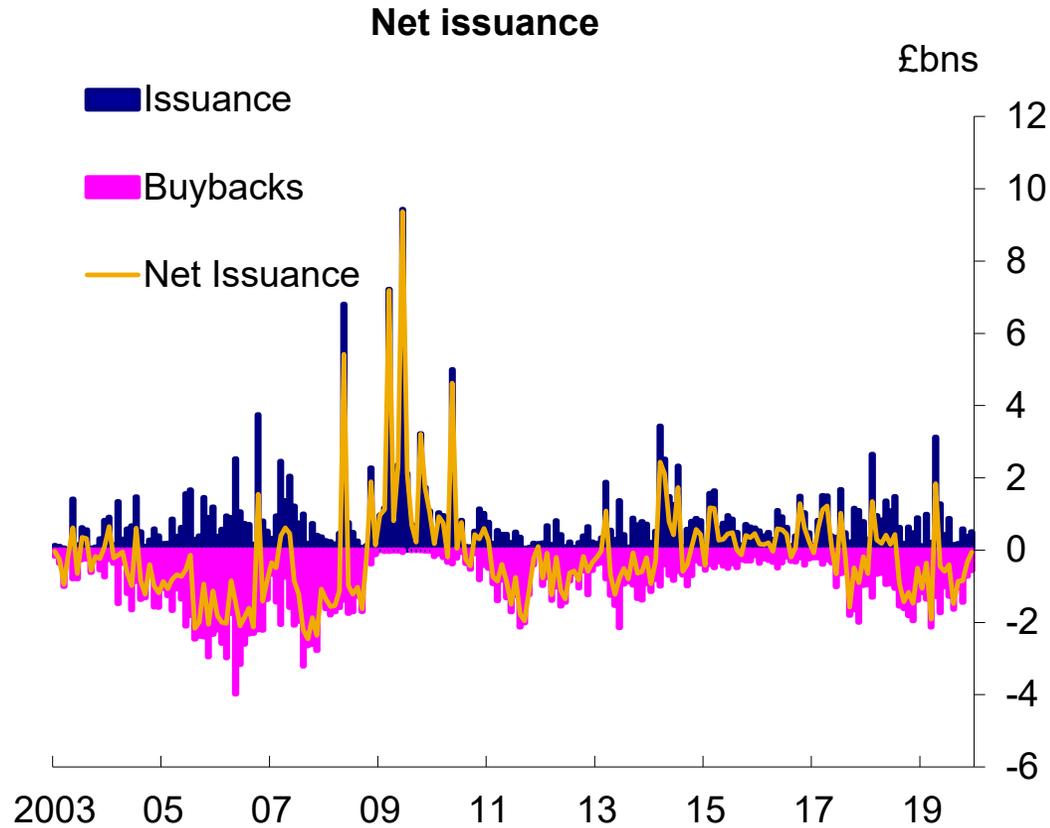
Populist vote share in Europe



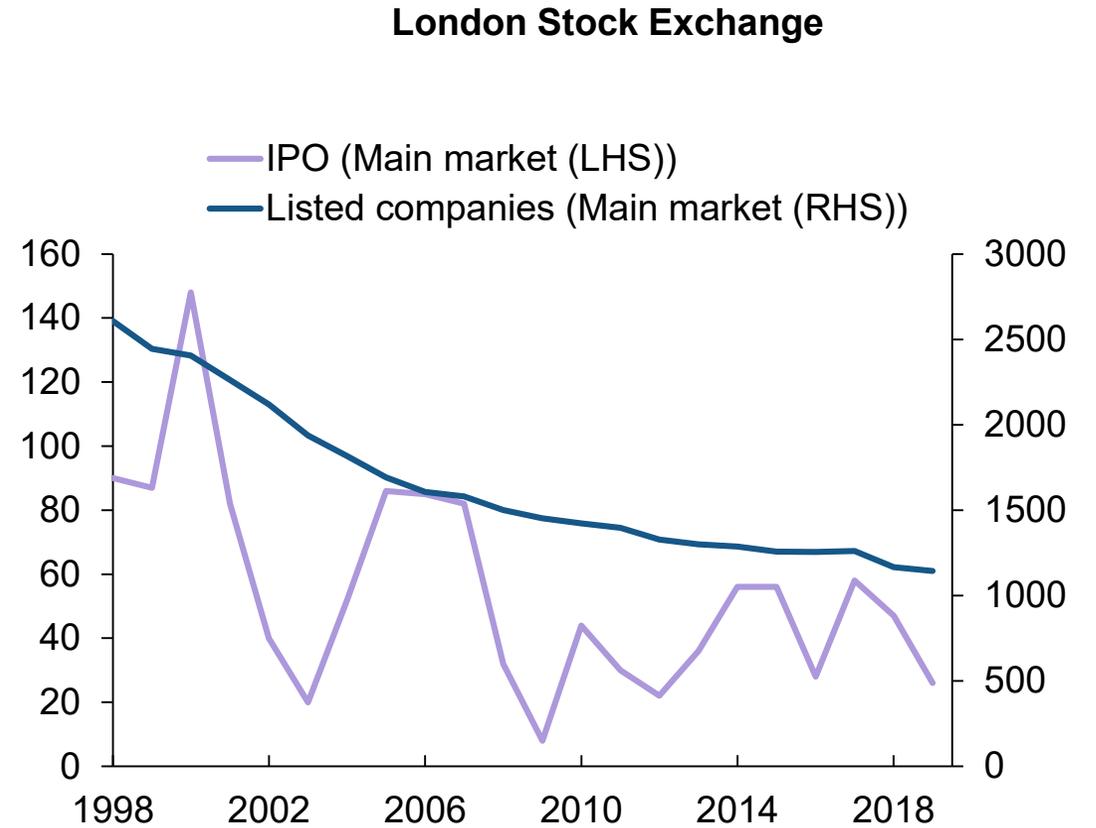
Source: The Guardian.



Death of the Public Company?



Source: Bank of England and Bank calculations.

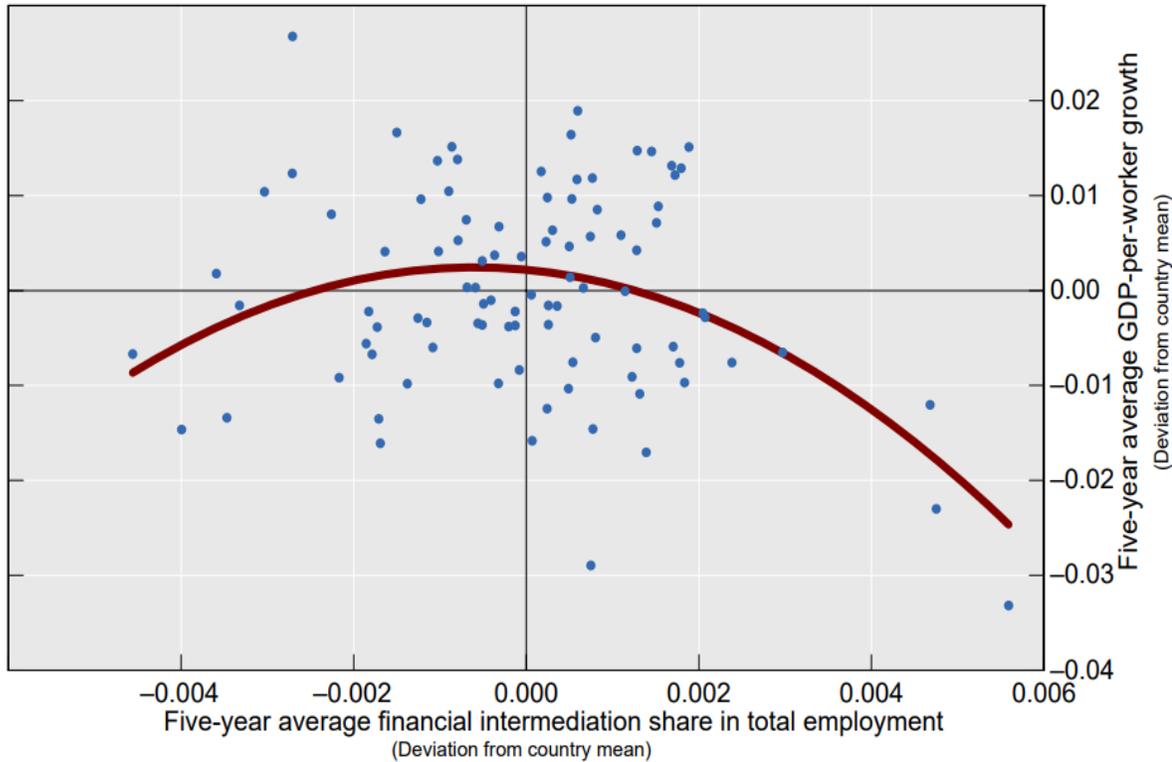


Source: London Stock Exchange and Bank calculations.



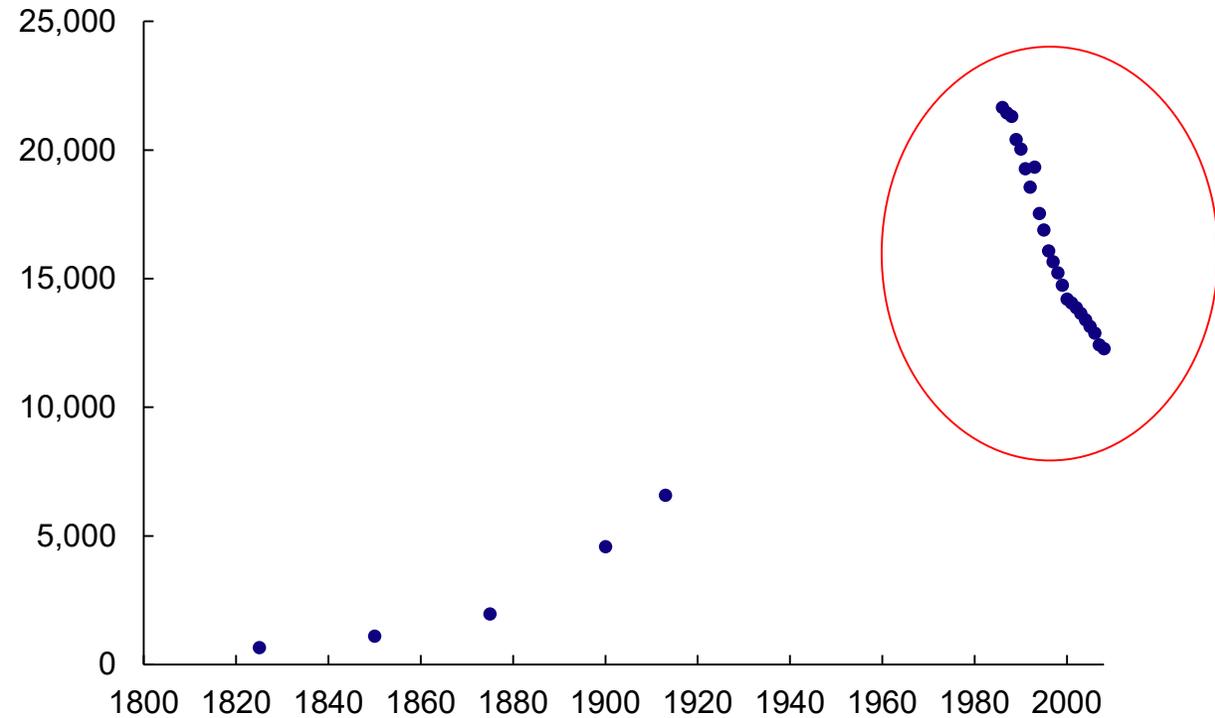
Banking for Everyone?

Financial sector share in employment and growth



Source: Cecchetti and Kharroubi (2012).

Number of bank branches

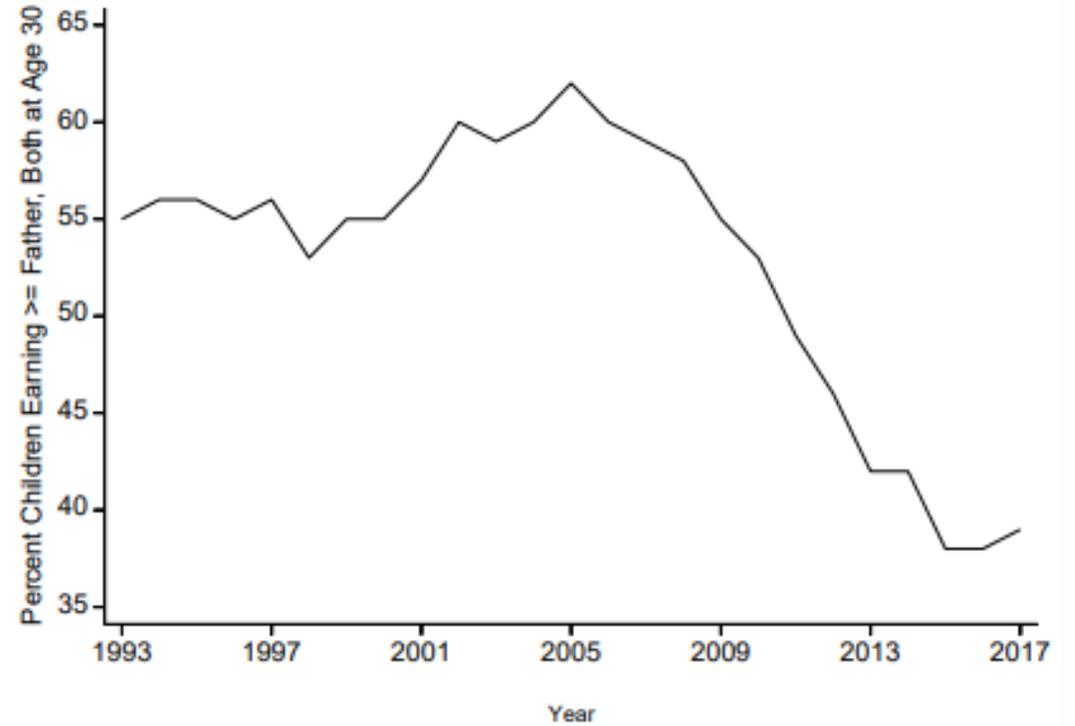
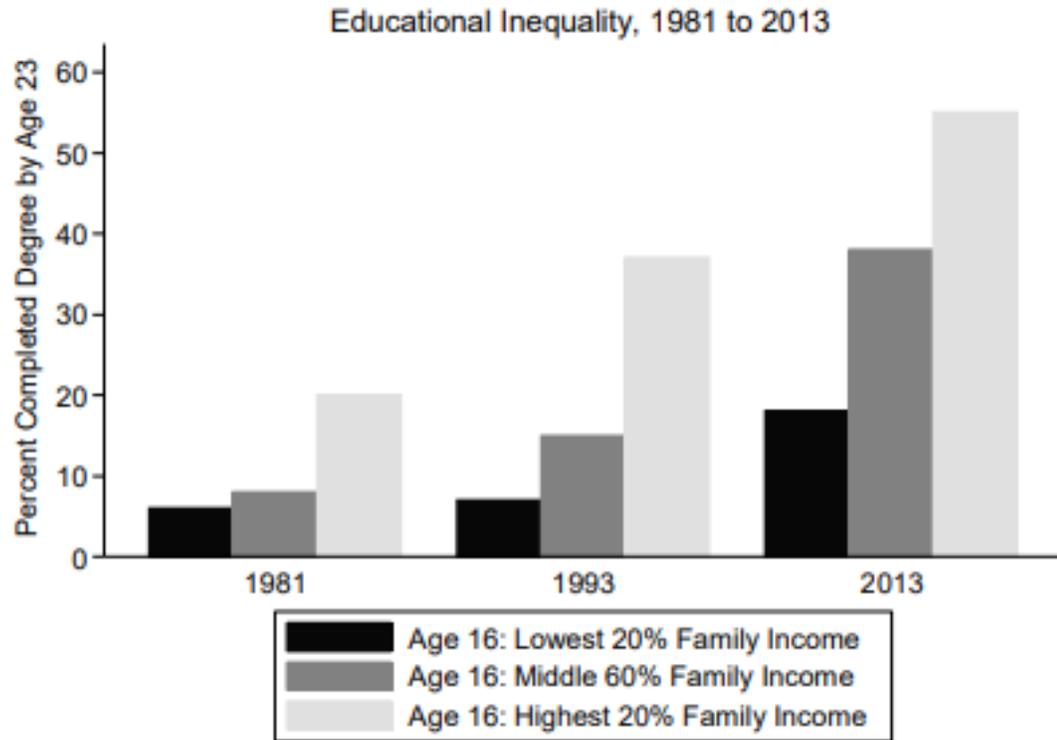


Sources: Collins, M., & Baker, M. (2003) for 1850-1913 and House of Commons Library (2020) for 1986-2019



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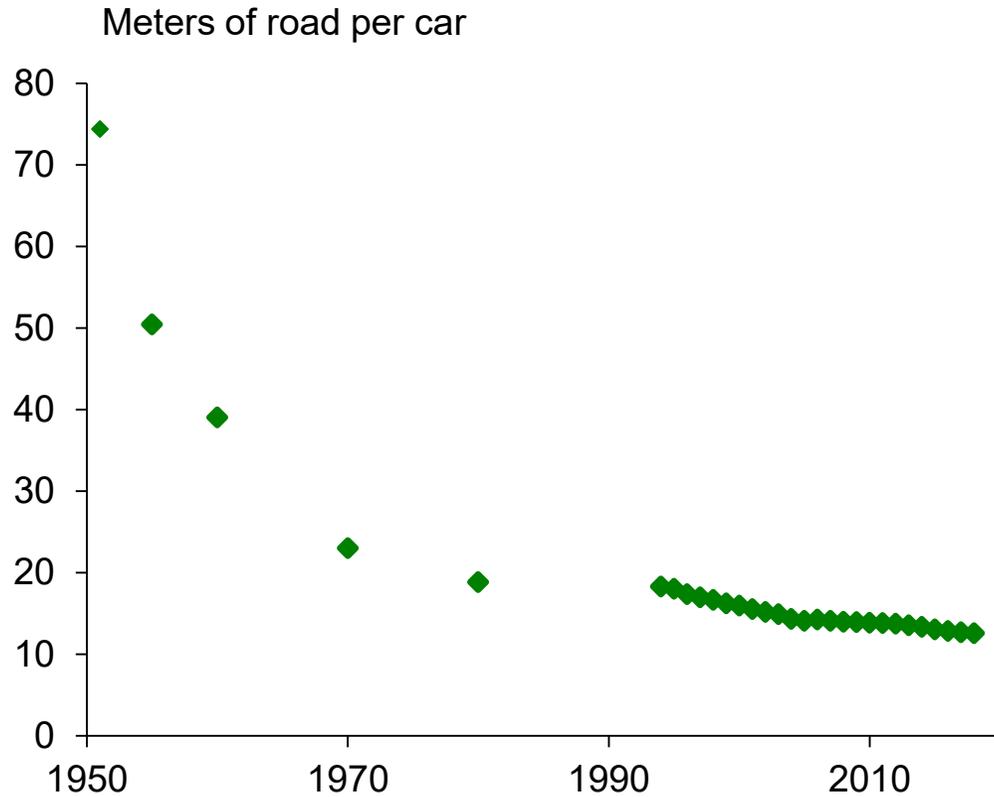
Education for All?



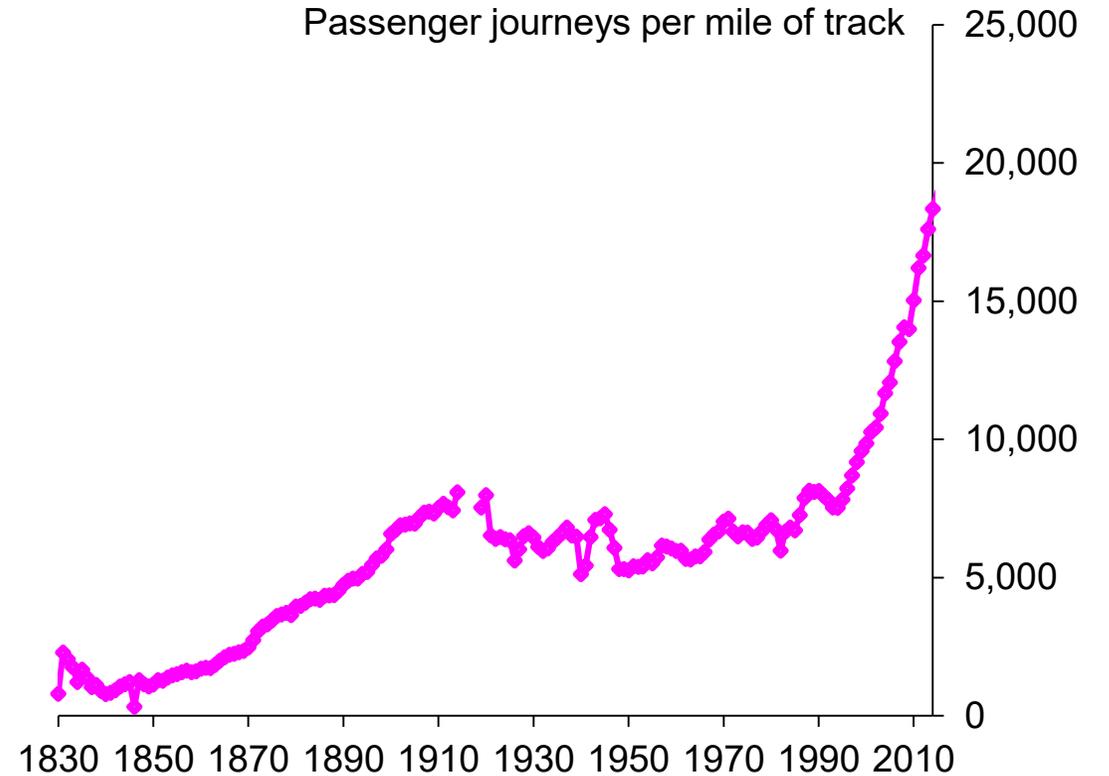
Source: Elliot Major and Machin (2019).



Creaking Infrastructure?



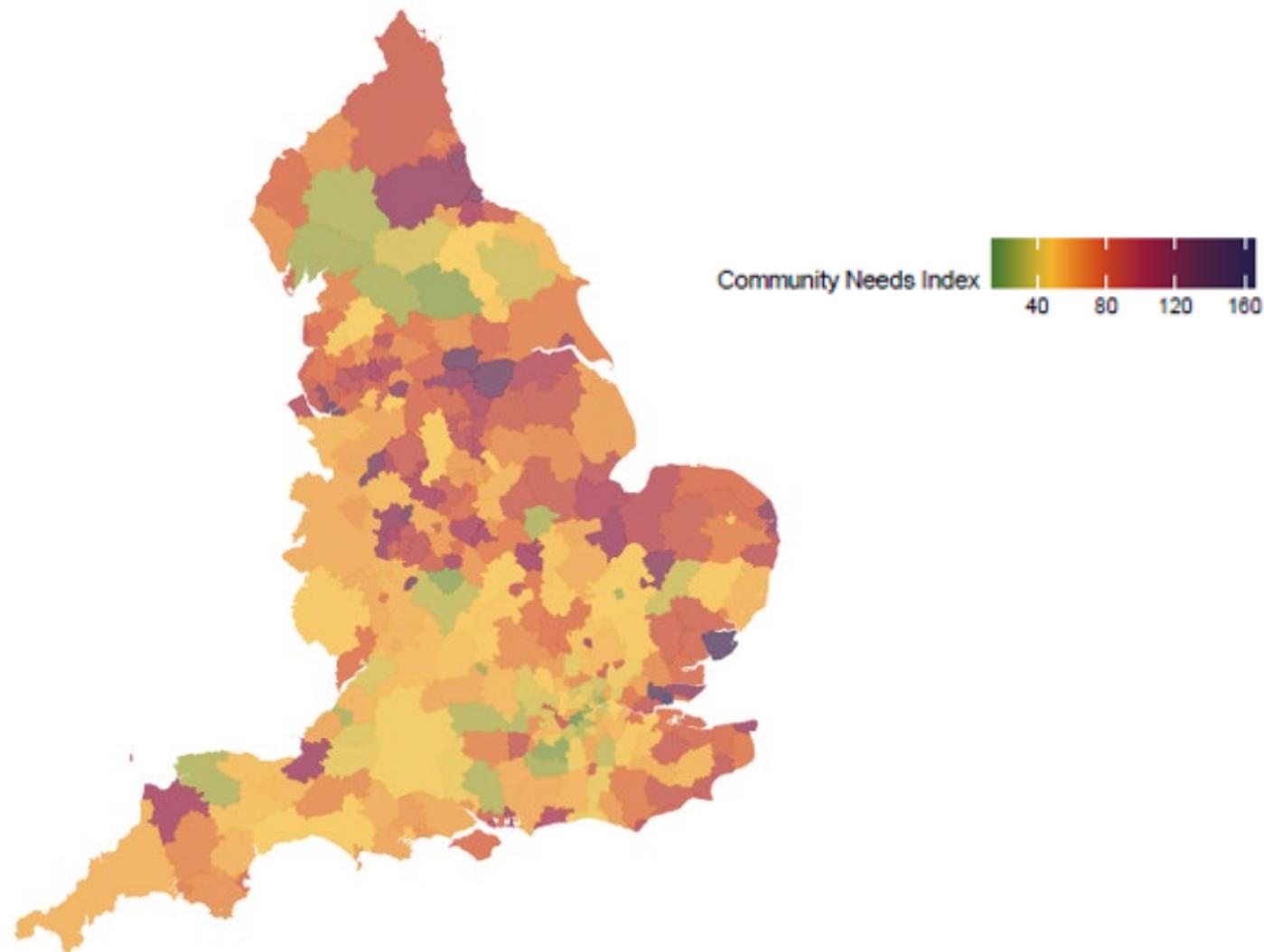
Sources: Department for Transport and Bank calculations.



Source: Cambridge Group for the History of Population and Social Structure, Office of Rail and Road and Bank calculations.



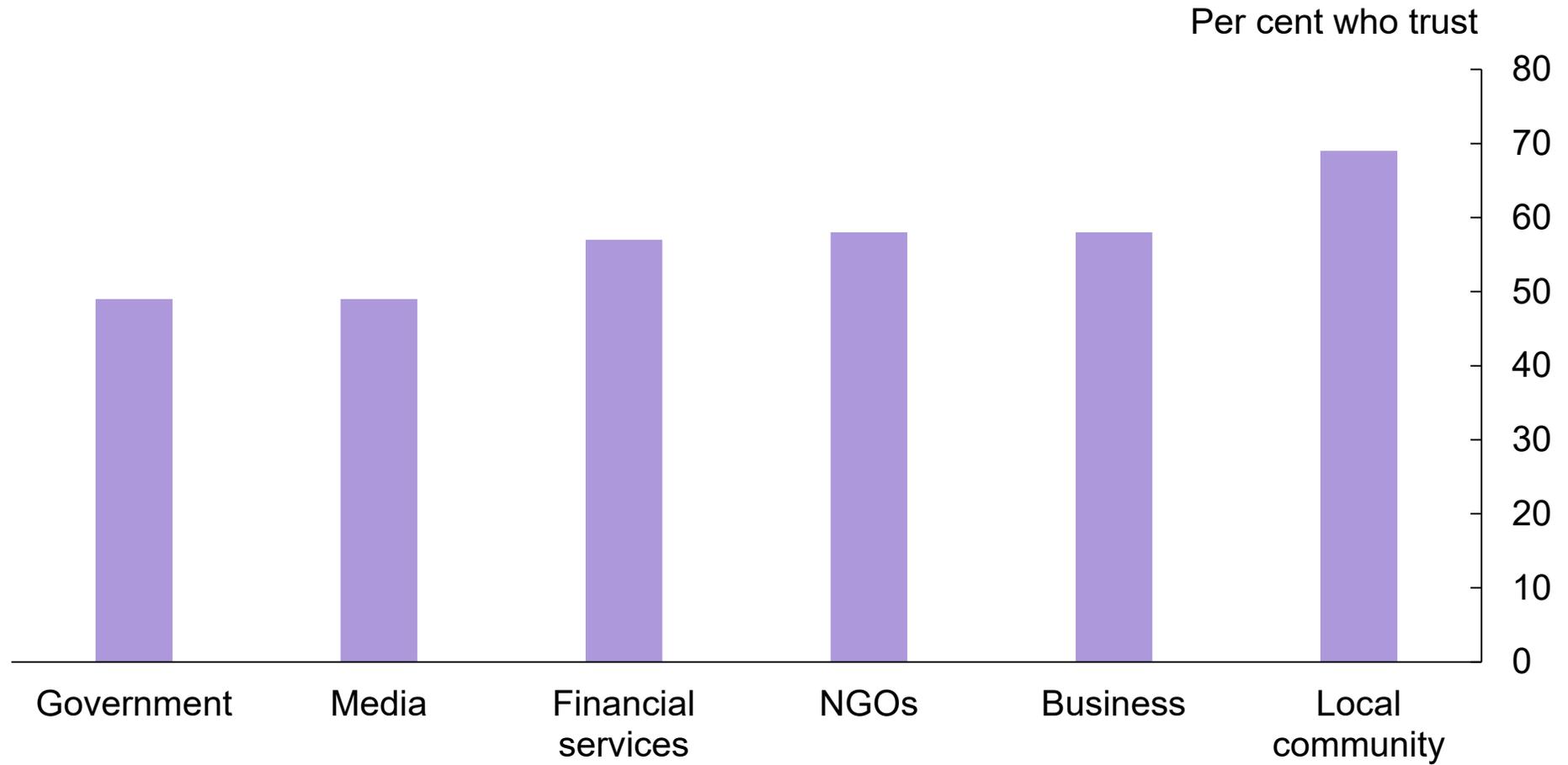
Social Infrastructure Creaking?



Source: Local Trust and OCSI.



The Trust Deficit



Source: Edelman Trust Barometer.



The New Model?

- More market?
 - Populist right
- More state?
 - Populist left
- Whither Third Pillar?
 - Raghu Rajan
- Is there a non-radical alternative?
 - Embraces all three pillars
 - Repurposes them for 21st century, Smith-style
 - Reconstruct the six pillars of success



Purposeful Companies

- Primacy of the shareholder?
- Companies as a social, not a legal, contract
- Plural set of stakeholders— shareholders, staff, customers, creditors, society, environment
- ‘B’-corporations, statements of purpose, corporate governance codes
- Is a new Companies Act needed?



Purposeful Banking

- Is banking socially-purposed?
- Banking as a utility service/network?
 - Branches
 - Digital banking/payments
 - Central bank digital currencies
- Financing companies/households
 - Regional banks?
 - Development banks?



New Measuring Systems

- **Companies**

- Beyond 'P+L'
- ESG reporting
- Integrated reporting

- **Economies**

- Back to Bentham
- Beyond 'GDP' – well-being metrics
- From Bhutan to New Zealand
- Keeping score of 'success' – education, health, transport, economy



New Educational Model

- 150 years – academic education of the young
- Next 50 years
 - Teaching all ages
 - Academic, vocational, interpersonal
- Making lifelong learning a reality
- Educational passports, lifelong educational credits



New Public Infrastructure

- Re-investing in existing public infrastructure
 - Road, rail, bike
 - Digital infrastructure
- Investing in new public infrastructures
 - Open data commons
 - Digital twins
 - ARPA (Advanced Research Projects Agency)?



New Civil Society

- Back to the meaning of “work”
- Making lifelong civic contributions a reality
- Recognising and rewarding civic contributions
 - Volunteering passports
 - Volunteering credits



Conclusion

The stakes are high ...

“If [justice] is removed, the great, the immense fabric of human society [...] must in a moment crumble into atoms.”

Smith (1759)

