



Can we solve the productivity puzzle?

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Agenda

- What is the productivity puzzle?
- Global explanations
- UK-specific factors
- Potential solutions
- Three questions for debate

Defining productivity

- Usually, ‘**output per hour worked**’ (i.e. labour productivity)
- Sometimes, ‘**output per worker**’ (but this flatters countries where people work long hours, like the US)
- Occasionally, ‘**total factor productivity**’, TFP, the ratio of output to total inputs of both labour and capital (though in practice, labour productivity is the most important part of this)

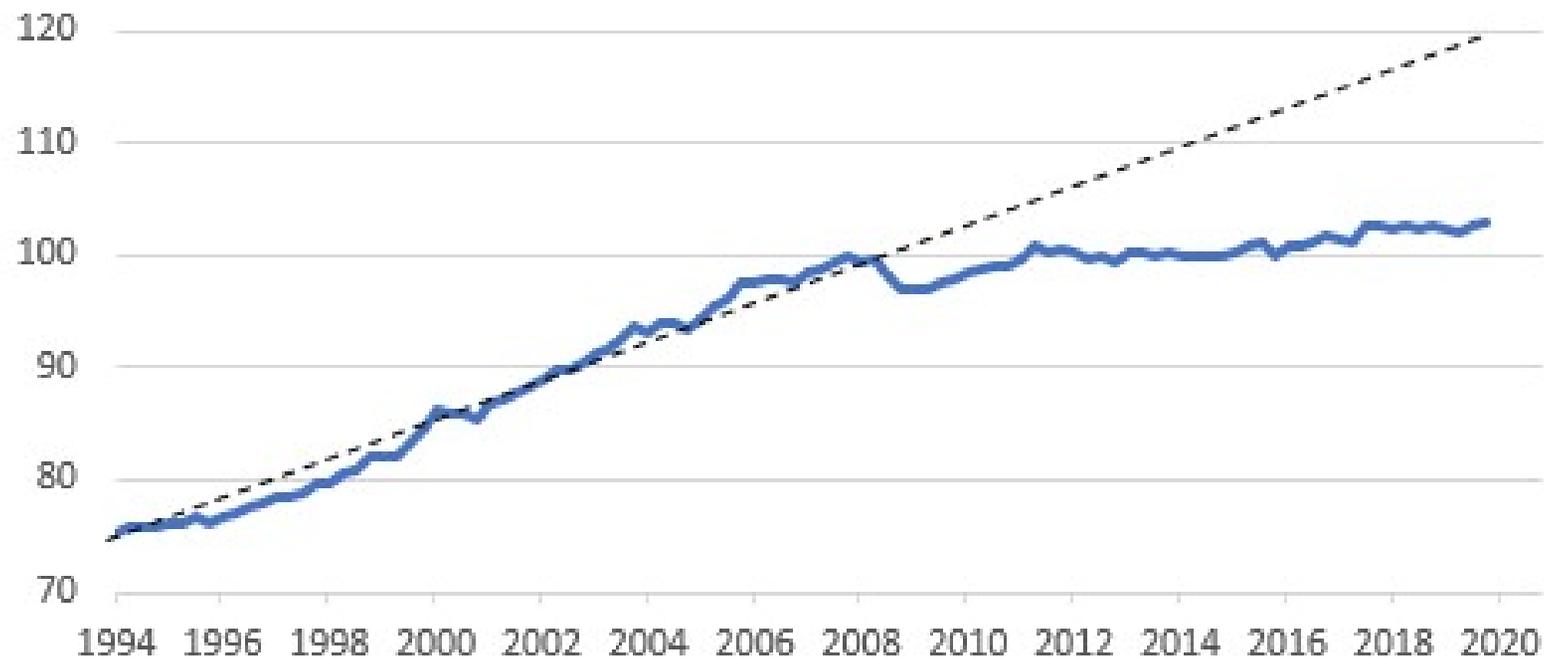
Royal Statistical Society UK Statistic of the Decade

- **0.3%:** average annual increase in UK productivity (output per hour worked) in the decade or so since the global financial crisis (GFC)
- Contrast to the pre-crisis period (1997 to 2007), when productivity growth averaged around 2% per year
- **The UK has experienced its worst decade for productivity growth since the early 1800s**



The UK productivity puzzle

UK Output Per Hour Worked
(Index where 2007 Q4 = 100)



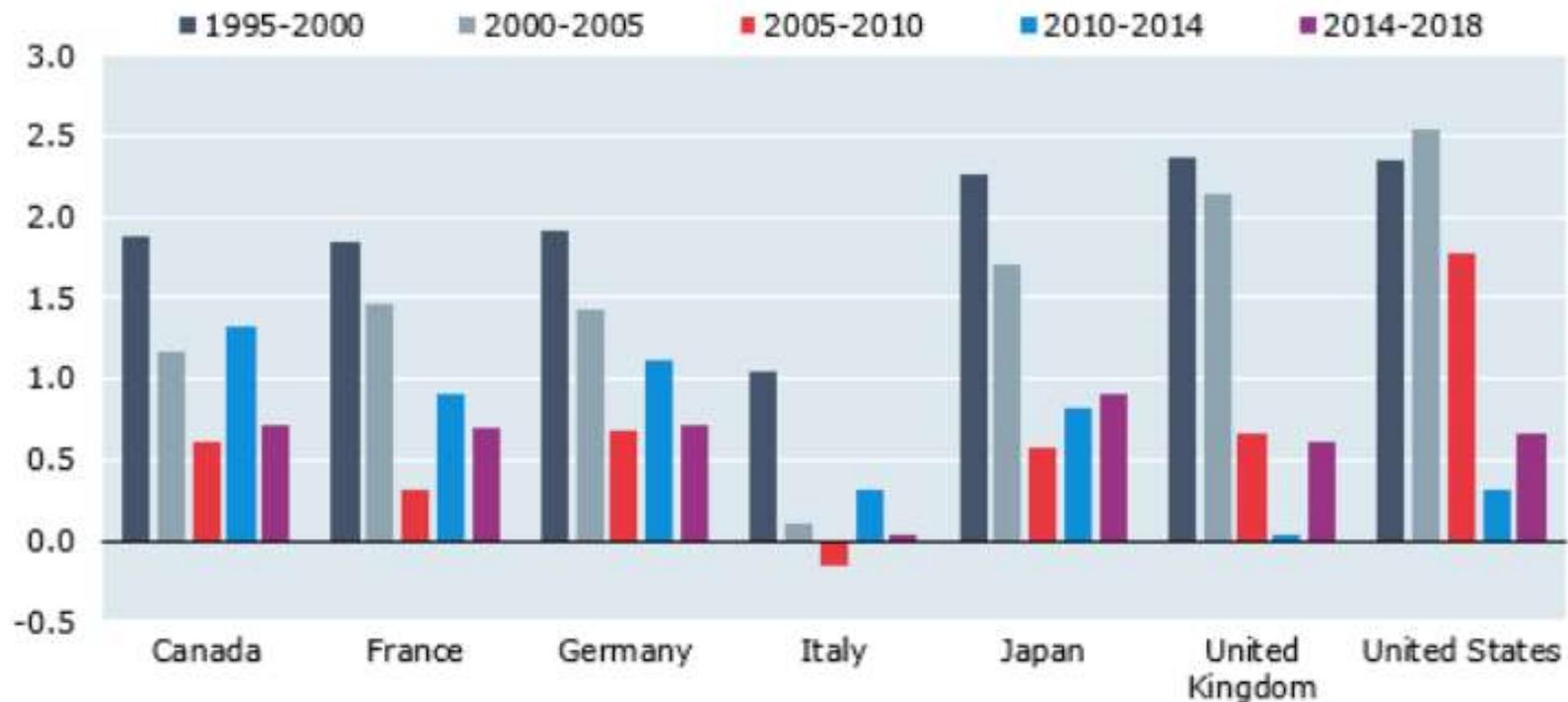
Why it matters

- *'Productivity isn't everything, but in the long run it is almost everything'* (Paul Krugman)
- Higher productivity usually means **higher wages** and allows people to work **fewer hours** for the same pay
- Productivity gains allow economies to grow and living standards to increase without using more resources (so **good for the planet**)
- Output per hour would now be more than a fifth higher if productivity had remained on its pre-2008 trend

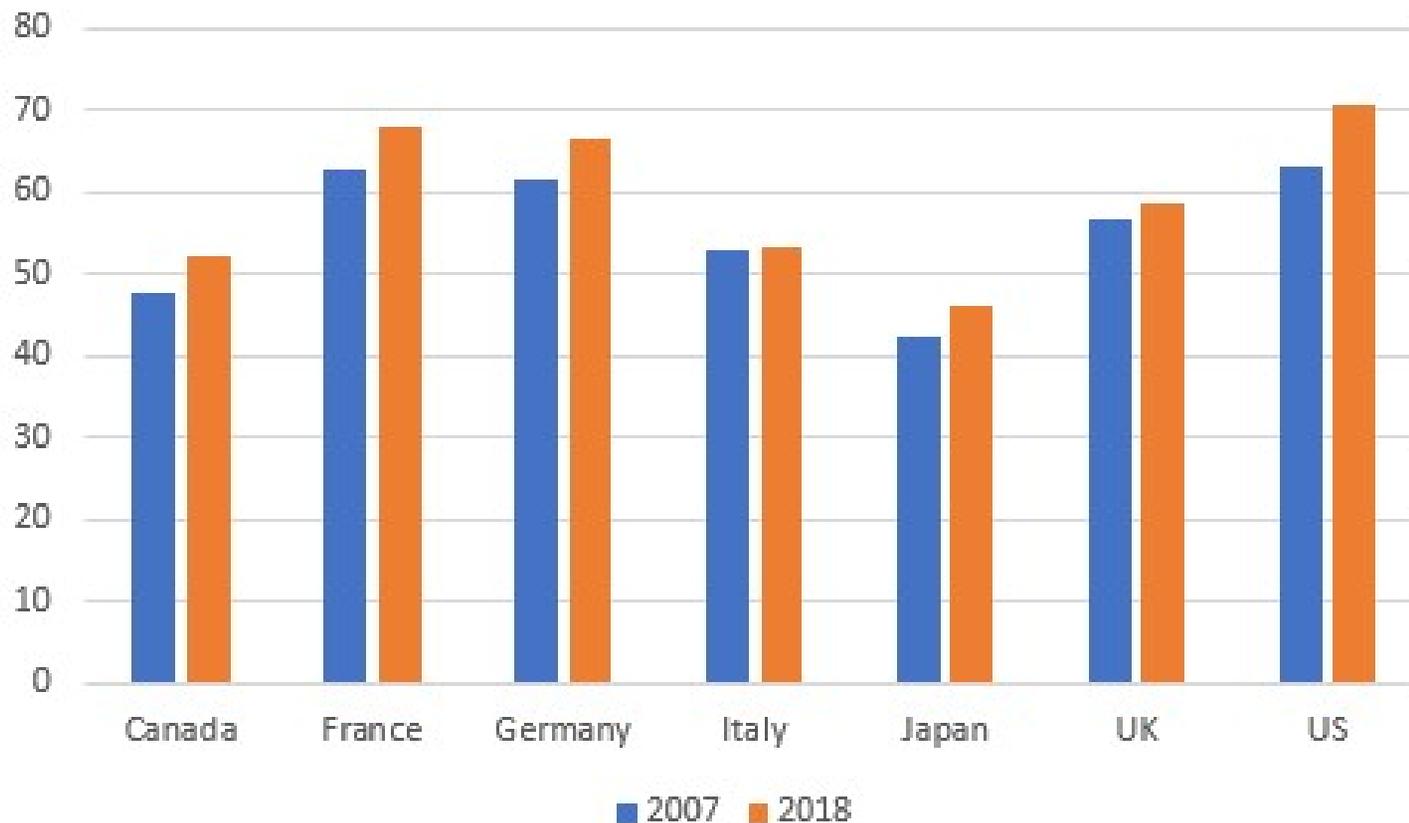
Productivity is cyclical

- Productivity usually falls during recessions:
 1. Firms are less efficient at lower levels of output and capacity utilisation (loss of economies of scale, etc.)
 2. Firms tend to 'hoard labour', because firing and then rehiring workers can be expensive
 3. Disruption and dislocation – e.g. the need to find new customers and suppliers, or seek new sources of finance – all distracting management

Labour productivity **growth** in the G7 (GDP per hour worked, annual % change)



Labour productivity **levels** in the G7 (GDP per hour worked, US\$ 2015 PPPs)



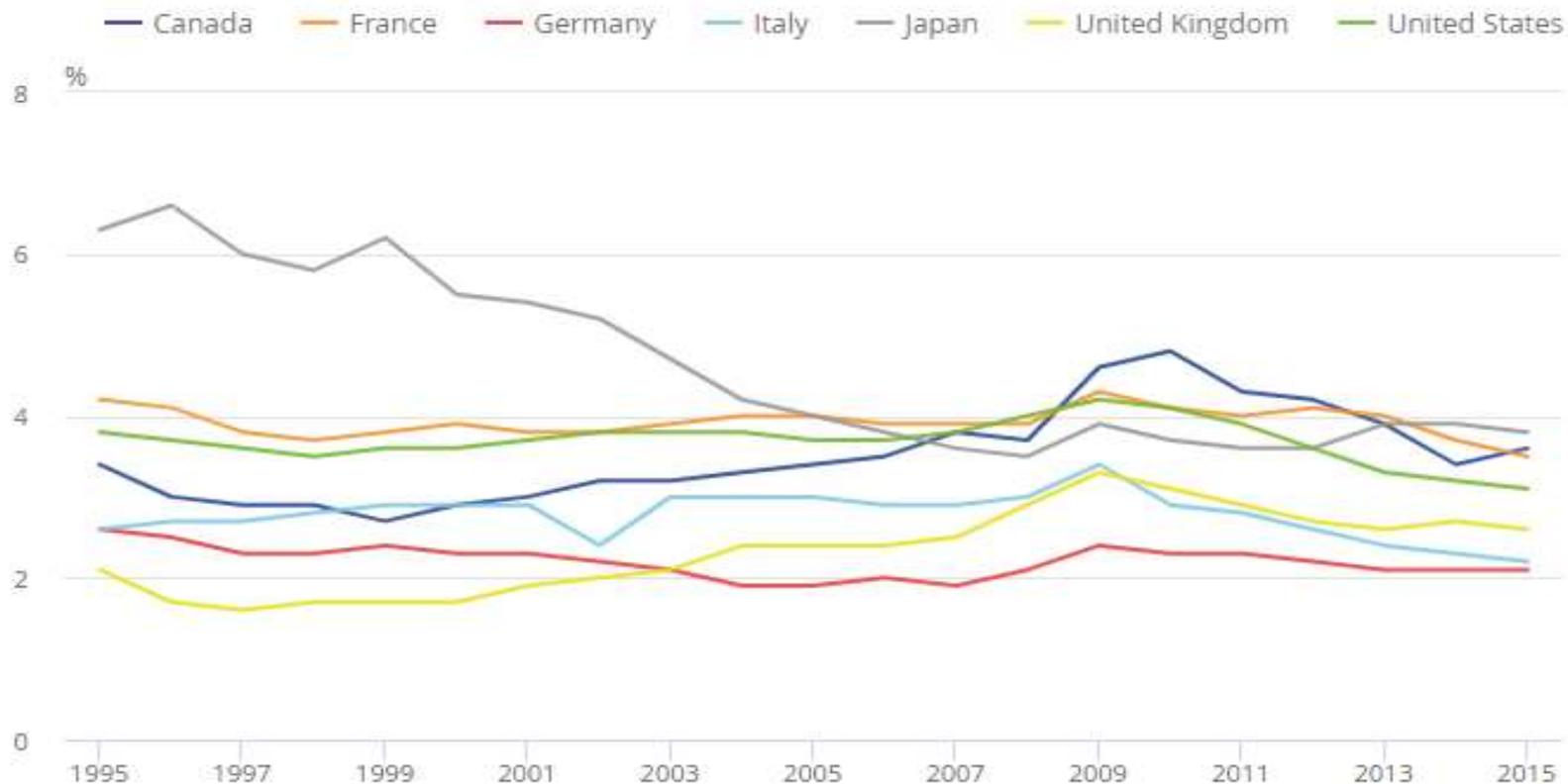
Problems with the data

- Countries with high unemployment (like France) may report higher average levels of productivity because only the most productive workers actually have jobs (the 'batting average' effect)
- Review of UK Economic Statistics led by Charlie Bean (2016) suggested that proper recording of digital economy could add $\frac{1}{3}$ - $\frac{2}{3}$ % to annual GDP growth
- The ONS has recently acknowledged big problems in the measurement of prices and output in the telecoms sector (likely to result in upward revisions to historic GDP data next year)

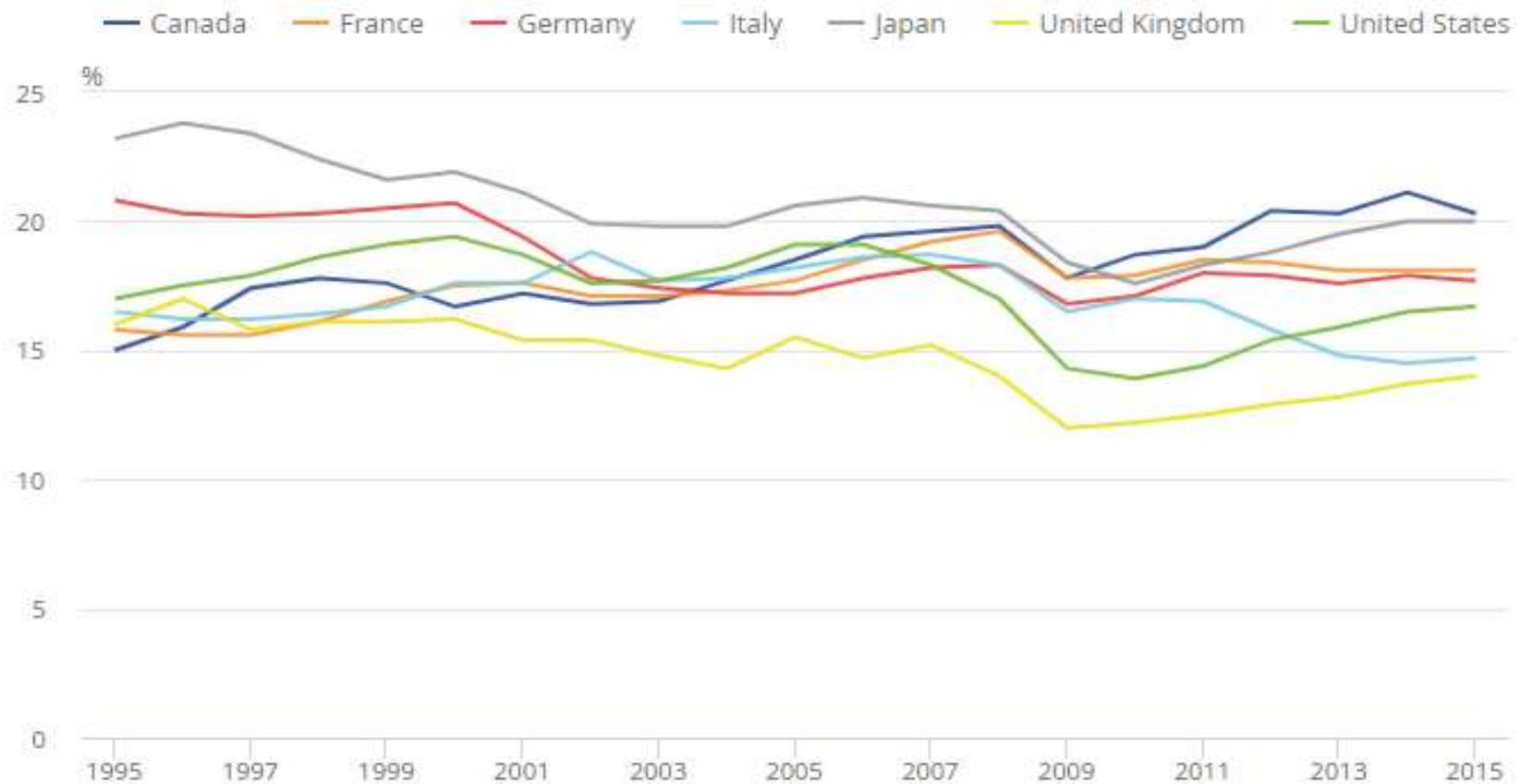
Global explanations

- **Structural/permanent**, especially 'secular stagnation' (diminishing gains from automation and IT)
- **Cyclical/temporary** (legacy of GFC)
 - Plenty of unemployed, cheap workers
 - Nervous businesses reluctant to invest
 - Weakened banks reluctant to lend
 - Low interest rates keeping 'zombie' firms going
 - Public sector austerity, especially capital spending

Government Investment in G7 (as % of GDP) (relatively low in UK, but even lower in Germany)



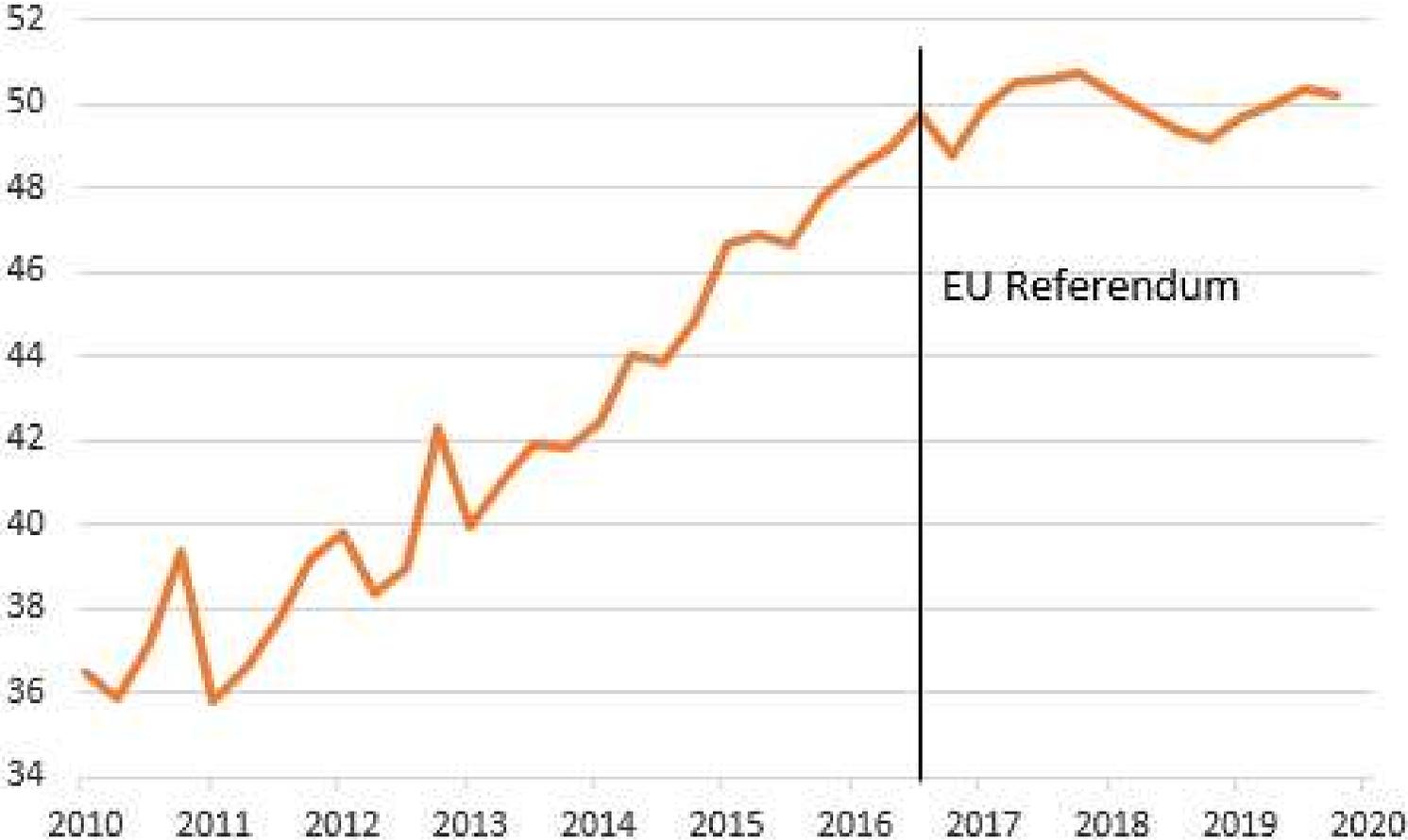
Non-Government Investment in G7 (as % of GDP) (consistently lower in the UK)



Possible reasons why the UK might have lower productivity

- Low rates of investment
- Services-driven economy
- Large financial sector ('the finance curse')
- Relatively flexible labour market (encouraging more use of labour and less of capital)
- Increased taxes and regulations in key sectors, notably financial services and energy

UK Business Investment (£bn, 2016 prices)



Government-based solutions

- Increased public investment in physical infrastructure and 'human capital' (education and skills training)
- Strategic government involvement in key sectors, especially manufacturing
- National Investment Bank to supplement/replace private lending by 'short termists' in the City
- Taking equity stakes in smaller companies
- Direct intervention to raise wages (e.g. set the 'National Living Wage' at £15 per hour) to encourage firms to invest rather than rely on 'cheap labour'

Market-based solutions

- Facilitate ‘creative destruction’ and disruptive technologies (governments tend to protect incumbents)
- Lower and simpler taxation, and benefit reform
- Deregulation, e.g. liberalise planning laws to ease housing crisis and improve labour mobility
- Market-based reforms of public services, e.g. NHS (borrowing on best practice elsewhere in Europe)
- Reduce barriers to international trade, cross-border investment and migration (? Brexit ?)

My conclusions

- Productivity has slowed globally, so we should start with global explanations – notably the GFC
- Much of the slowdown is cyclical and temporary
- The degree to which the UK has under-performed is often over-stated
- There are no simple answers that fit all the international evidence; probably need a mix of government- and market-led solutions
- This puzzle isn't easily solved!

Three questions for debate

1. What does the growth of the 'gig economy' (lots of short-term contracts rather than permanent jobs) mean for productivity?
2. Should the government take action to encourage a four-day working week?
3. How might the Covid pandemic affect UK productivity? in the short term and the long term?

1. The 'gig economy' and productivity

↓ Workers may feel less secure and less happy, or rush tasks, and this could harm productivity

↓ Firms might be less willing to invest in training etc. if workers might simply take skills elsewhere

↑ Firms can better match supply and demand, without having staff waiting around or overworked

↑ Workers can move more easily to more productive (and higher paying) jobs, and most value the extra flexibility

2. The four-day working week

- People working shorter hours may produce more *per hour*, and are happier too
- But hourly productivity has to increase sharply (as much as 25%) if someone is going to produce as much in 4 days as 5 – and still expect to earn the same
- This may be possible in some companies, but not across the economy as a whole (and especially not in public services like the NHS)
- A decision best left to employers and employees?

3. Coronavirus and productivity: the short term

- Output *per worker* collapsed by about 19% q/q in Q2 (April-June), mainly due to people on furlough still being counted as employed
- Output *per hour actually worked* also fell, by about 2%, partly for the usual cyclical reasons but also because of the constraints of social distancing etc.
- Productivity fell particularly sharply in the public sector, especially education and health, where employment was relatively stable but schools were closed and hospitals treated fewer patients

3. Coronavirus and productivity: the long term

↓ An increase in unemployment, especially among young people, could lead to permanent skills loss

↓ Business investment has fallen sharply and firms may be more reluctant to provide training

↑ ‘Creative destruction’ might finally finish off zombie firms that are holding back productivity

↑ More positively, the pandemic should accelerate the trends towards more flexible working