



Institute  
and Faculty  
of Actuaries

# Life Conference 2023

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# The Economic Outlook

Roger Bootle



# 1. Agenda

- The global environment.
- The UK in perspective.
- The outlook for inflation.
- Prospects for interest rates and bond yields.
- Political factors and the risk of war.
- AI and economic growth.
- Conclusions.

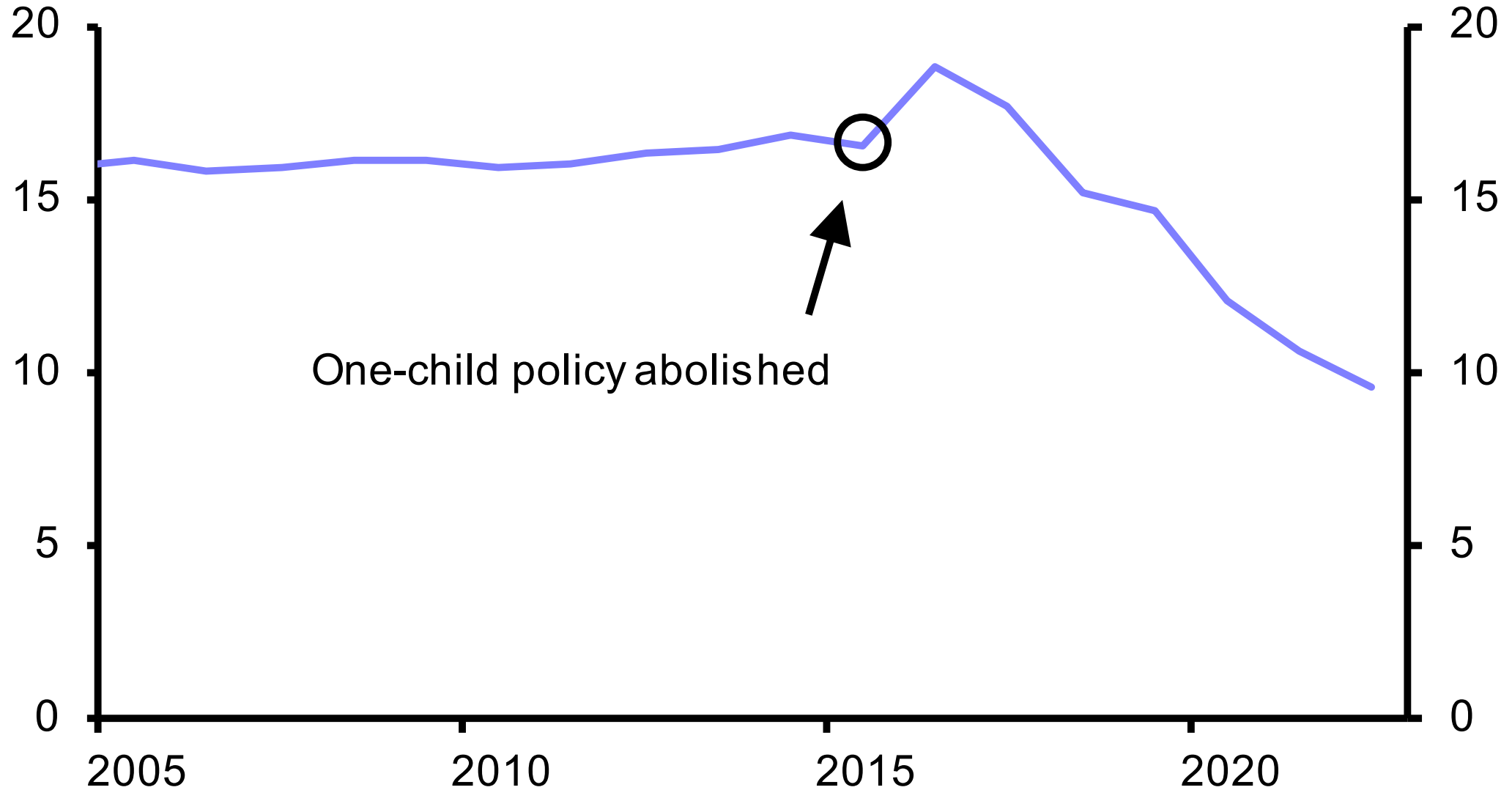


## 2. The Global Environment

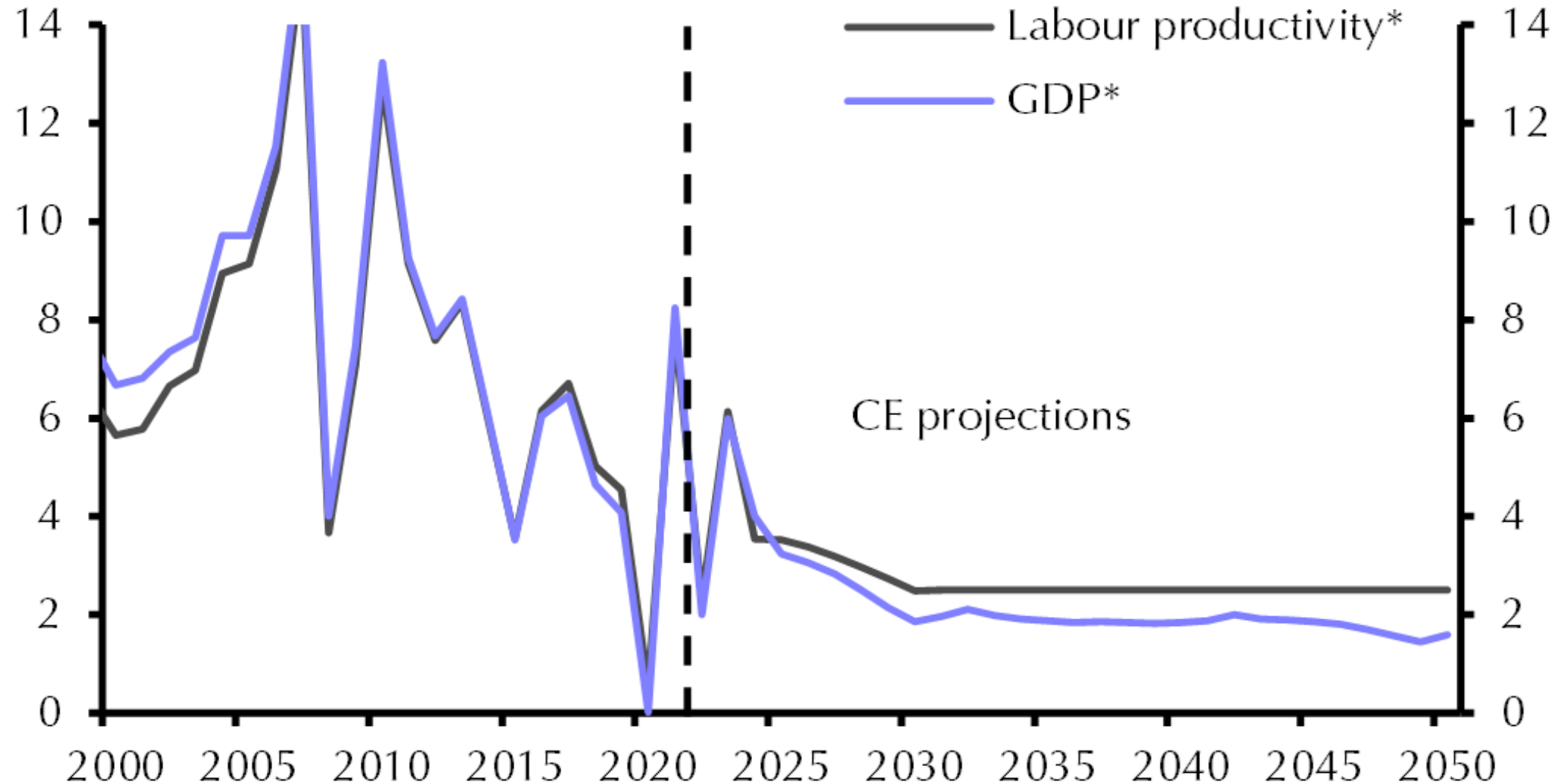
- Major geopolitical uncertainties but our assumption is no generalised hot war and no further spike in energy prices.
- Globalisation had probably peaked before Covid. It has gone into reverse - as has happened before.
- The world is dividing into blocs led by China and the US.
- Fractured trade patterns, and duplicated technologies.
- The global financial system is fragile.
- China is nearly at its peak. India to overtake.



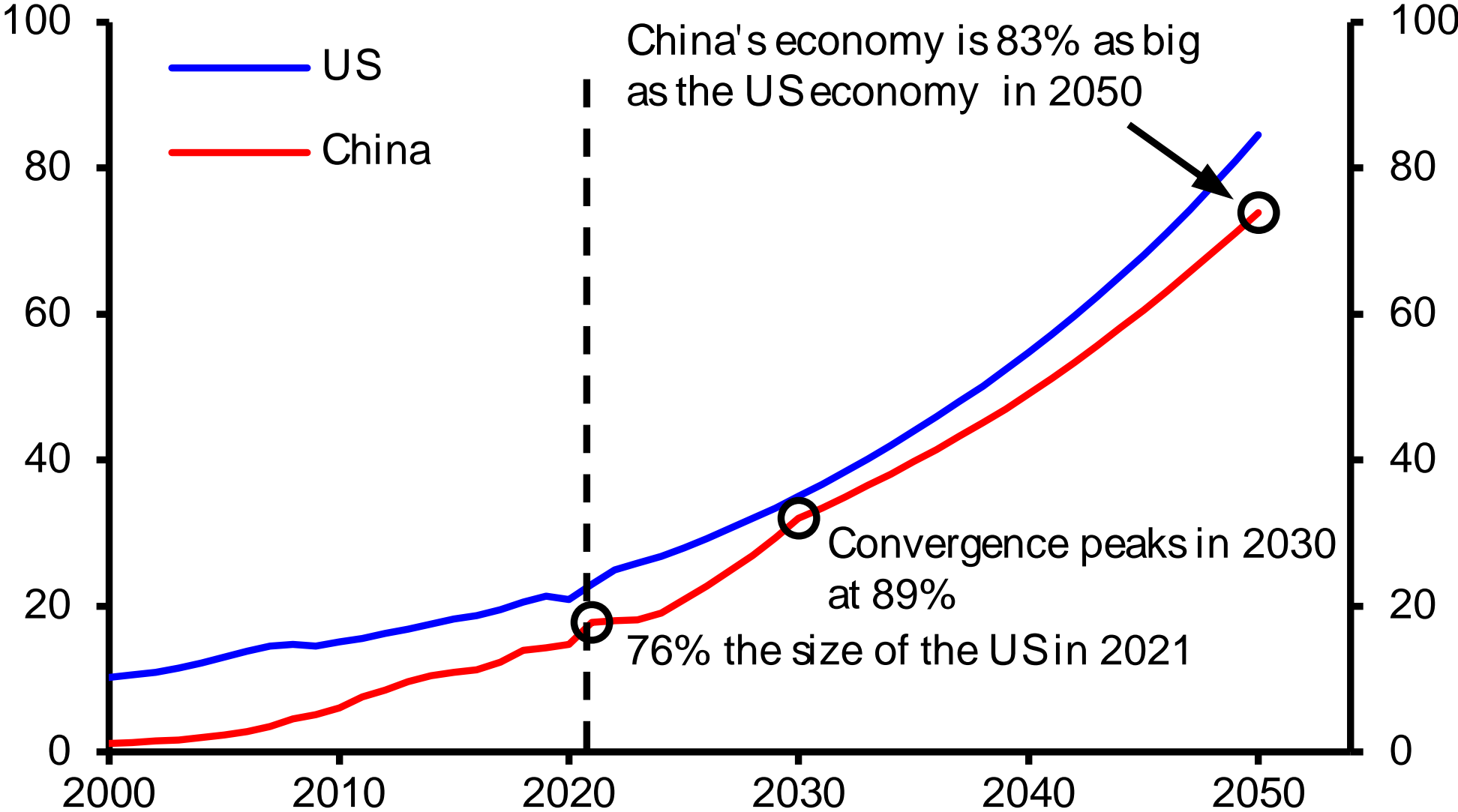
# 3. The Number of Births Each Year in China (2005-2022)



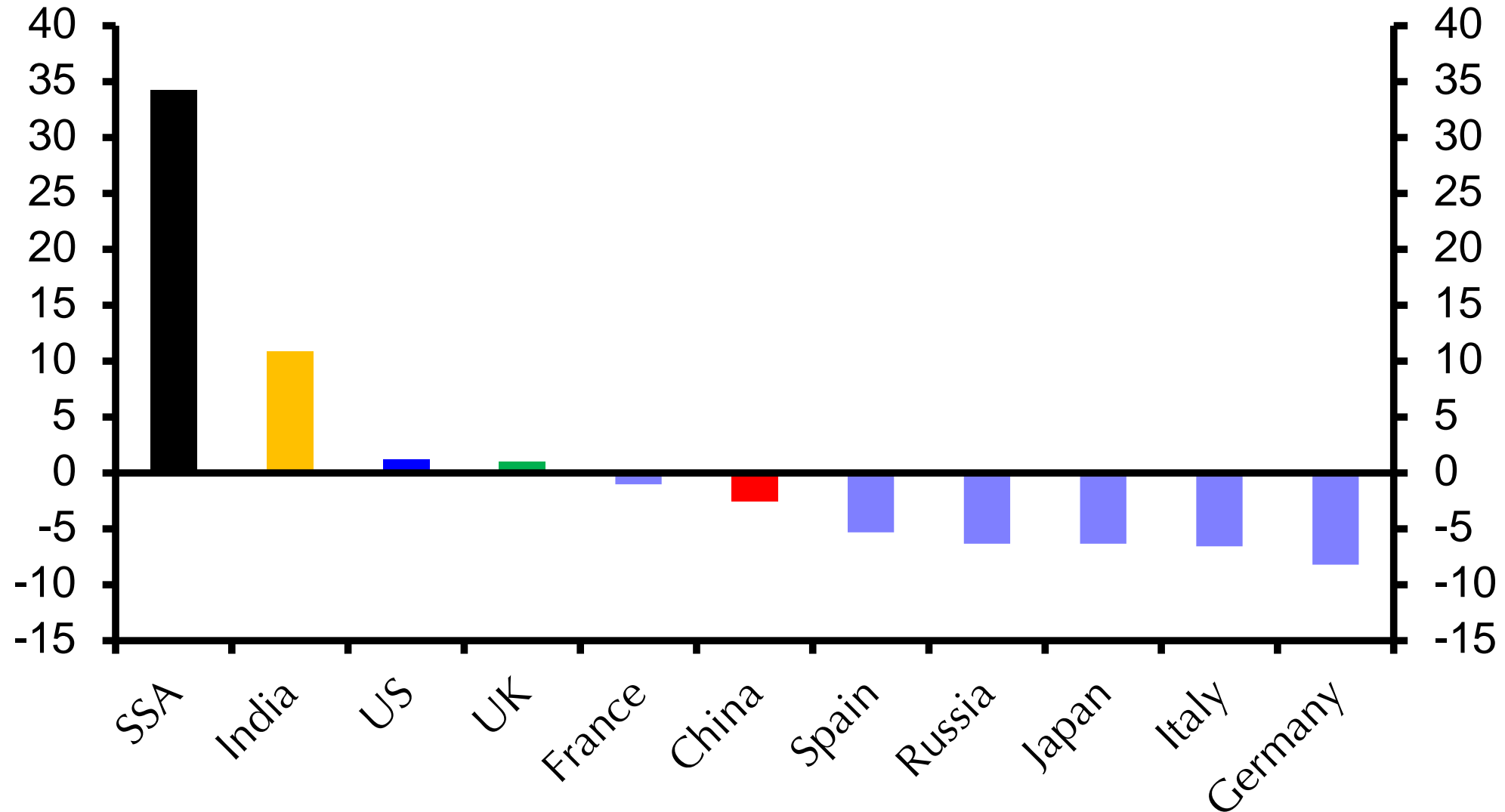
# 4. China: Labour Productivity & GDP (% y/y, 2000-2050)



# 5. CE Projections for US & China GDP (market exchange rates, \$trn)



## 6. The Prospective Change in Working-Age Population (15-64), %, 2020-2030





## 7. Global politics

- Capitalism is unpopular in the west.
- Will the state become ever larger?
- America resembles the dying days of the Roman Empire.
- The EU has not developed into a proper state.
- Is democracy going to last?
- High chance of military conflicts.

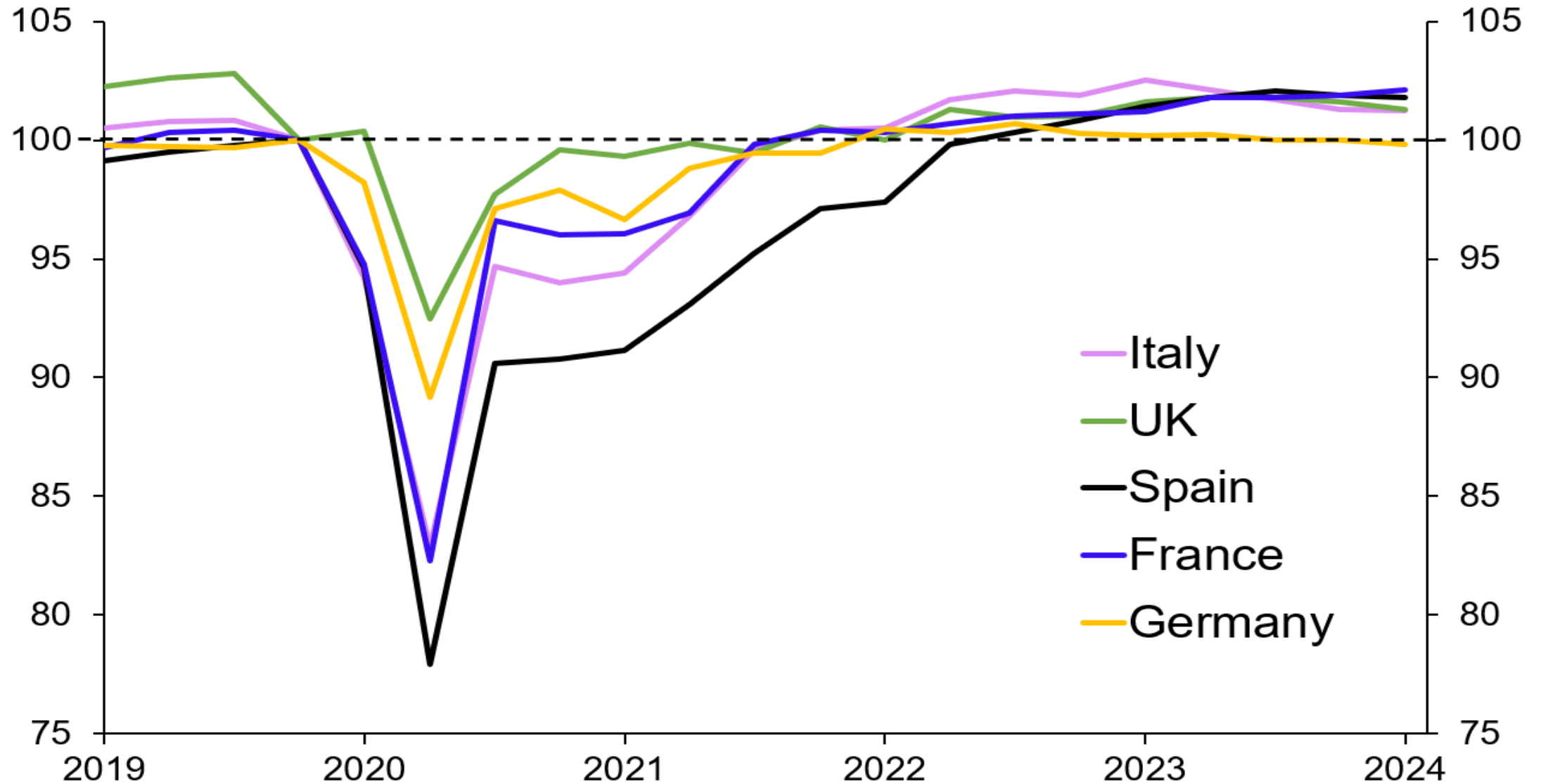


# 8. Predicting conflicts

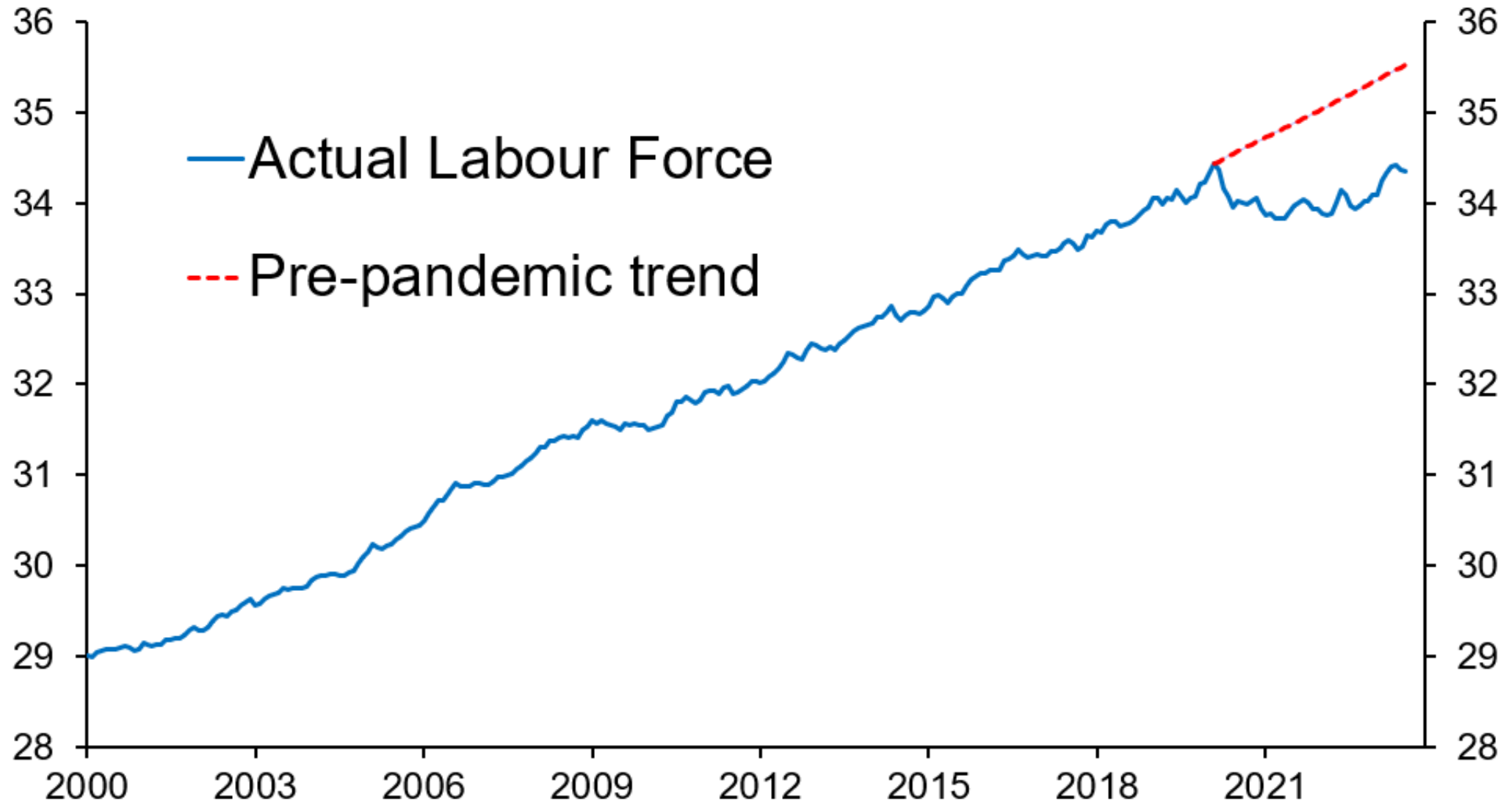
- The apparent triumph of democracy in 1989-91 was an illusion.
- The world is riddled with conflicts.
- Economists and markets are not good at predicting wars.
- How can you rationally assess the chances of a devastating war – or its effects? Assume that it isn't going to happen?
- Before WWI Russia was the leading emerging market.
- If there is a nuclear war, everywhere will be affected.
- The volcanic eruption on Tambora in 1815 changed the climate and caused famine. A nuclear war more damaging.



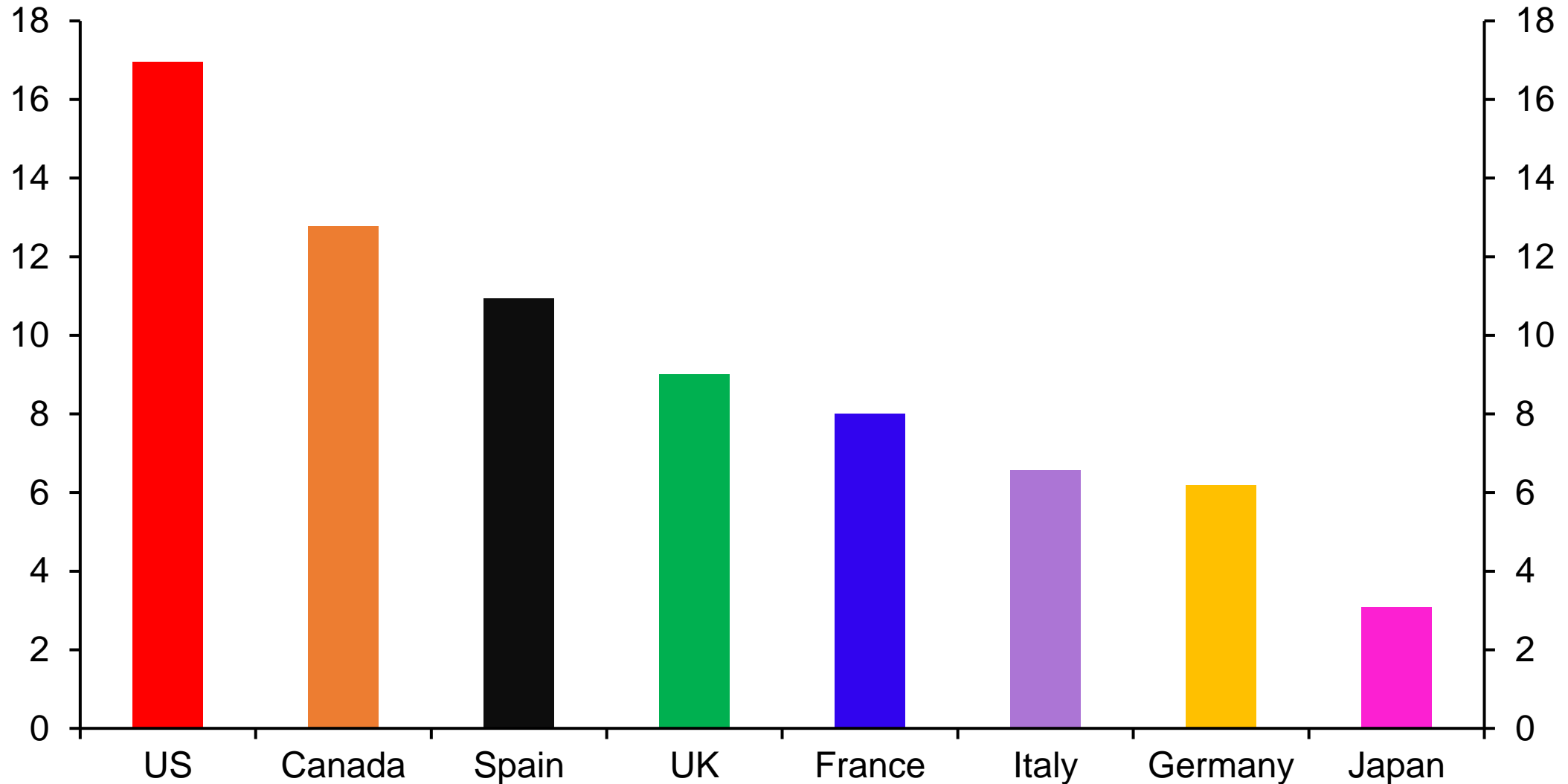
# 9. Recovery from the Pandemic, 2019-2024 (Q4 2019 = 100)



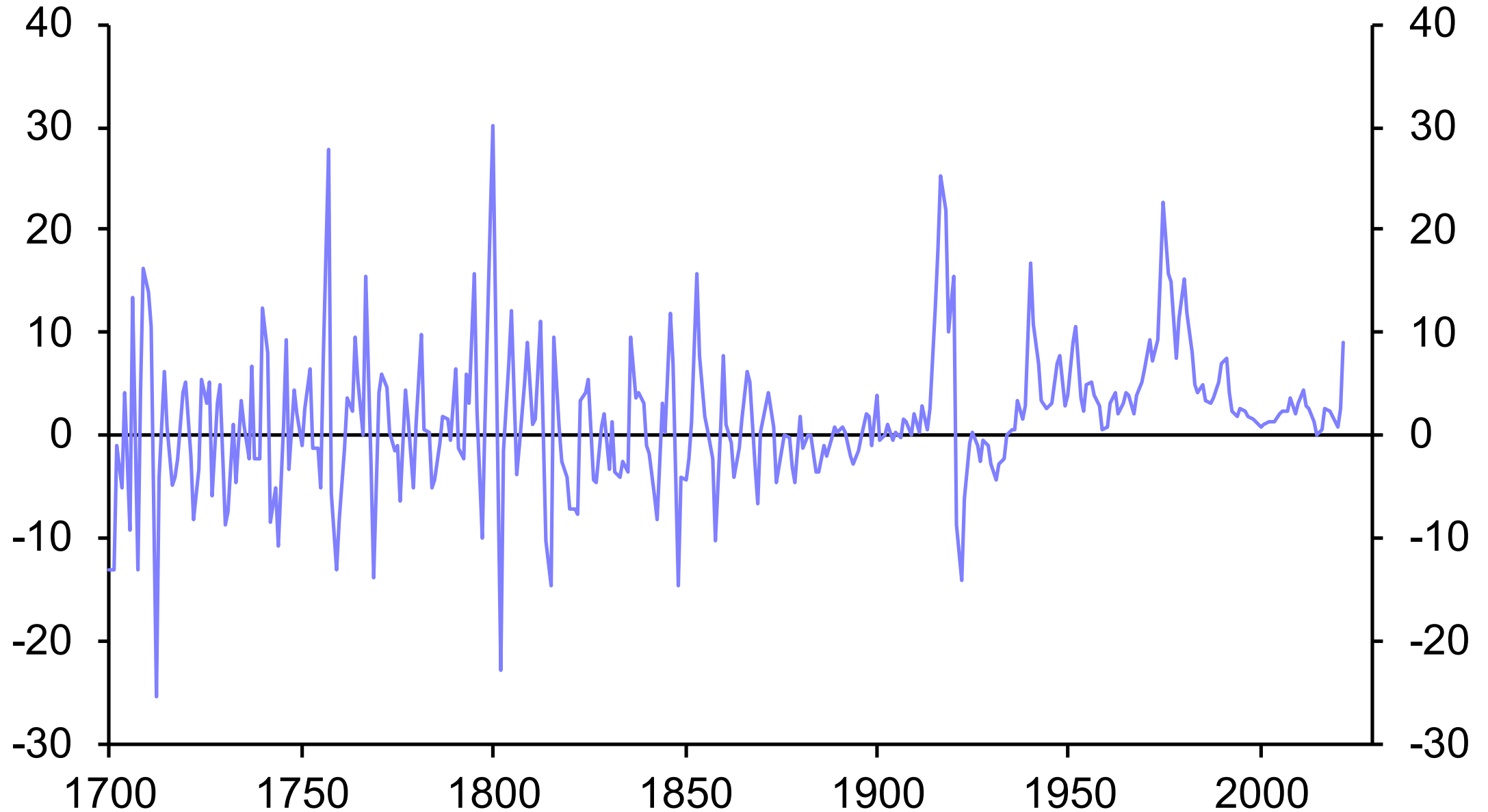
# 10. UK Labour Force (Millions, 2000 - 2023)



# 11. Cumulative Growth Rate (% change in GDP, 2016-2023, Q2)



# 12. Long-term Inflation (1700 – 2022)



# 13. Why the recent inflation upsurge?

- Expansionary fiscal and monetary policy and central bank errors.
- The after-effects of Covid and lockdown on costs.
- The fading of previous anti-inflationary forces.
- Institutional factors favouring inflation.
- The Russia/Ukraine war.



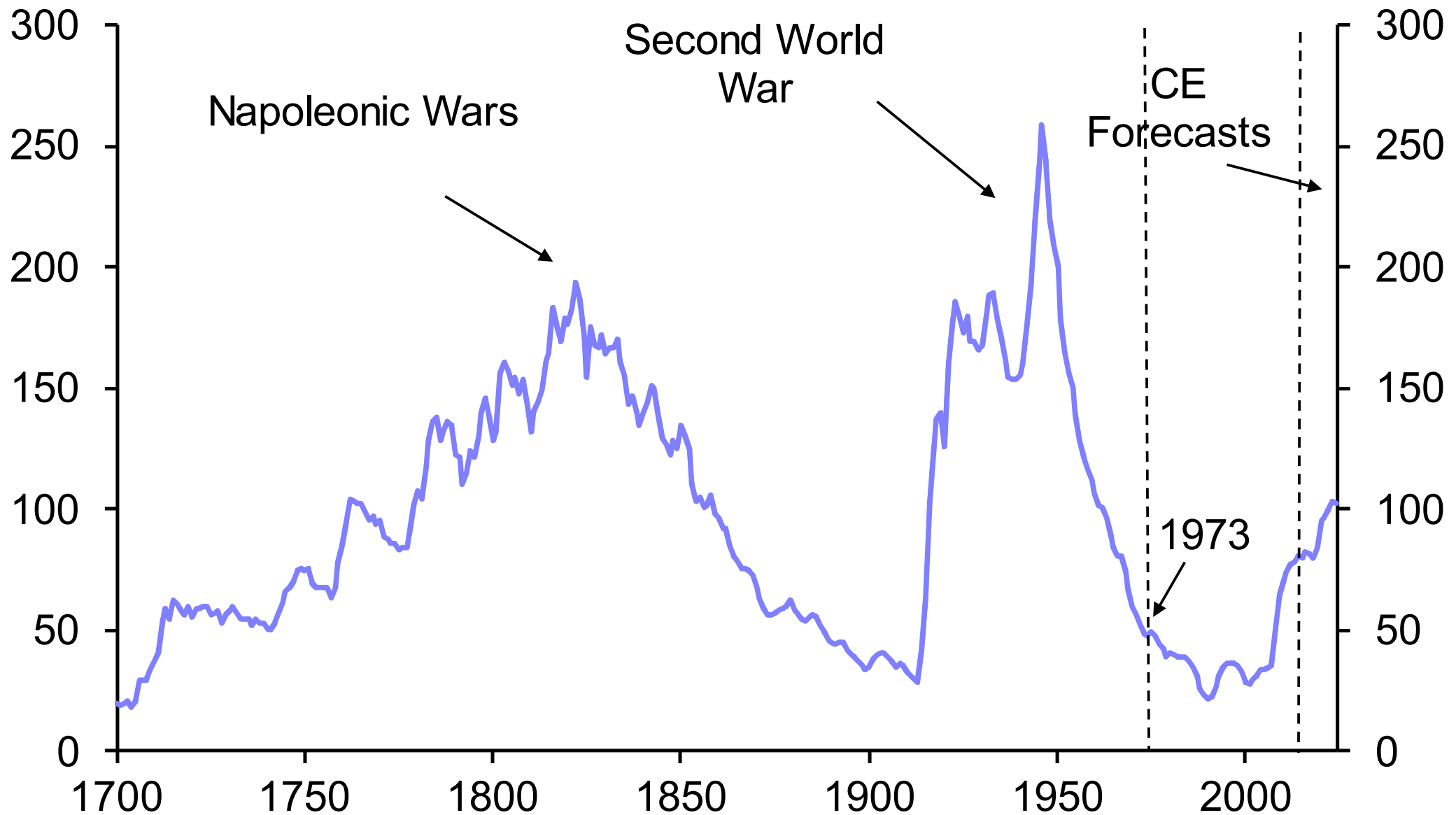
# 14. Factors Affecting Inflation now

- Any backsliding on globalisation is bad for inflation.
- A shortage of workers in the developed world will push up inflation.
- Similarly, moves to combat climate change and to favour sustainability and self-sufficiency.
- But AI is a major disinflationary force.
- Probably best to assume 2-3% inflation p.a. over the medium-term.

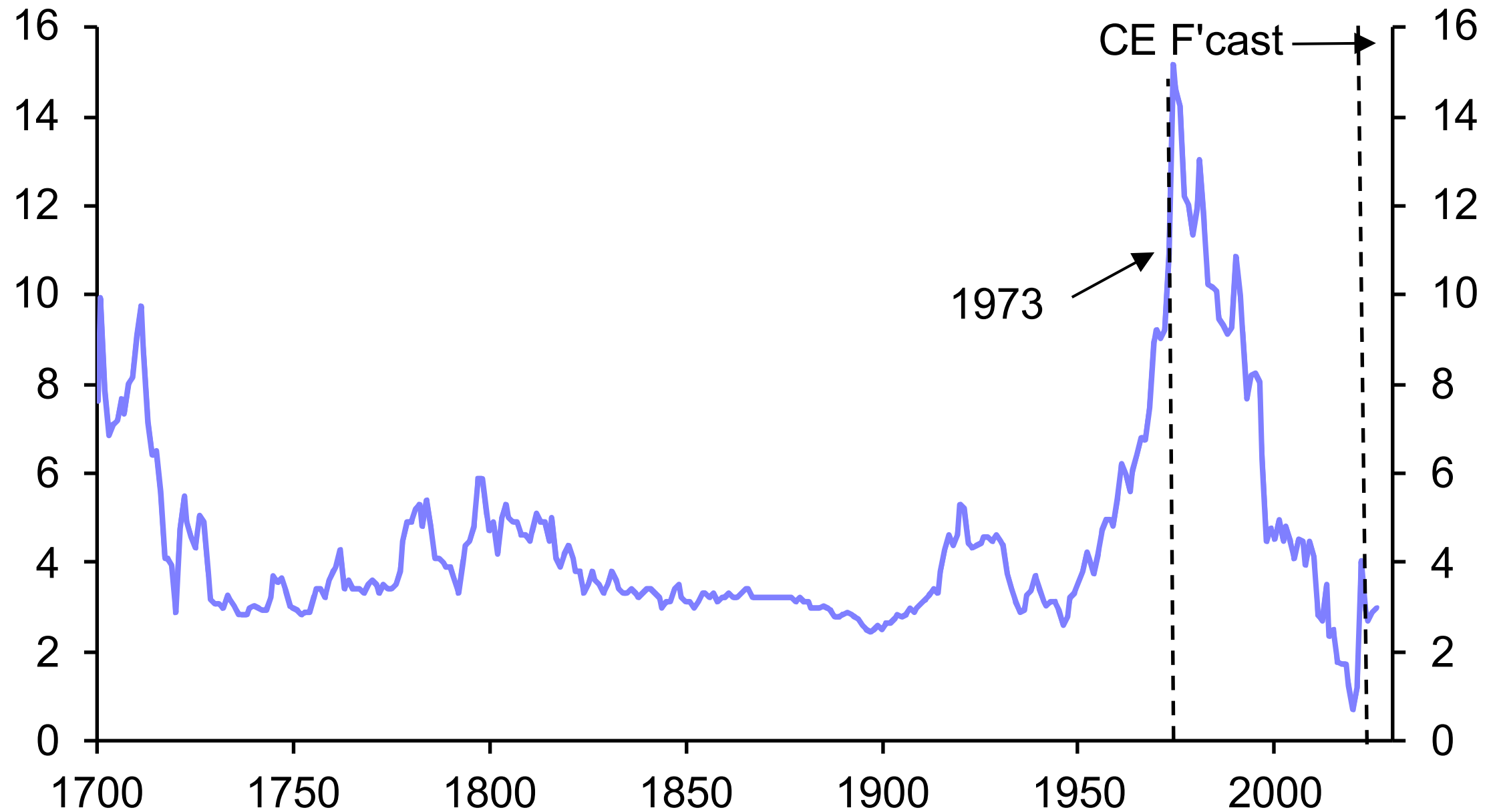




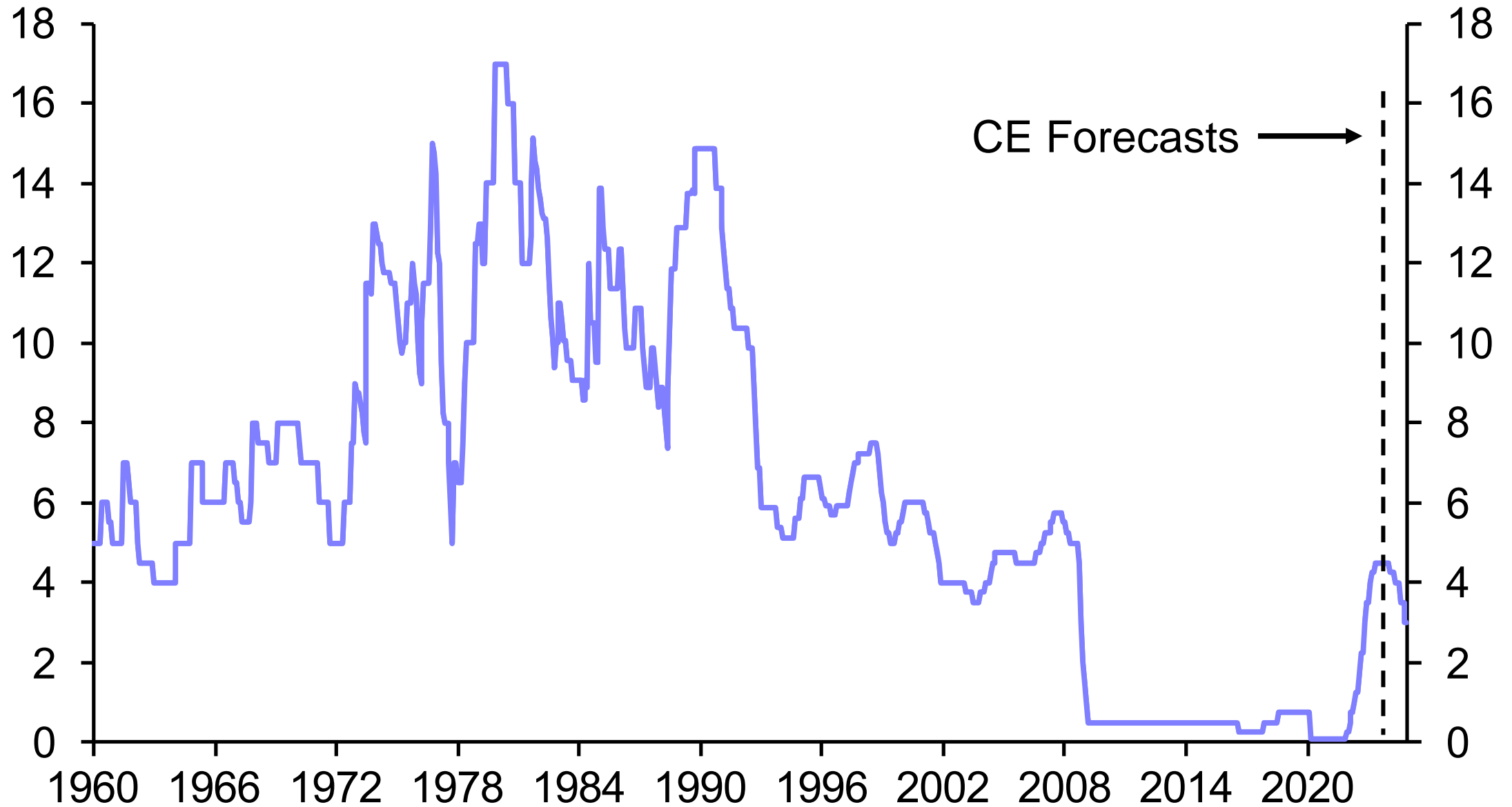
# 15. UK National Debt (% of GDP, 1700 – 2026)



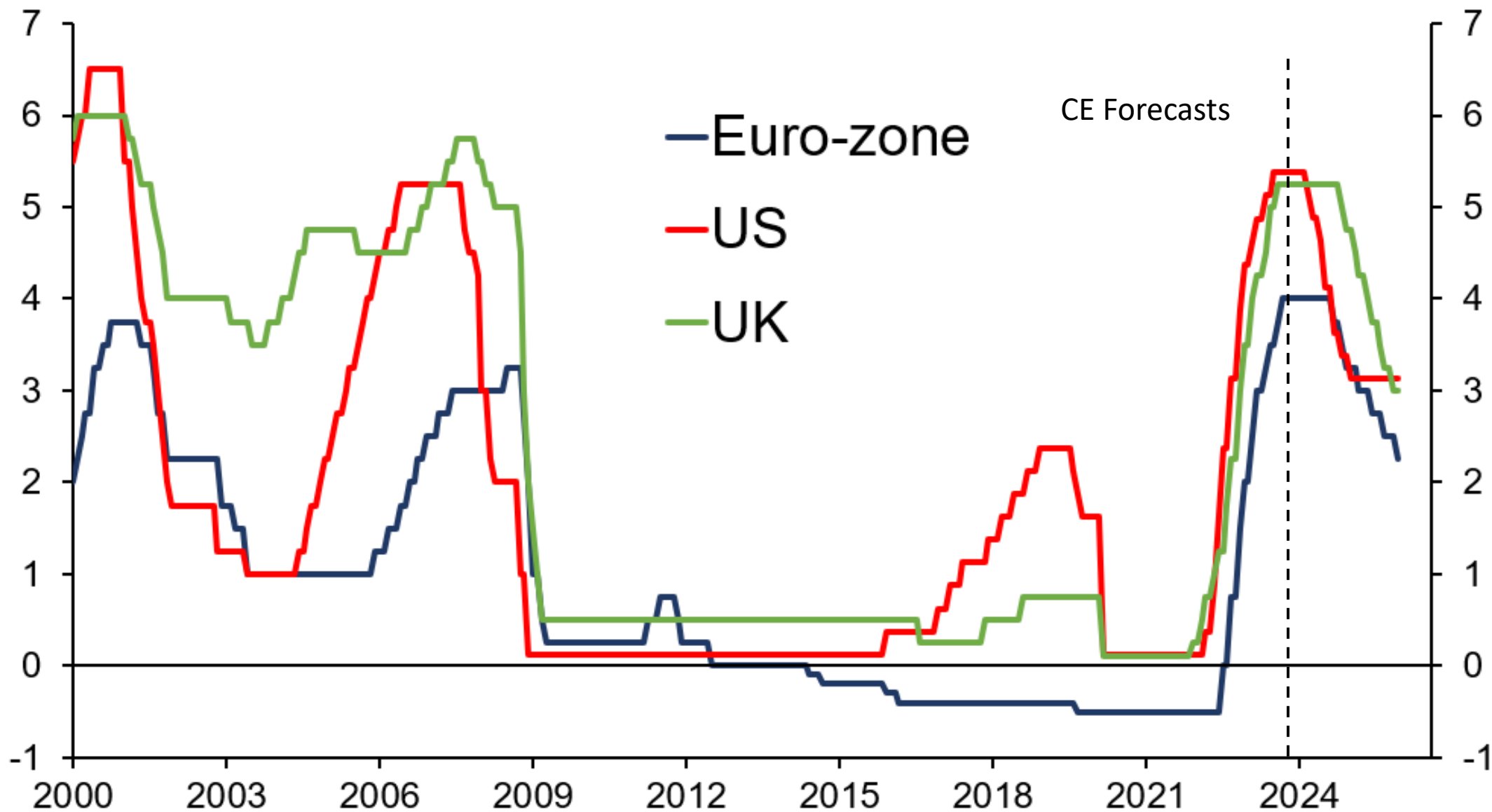
# 16. Long UK Government Bond Yields (1700-2026)



# 17. UK Bank Rate (1960 - 2024)



# 18. Policy Interest Rates (% , 2000 - 2024)

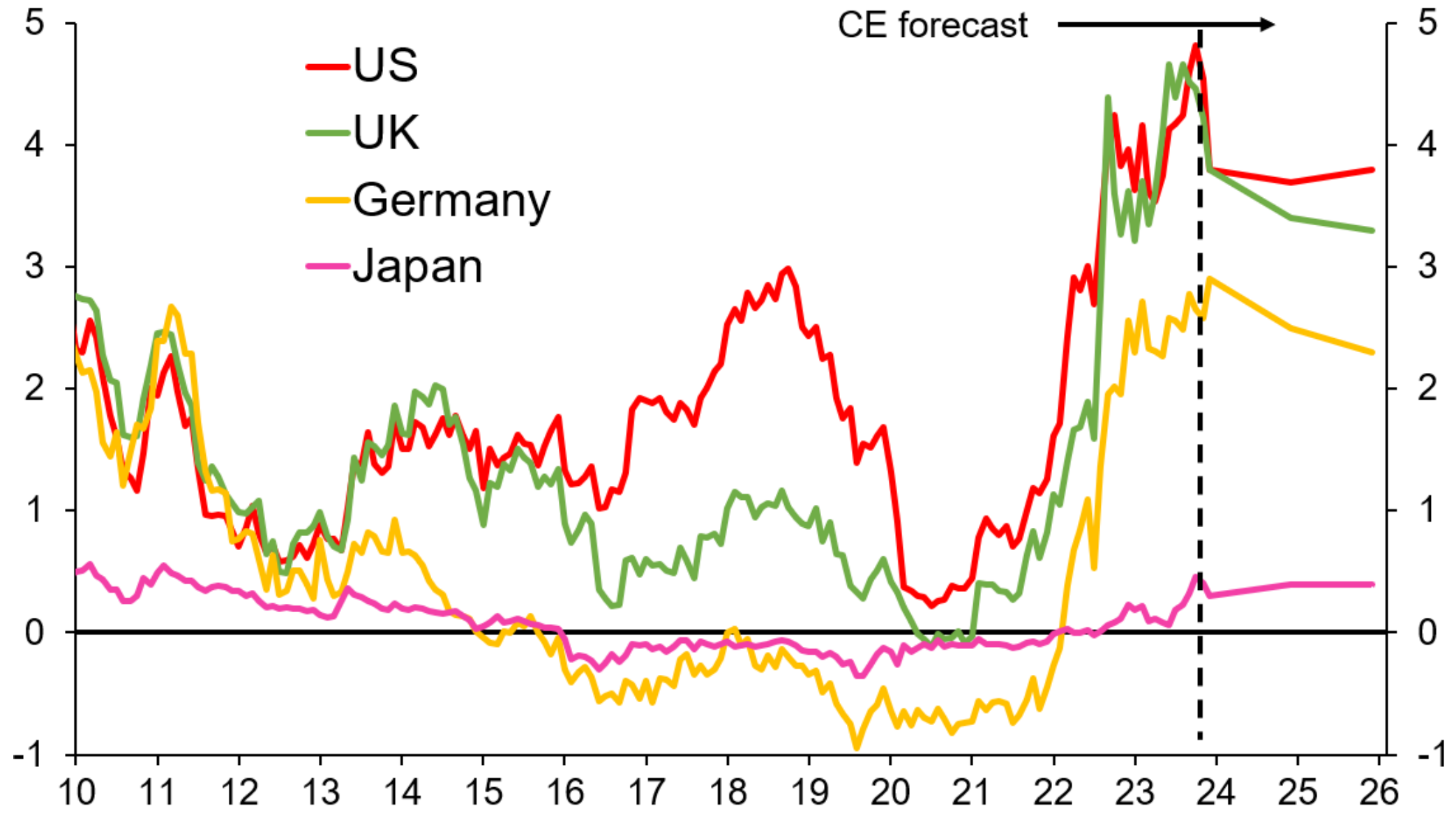


# 19. Interest Rates and Yields

- Recent zero and sub-zero interest rates are an historical aberration.
- It is widely believed that central banks over-did things - with damaging consequences.
- Official interest rates in future will probably lie in the 2-6% range in normal times.
- Bond yields will be driven by inflation and official interest rates. Something like 3-5% in normal times.



# 20. 5-year Government Bond Yields (%), 2010-2025

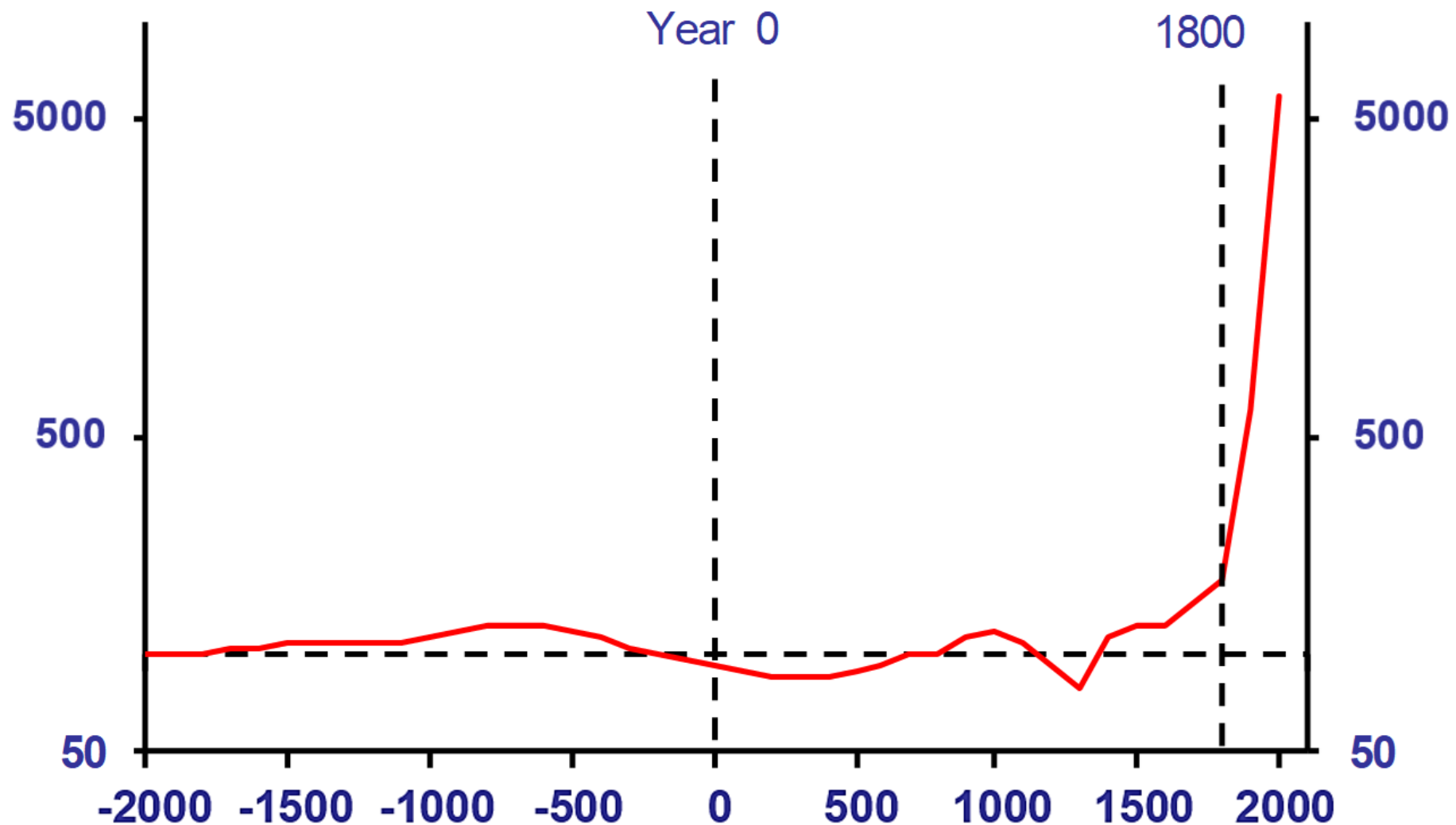


# 21. The UK Political Scene

- A Labour Government looks likely.
- ..... but not inevitable.
- In economic terms, it will not be that bad.
- More Blair/Brown than Corbyn/McDonnell.
- In particular, no significant tax rises.
- More worries about wokery.
- Edging back towards the EU?
- Scottish independence now a dead duck.



# 22. GDP Per Capita 2000BC – 2022 (2000BC = 100, on a log scale)





# 23. AI and future economic growth

- AI is a transformative general technology.
- Such technological leaps take time to have full effect.
- And in the short-term, they can be perceived as negative as many people lose their jobs. But new jobs appear as if from nowhere.
- Jobs to disappear this time will be routine mental ones.
- Many of the new jobs will be in roles relating to people and their relationships.
- Other major technological advances, especially in life sciences.
- Don't succumb to growth pessimism!



# 24. Over-hyped and over here?

- AI has traditionally gone through feasts and famines.
- Are we close to the peak of inflated expectations?
- Robert Gordon calls LLMs nothing more than “stochastic parrots”.
- Certainly, LLMs are nowhere close to Artificial General Intelligence (AGI).

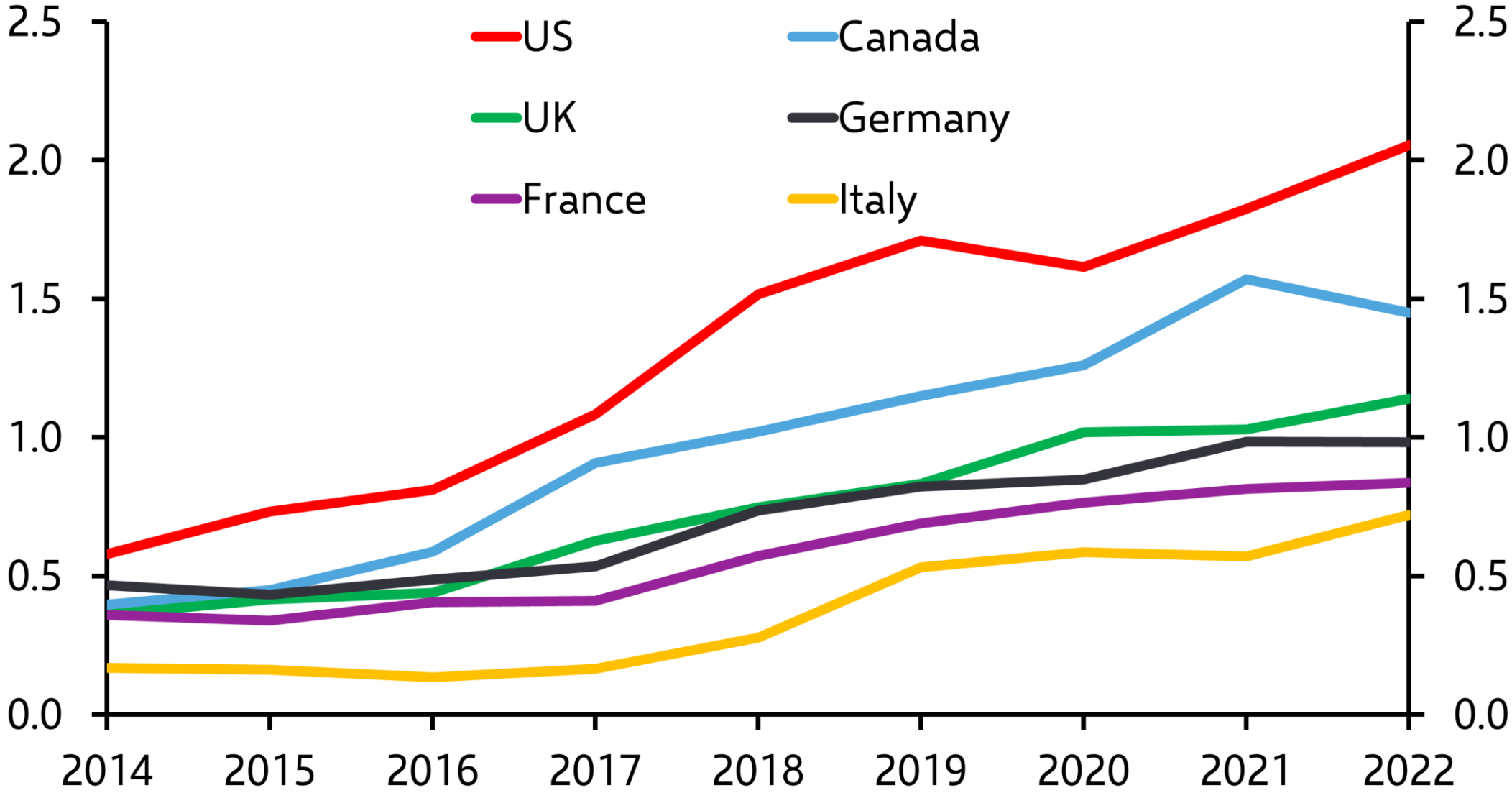


# 25. Different this time?

- Yet investment in AI was increasing dramatically even before the release of ChatGPT 3.5 last year.
- By contrast, there is not the same exponential growth in the use of industrial robots.
- The adoption of new technologies has speeded up?
- Whereas much of the impact of the digital revolution was on improving the consumer and leisure experience, AI seems likely to have a major influence on businesses, giving a boost to productivity.

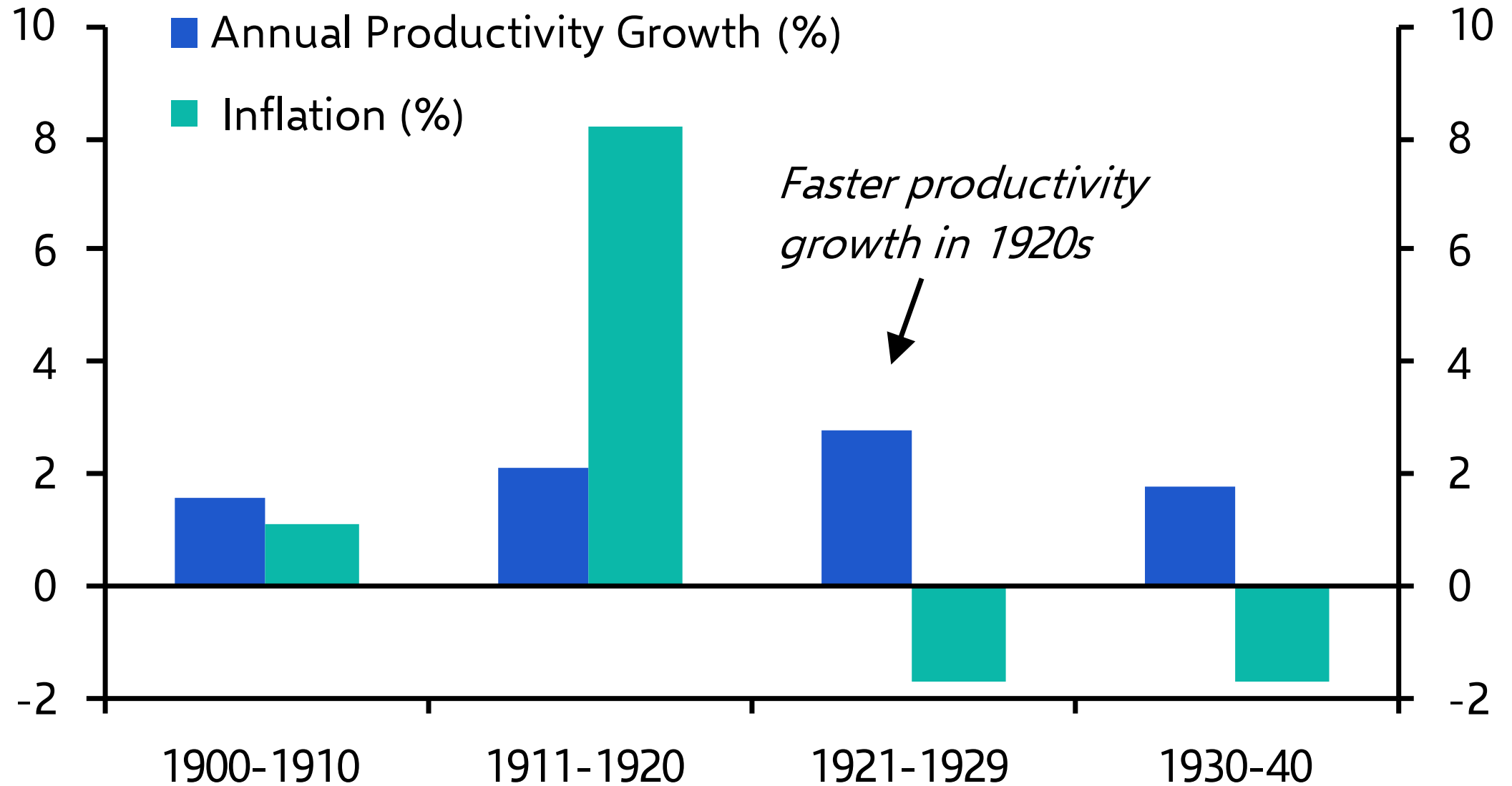


# 26. AI Job Postings (% of All Job Postings)

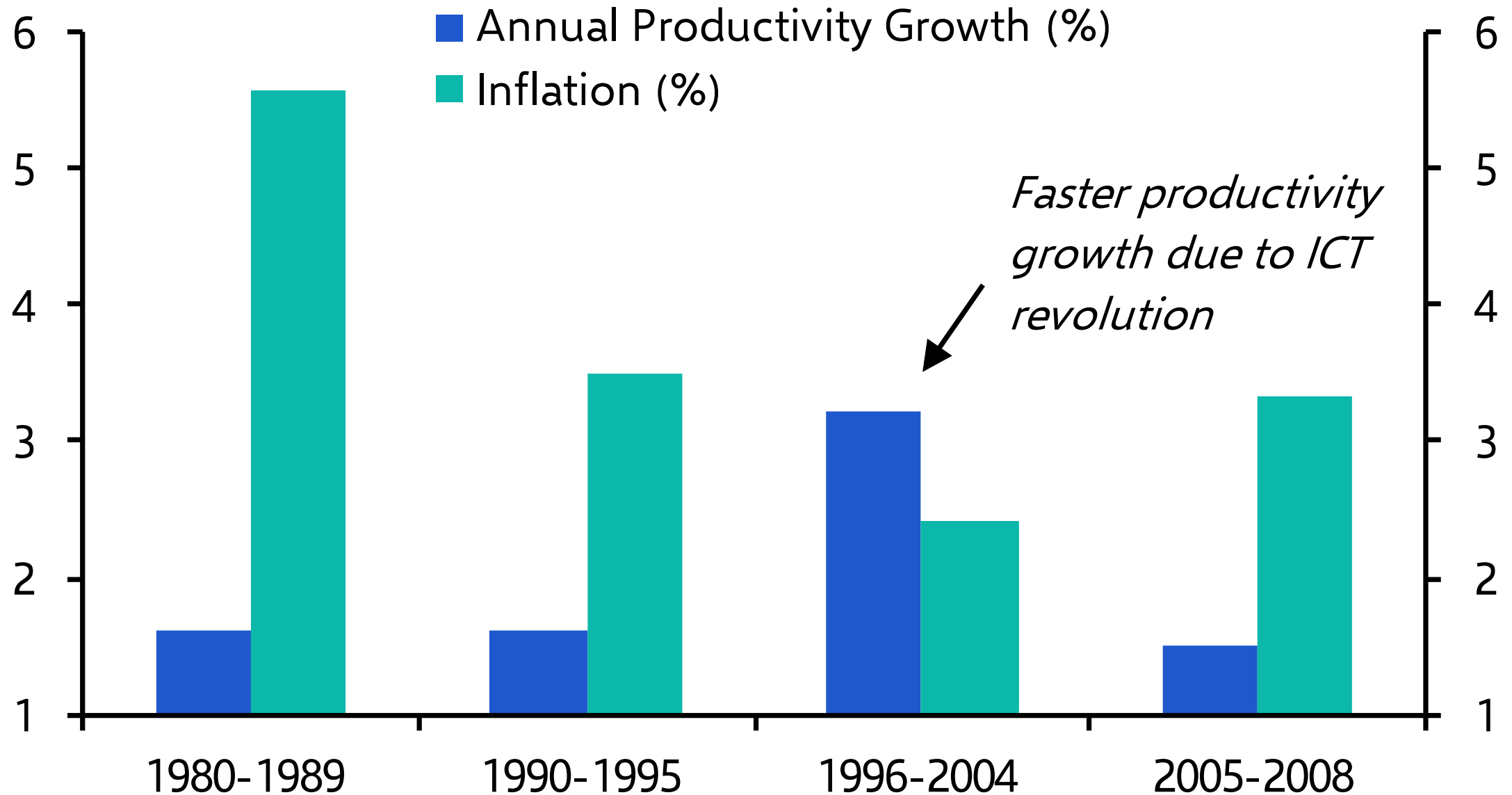


Sources: Lightcast, Stanford Institute for Human-Centred AI

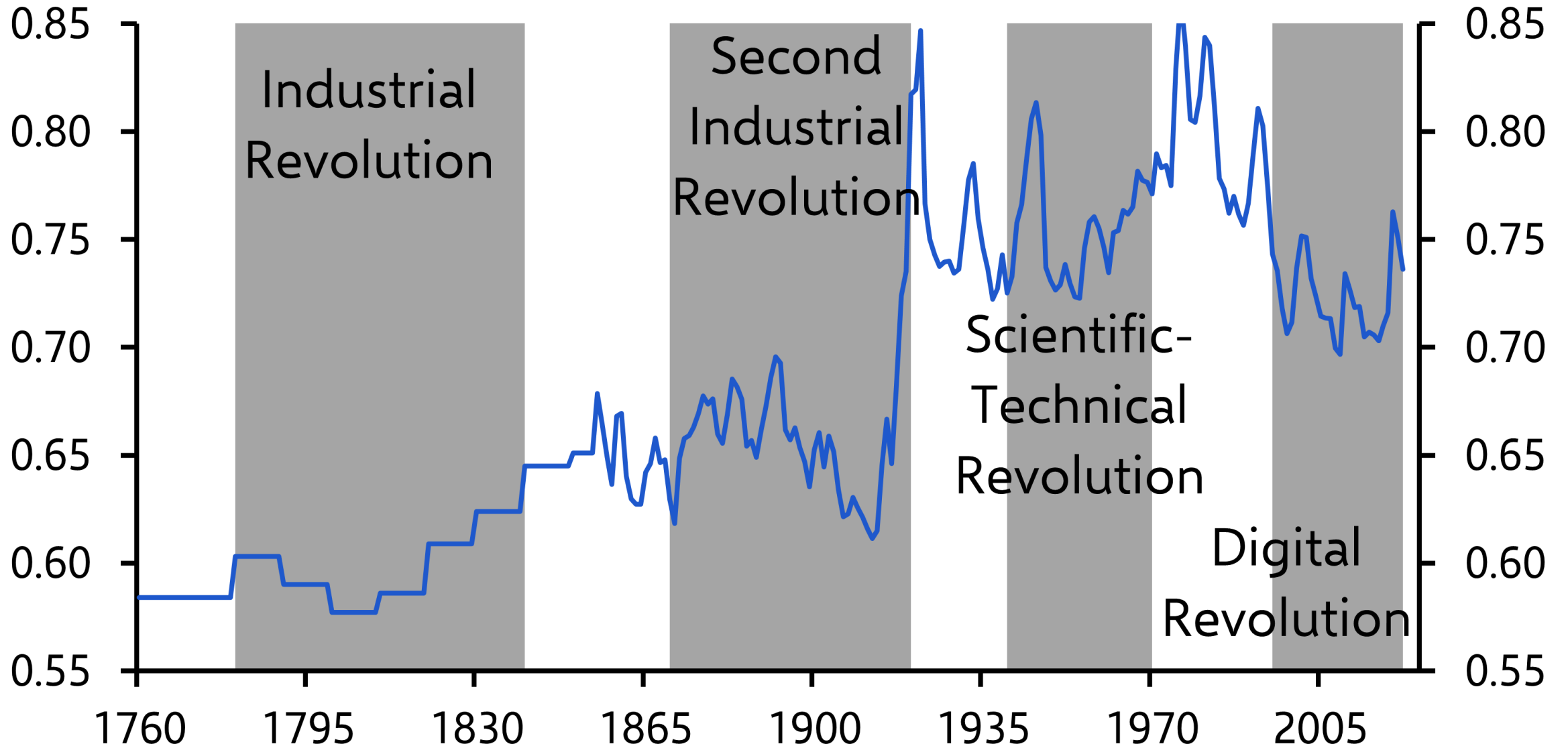
# 27. US Productivity Growth and Inflation



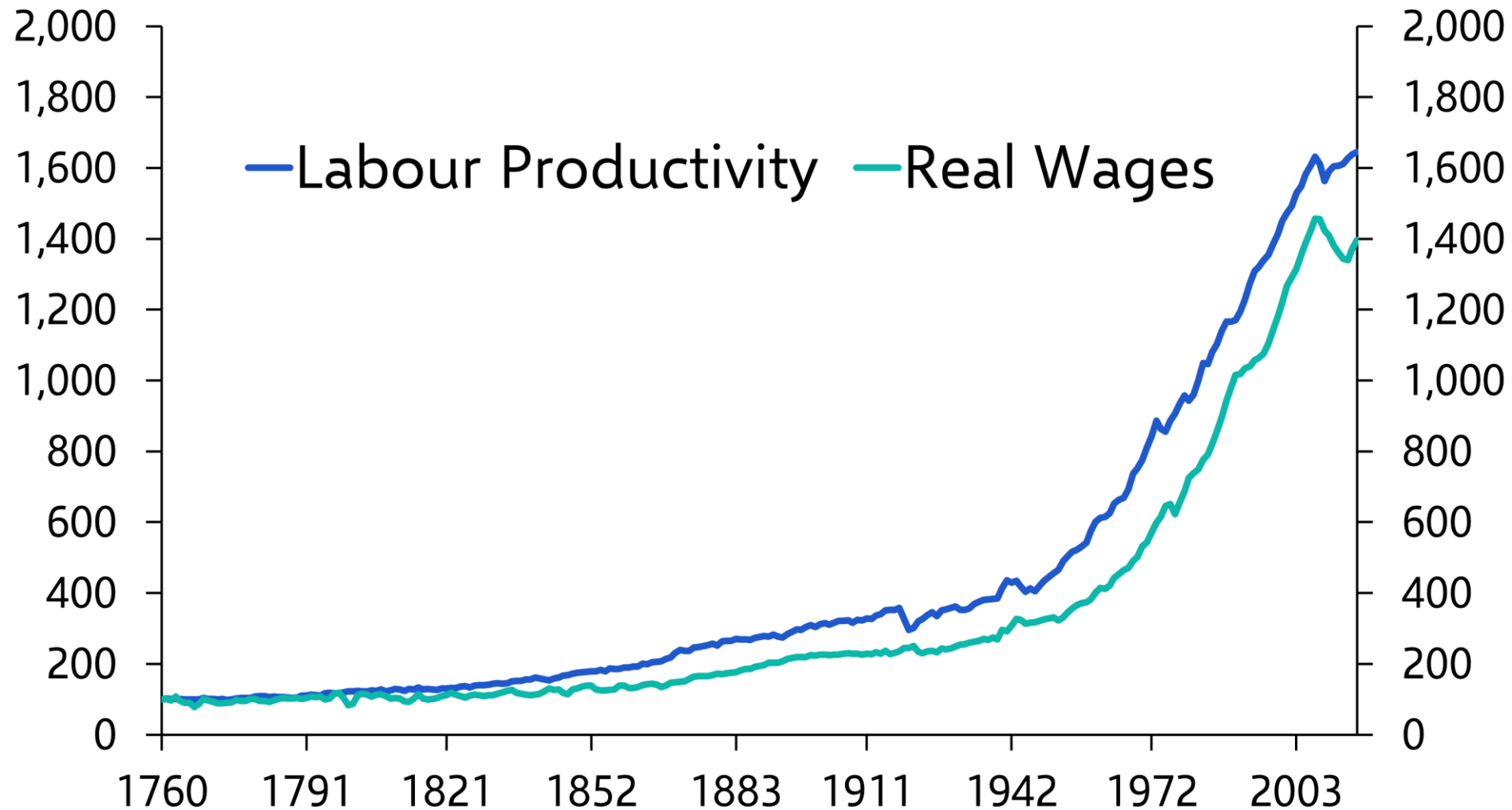
# 28. US Productivity Growth and Inflation



# 29. UK Labour Share (% of Income)

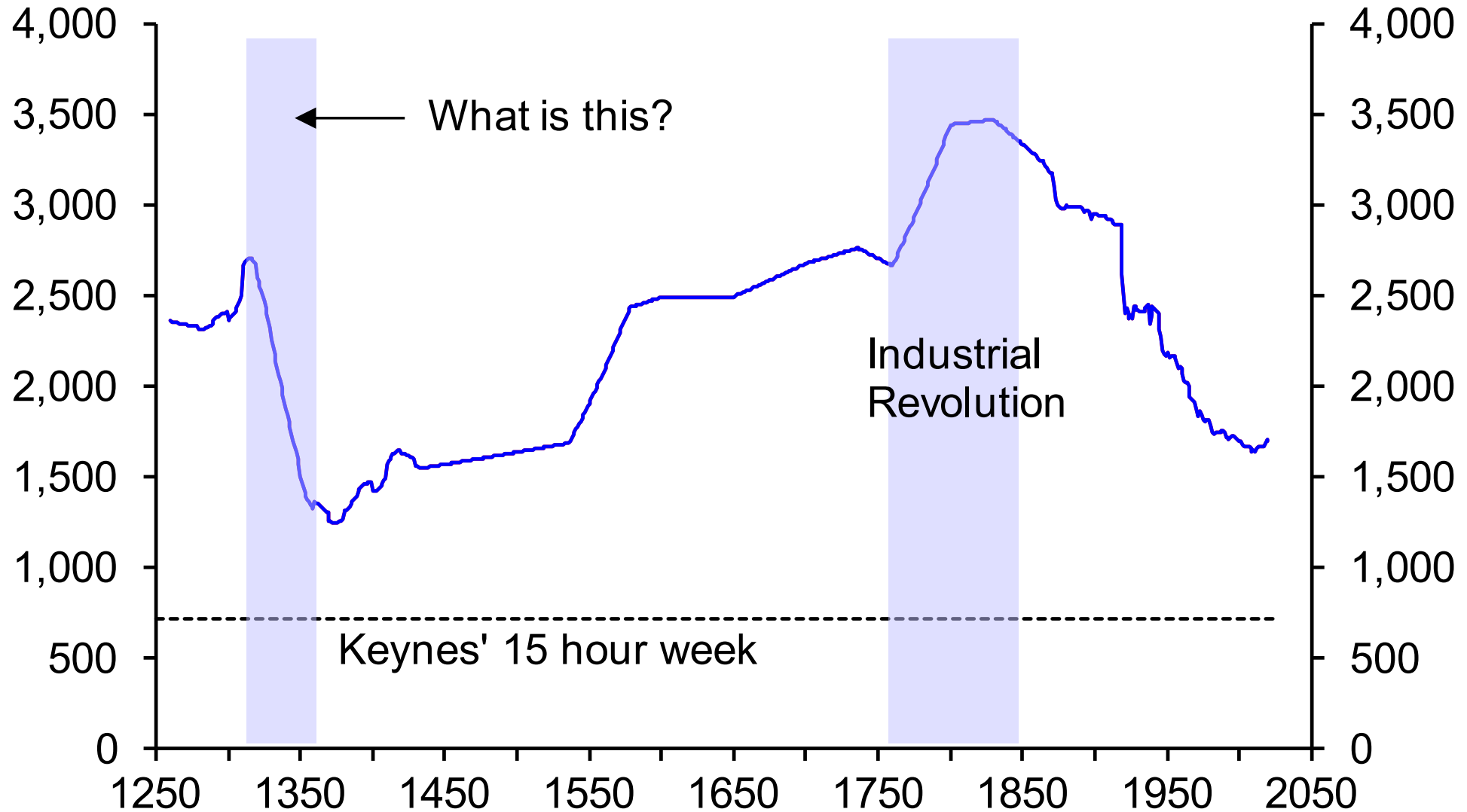


# 30. UK Real Wages & Labour Productivity, 1760 – 2022 (1760 = 100)





# 31. Average Annual Hours Worked in the UK (1250-2022)



## 32. Conclusions

- The world is dividing into two blocks, led by China and the US. Some military conflict likely.
- We are approaching peak China.
- The UK is not as badly placed as many assume.
- Best to assume 2-3% inflation over the medium term.
- Interest rates to settle in the 2-6% range.
- A Labour government is likely... but so what?
- AI will boost productivity and growth.
- Beware growth pessimism!





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# Thank you

