

The Economic Impact of Brexit

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1. Agenda

- Key OBR assumptions
 - trade
 - investment
 - migration
- A critique of doppelganger models
- Some communication problems
- Conclusions

2. Key OBR assumptions - trade

1. The volume of UK imports and exports will both be **15%** lower than if we had remained in the EU
2. The resulting reduction in the trade intensity will lead to a **4%** reduction in productivity (GDP per capita)
3. This drag will build over time and the full effect will be felt after 15 years (*this is just a guess!*)
4. The 4% figure does not take account of any gains from new trade deals with the rest of the world, or other potential Brexit benefits (partly because the OBR can only model *existing* government policies)

3. The underlying economics is sound

- Adam Smith: benefits of specialisation via the division of labour
- David Ricardo: comparative advantage
- JS Mill: openness to trade boosts domestic productivity by (among other things) allowing the import of better equipment and sharing of knowledge, and additional competitive pressures
- Trade intensity gives at least as much weight to **imports** as exports (a good thing, because most of the gains from trade come on the imports side)

4. Problem 1 – the origins of the 4%

- The OBR did do a deep dive into the issues, but the 4% figure itself is just a simple average of the results of outside studies
- Some included other effects, notably the potential impacts on investment and migration
- Some are based on a (much) worse trade deal - isn't the UK-EU TCA better than a standard FTA?
- Some assumed that all gains from EU membership (accumulated over decades and now built into the economy) would automatically be lost on leaving

5. 9 of the 13 studies suggested a hit to productivity of less than 4%

Table A: Long-run effect on productivity of trading with EU on FTA terms

Organisation	Model	Productivity assumption	Per cent Effect
Felbermayr et al (2018)	New quantitative trade model	Constant returns to scale	-1.8
IMF (2018)	Computable general equilibrium	Constant returns to scale	-2
Mayer et al (2018)	New quantitative trade model	Constant returns to scale	-2.4
UK in a Changing Europe (2019)	New quantitative trade model	Constant returns to scale	-2.5
OECD (2016)	NIGEM	Dynamic productivity	-2.7
IMF (2018)	Computable general equilibrium	Melitz-style increasing returns to scale	-3.3
Netherlands CPB (2016)	Computable general equilibrium	Krugman-style increasing returns to scale	-3.4
Bank of England (2019)	Gravity modelling	Dynamic productivity	-3.5
NIESR (2018)	Gravity modelling	Dynamic productivity	-3.8
Whitehall Study (2018)	Computable general equilibrium	Melitz-style increasing returns to scale	-4.9
UK in a Changing Europe (2019)	Gravity modelling	Dynamic productivity	-6.4
Netherlands CPB (2016)	Computable general equilibrium	Dynamic productivity	-5.9
World Bank (2017)	Gravity modelling	Dynamic productivity	-10
Average			-4.0

9/13

6. Plenty of studies suggest a smaller impact

Table 2.3: Effects on GDP of additional barriers on trade with the EU

Organisation	Model	Assumptions	Per cent		
			WTO	FTA	EEA
Economists for Free Trade	CGE	Assume zero NTBs ¹	0.0 ²	0.0	
Jafari & Britz	CGE	IRS (Melitz) & CRS ³	-1.1		
PWC	CGE	IRS (Krugman)	-2.1	-0.5	
Felbermayr <i>et al</i> (2017)	CGE	CRS	-2.3		-0.6
Dhingra <i>et al</i>	NQTM	CRS	-2.7		-1.3
Ciuriak <i>et al</i>	CGE	CRS	-2.8		-1.0
Banque de France	NQTM	CRS	-2.9	-2.4	
Felbermayr <i>et al</i> (2018)	NQTM	CRS	-3.2	-1.8	
IMF	CGE	IRS (Krugman)	-4.0	-2.5	
Netherlands CPB	CGE	IRS (Krugman)	-4.1	-3.4	
Centre for Economic Studies	CGE	CRS	-4.5		-1.2
Whitehall Study	CGE	Not specified	-6.5	-4.5	-1.5
OECD	NIGEM	Dynamic productivity	-7.7	-2.7	
Netherlands CPB	CGE	Dynamic productivity	-8.7	-5.9	
Dhingra <i>et al</i>	Gravity	Dynamic productivity	-9.4		-6.3
Rabobank	NIGEM	TFP model ⁴	-18.0	-12.5	-10.0
Average (excluding largest and smallest estimates)			-4.4	-3.0	-2.3

Notes: CGE = computable general equilibrium model NQTM = New quantitative trade model

IRS = Increasing returns to scale

CRS = Constant returns to scale

¹Their NTB value is based on an assumption rather than modelling work (see paragraph 2.54) and is excluded from the average.

²This study assumes that the burden of tariffs falls on the EU rather than the UK.

³IRS (Melitz) for manufacturing sectors and CRS for other sectors.

⁴This also assumes effects from lower FDI, R&D, technology transfer and management quality (and is excluded from the average).

7. Problem 2 – the evidence

- Trade has not performed as the studies had expected
- *“UK trade has so far proven more resilient than feared, especially in services. But we caution that the full effects of Brexit have not yet materialised.”*



- This has prompted some to wonder whether *“the OBR’s 15% [is] right for the wrong reasons and were the real reasons perhaps unrelated, at least directly, to Brexit?”*



8. Some stylised facts

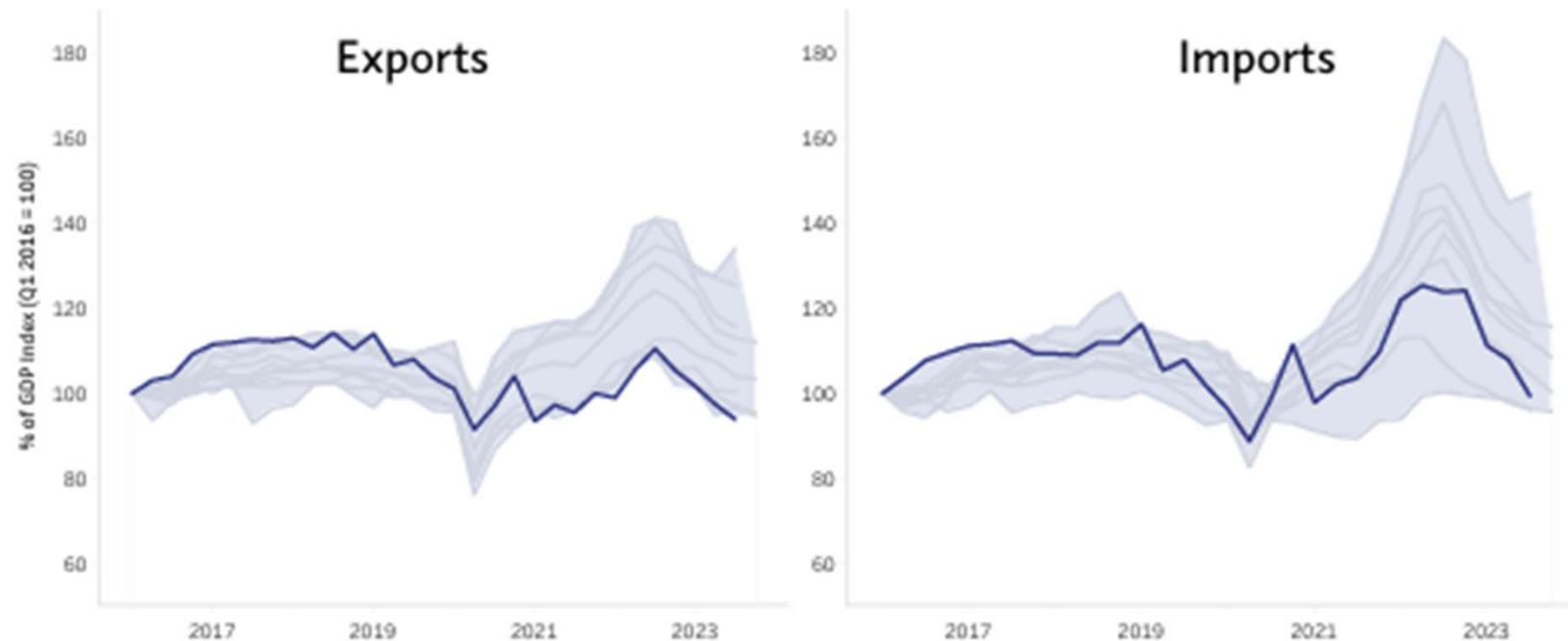
- UK goods trade with EU countries has broadly moved in line with UK trade with non-EU countries (though perhaps it should have done better?)
- UK services trade has outperformed
- The UK 'trade openness' has lagged behind the rest of the G7, but only by a few percentage points, and it is broadly where it was pre-Brexit
- IMHO, any shortfall here is unlikely to have much impact on productivity in an advanced economy (like the UK) which is still relatively open

9. Trade in Goods

Growth in UK goods trade has been weak

UK IN A
CHANGING
EUROPE

OECD countries goods imports and exports as a percent of GDP indexed to Q1 2016 = 100. United Kingdom in dark blue.



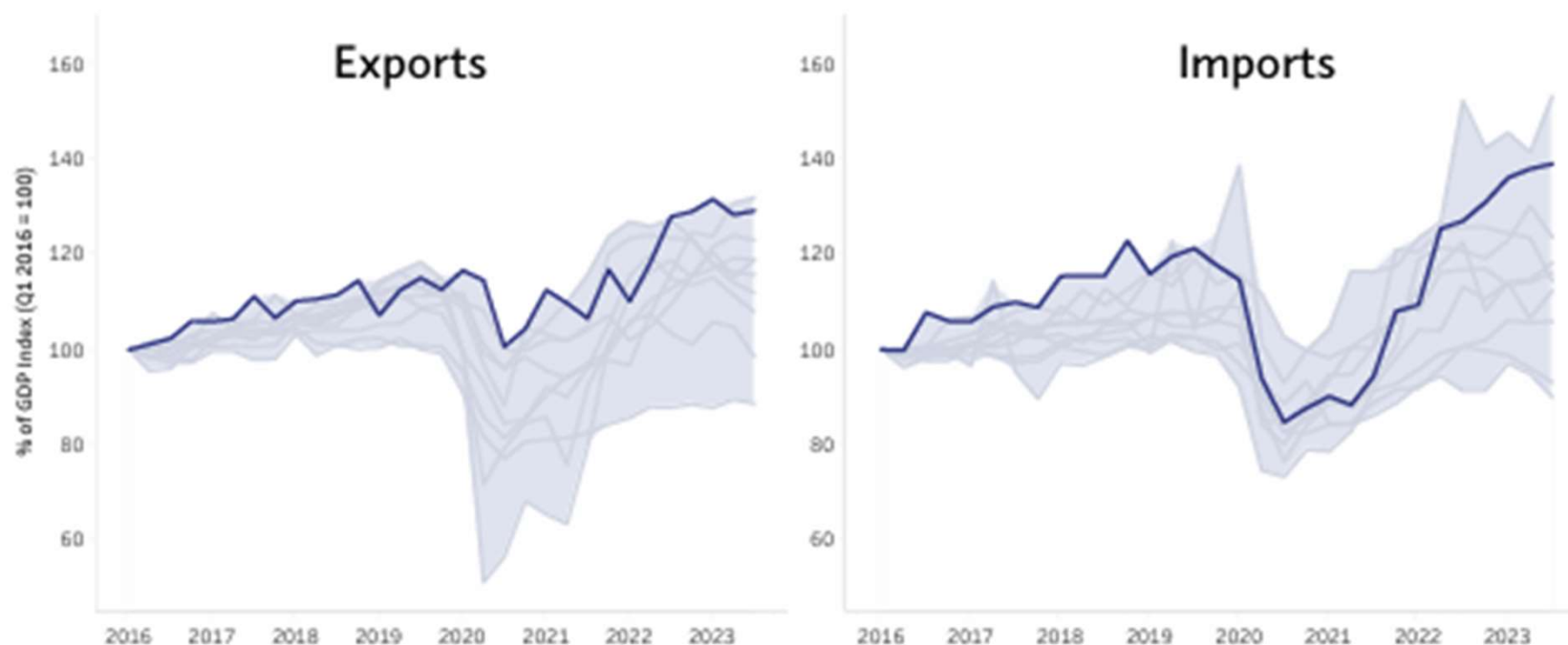
Source: OECD Data Explorer - International merchandise trade statistics - Quarterly in national currency, calendar and seasonally adjusted. OECD.Stat - Quarterly national accounts. GDP - expenditure approach - CQRSA: national currency, current prices, seasonally adjusted. Canada, France, Germany, Italy, Japan, Netherlands, Spain, UK, US, EU-27.

10. Trade in Services

UK services trade has grown relative to other OECD countries

OECD countries' services imports and exports as % of GDP indexed to Q1 2016 = 100. United Kingdom in dark blue.

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EUROPE

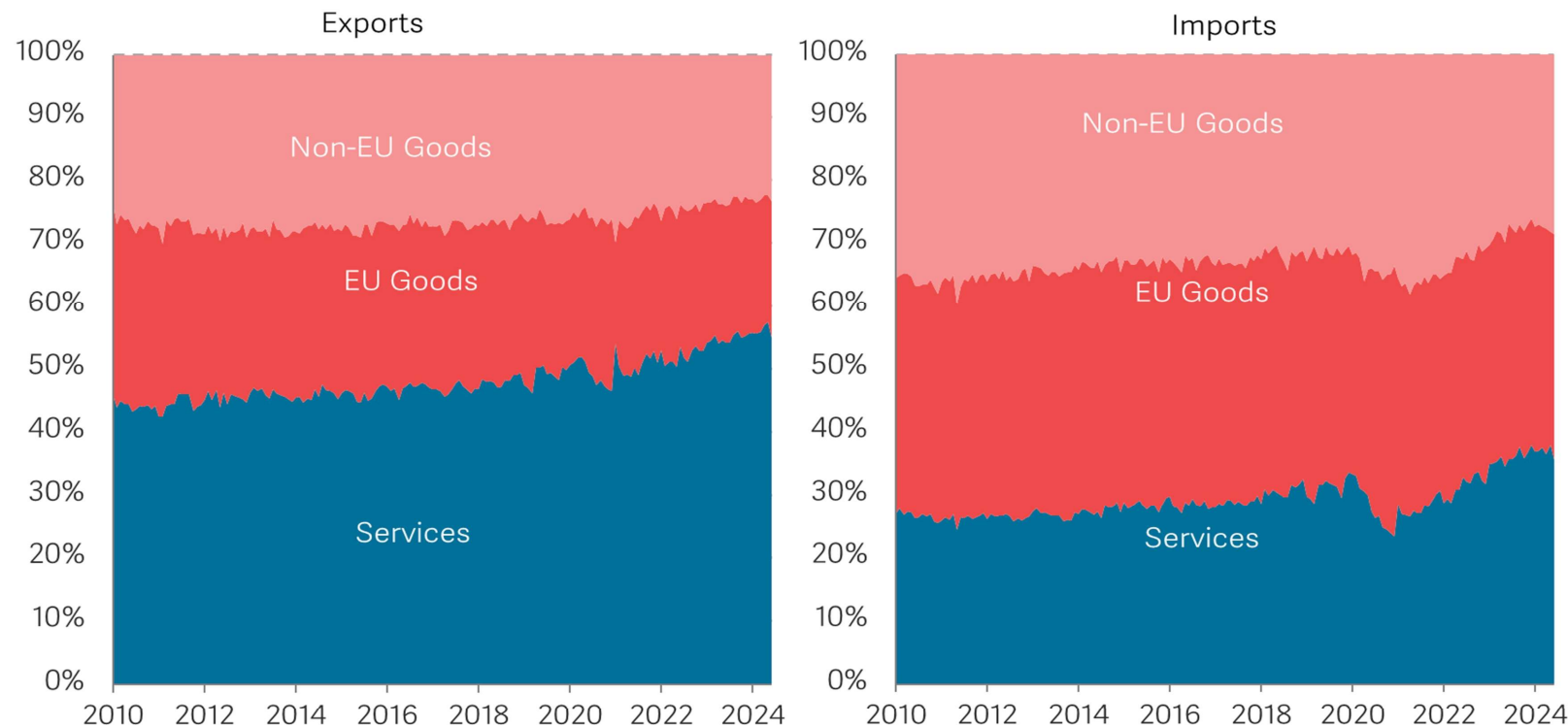


Source: OECD.Stats - balance of payments - Quarterly in national currency, seasonally adjusted. OECD.Stat - Quarterly national accounts. GDP - expenditure approach - CQRTSA: national currency, current prices, seasonally adjusted. OECD countries included: Canada, France, Germany, Italy, Japan, Netherlands, Spain, UK, US, EU-27.

11. UK is mainly a services exporter, but a goods importer (both matter)

EU and Non-EU goods and total services trade as a share of total UK trade volumes: UK

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Notes: Goods less precious metals, chained volume measure.
Source: ONS, UK Trade Time Series June 2024.

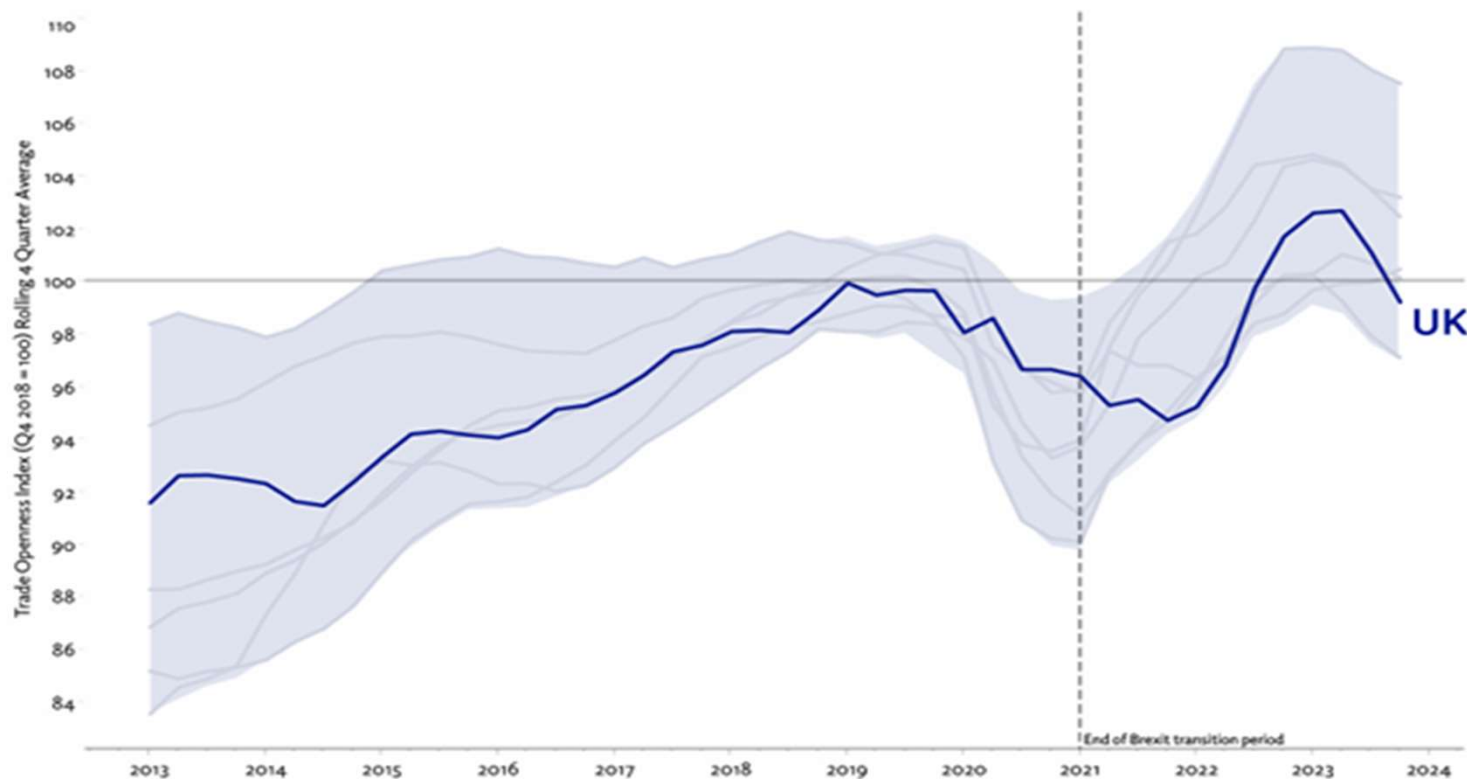
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12. Trade openness

UK trade openness has fallen below 2018 levels

Index of trade openness four quarter rolling average of the G7 between 2013 and Q4 2023 (Q4 2018=100).

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Source: OECD Quarterly National Accounts data. Trade openness calculated as imports and exports in chained volume measure divided by real GDP (in 2015 US dollars, chained linked volume (rebased), fixed PPPs, OECD reference year, annual levels, calendar and seasonally adjusted). Shaded area is G7 min and max range with dark blue line representing the UK.

13. Could new trade agreements have a significant long-term impact?

- Short answer – ‘yes’
- ‘Gravity models’ say otherwise, but ‘size still matters’, and distance will be less important over time (and for *some* services)
- Important to look past the impact on observable trade flows alone (‘dynamic effects’)
- But needs political will on both sides (lacking in North America, more promising in Asia-Pacific)

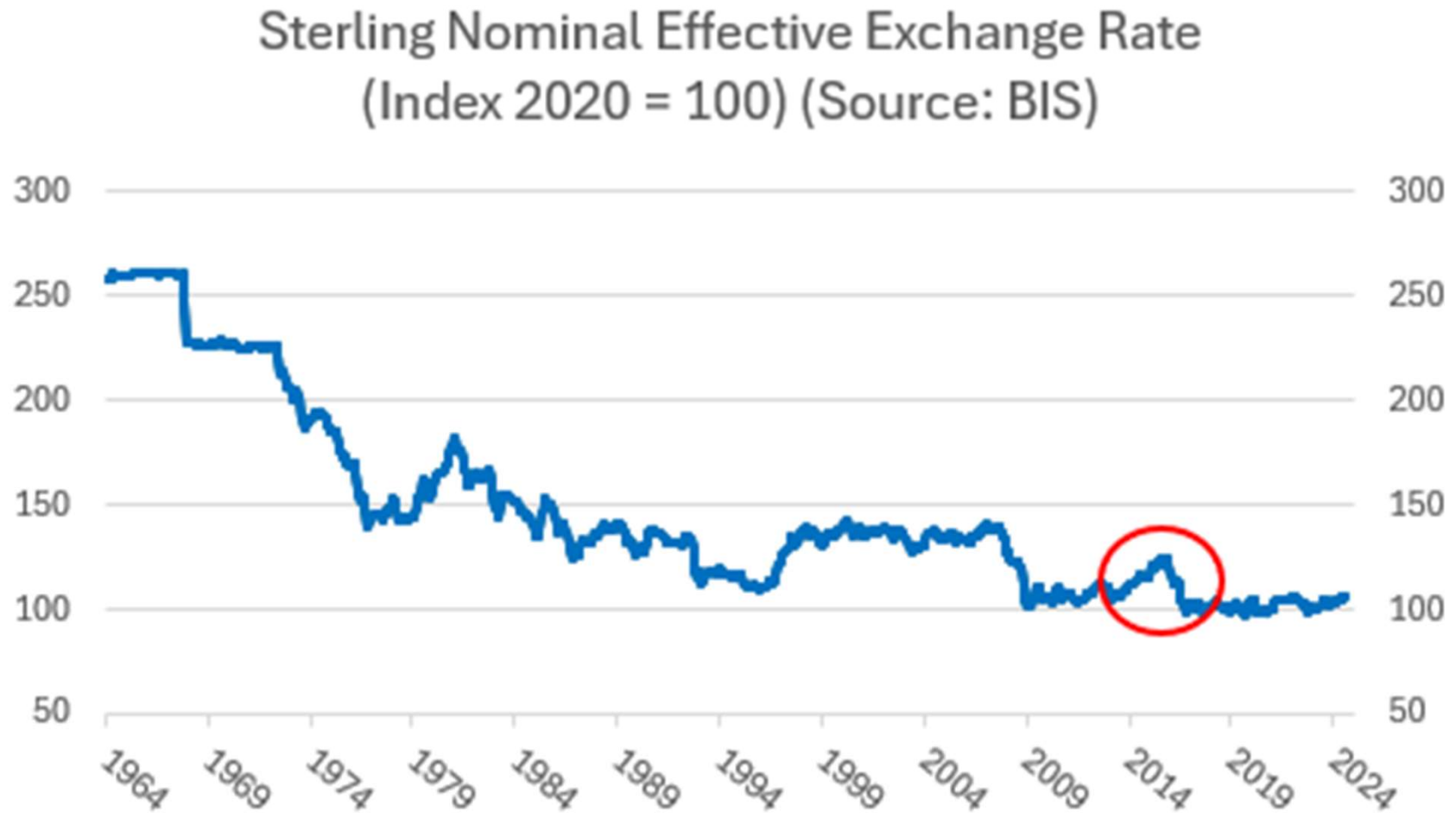
14. Key OBR assumptions - investment

1. “Greater uncertainty from the result of the referendum would see some investment projects postponed or cancelled”
2. “In our March 2020 EFO, we estimated that this had lowered productivity by 1½ per cent as a result of a lower capital stock”
3. “But we expected that shortfall to fade as uncertainty over the future trading relationship receded and investment recovered”

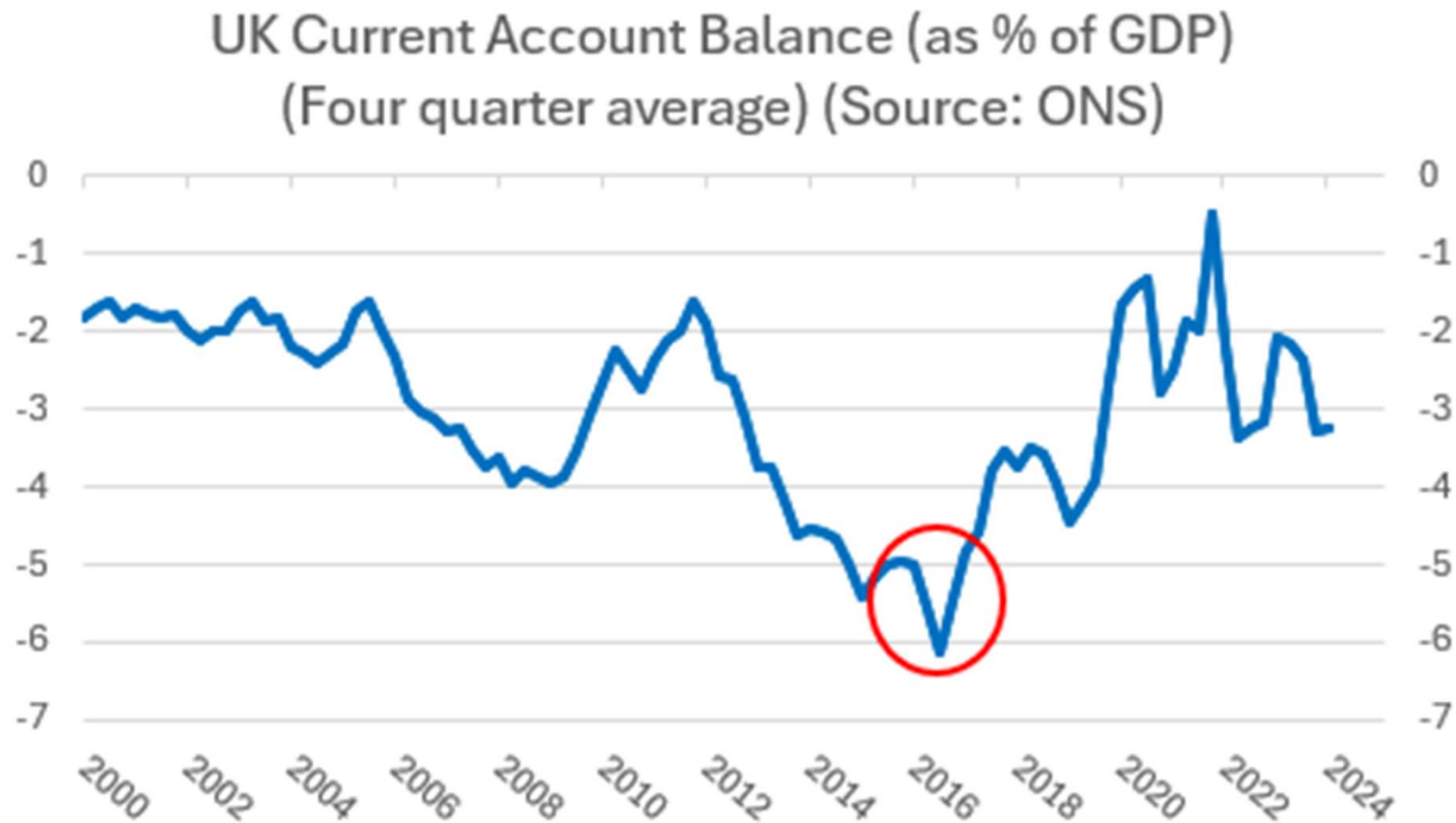
15. Brexit and business investment

- Definitely some adverse effects, but...
 1. Brexit uncertainty may simply have delayed investment pending greater clarity (*'the value of waiting for news'* Ben Broadbent)
 2. long-running surveys (e.g. E&Y, KPMG) continue to show that the UK is a favoured destination for inward investment, especially in areas like fintech
 3. overall FDI is down globally, but the UK continues to lead in 'greenfield' projects
 4. financial market sentiment has started to recover

16. Sterling's 'Brexit slump' did little more than reverse the appreciation from 2012 to 2015



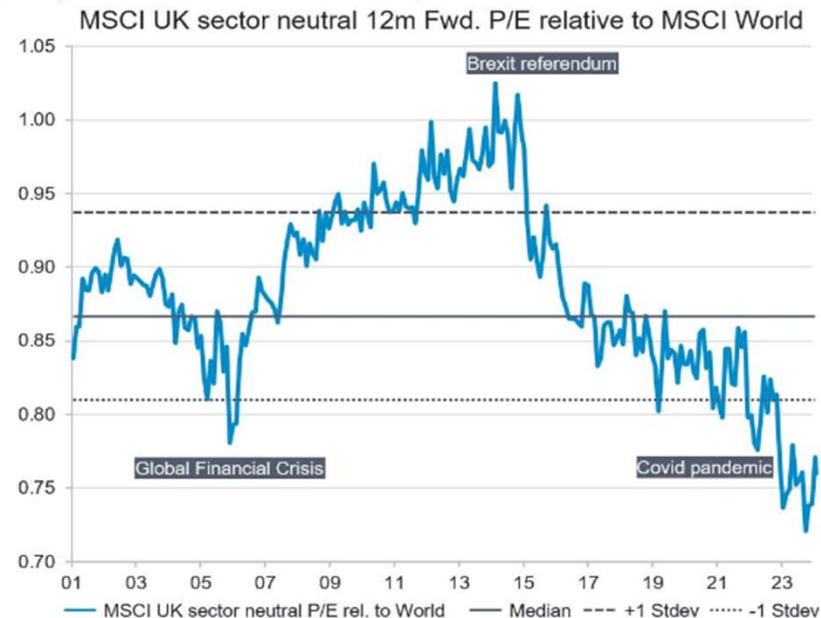
17. External imbalances suggest that sterling was overvalued ahead of the Brexit vote



18. UK equities still trade at a substantial discount, but are coming back into favour

UK equities very attractively valued in a global context

Trading at extremely cheap levels in global context (irrespective of sector differences)

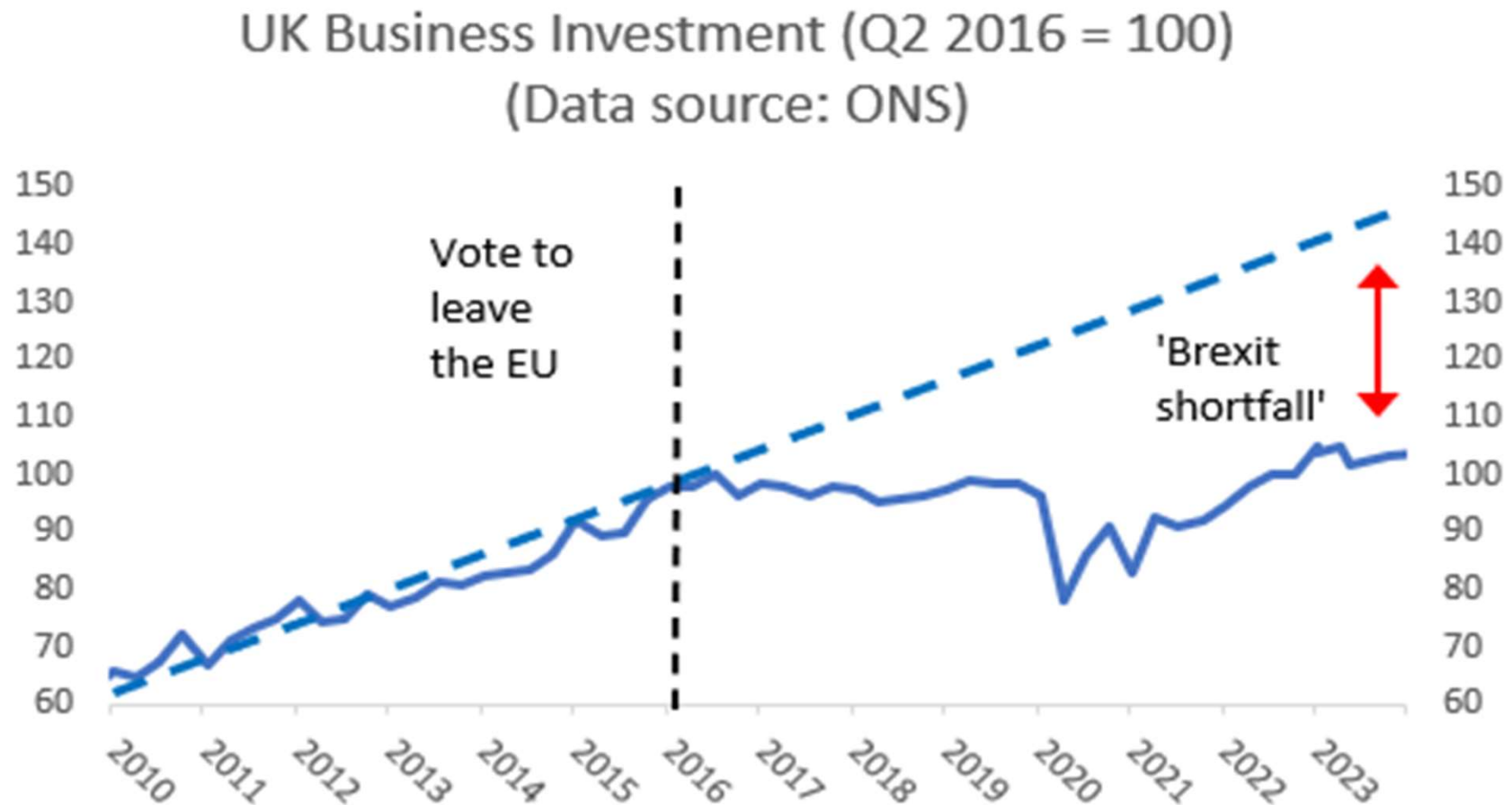


UK also compares favourably versus other regional markets

	2023 P/E	2024E P/E	2025E P/E
US	24.6	22.1	19.3
UK	12.4	12.1	11.2
Europe ex UK	16.2	15.0	13.5
Japan	17.4	16.0	14.8
Asia Pacific ex Japan	16.9	14.1	12.4

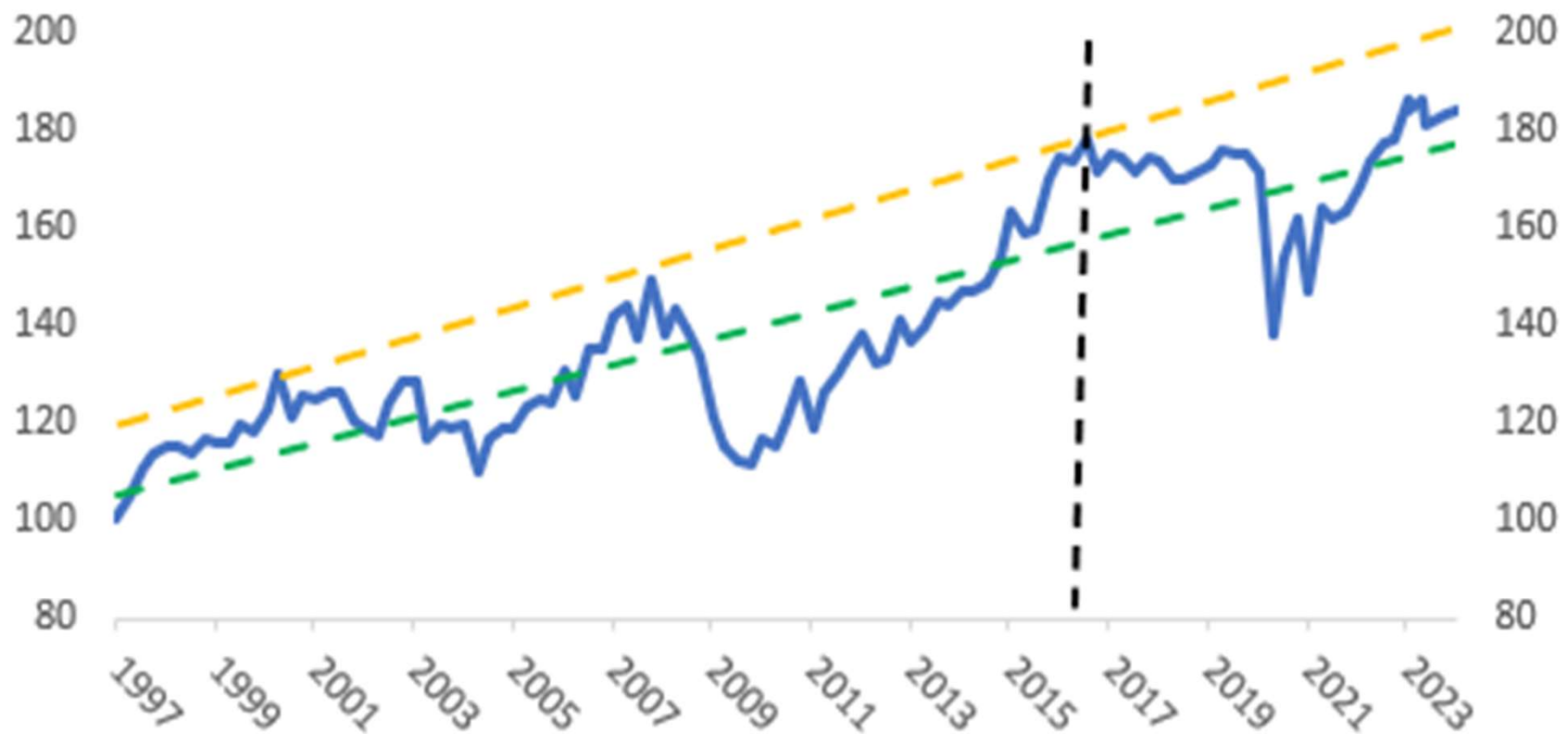
Source: LHS chart: JP Morgan Equity Strategy, Datastream, 3 June 2024. RHS table: Citi Research, Worldscope, MSCI, Factset, 31 May 2024. Price Earnings ratio based on consensus estimates. For illustrative purposes only.

19. #chartcrime! extrapolating the post-GFC bounce gives a misleading picture



20. Two alternatives

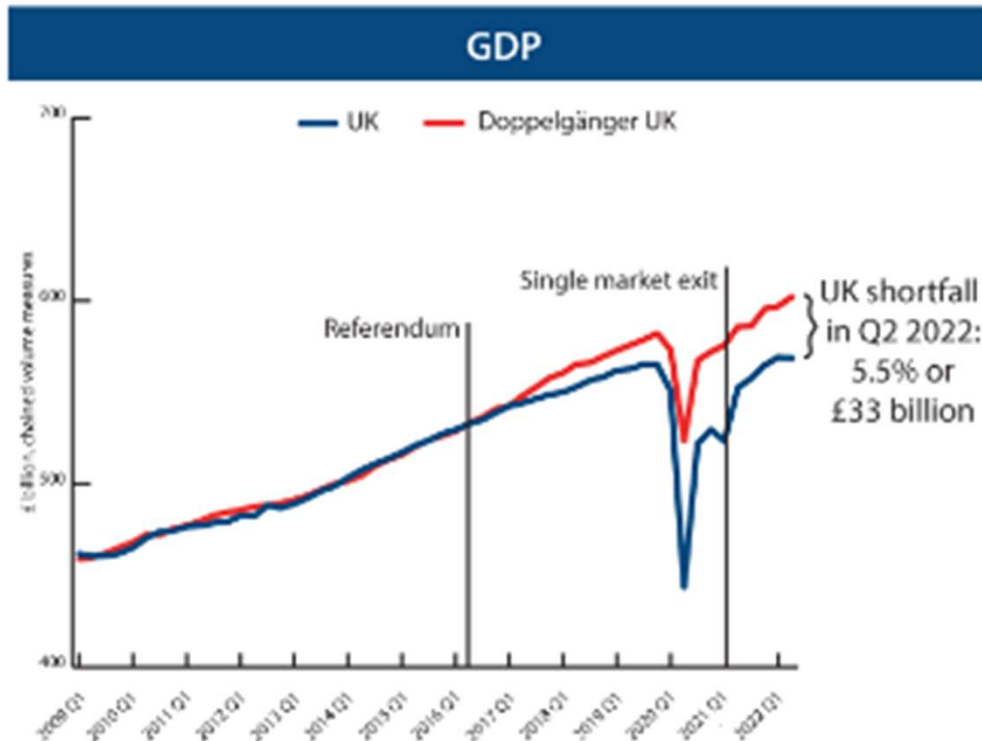
UK Business Investment (Q1 1997 = 100)
(Data source: ONS)



21. Key OBR assumptions - migration

1. March 2020 - new regime to reduce annual net inward migration to 129,000 in the medium term
 2. November 2023: revised up to 245,000
 3. March 2024: revised up again, to 315,000
 4. Upshot is that differences in migration trends after Brexit are no longer expected to have a significant impact on overall GDP
- I would expect a smarter points-based system to have a small positive effect on productivity (GDP per capita)

22. The case for 'Doppelgangers'



John Springford



- A neat solution to the counterfactual problem
- A computer algorithm selects a group of economies whose performance most closely matched that of the UK before 2016
- Any subsequent divergence is assumed to be due to Brexit

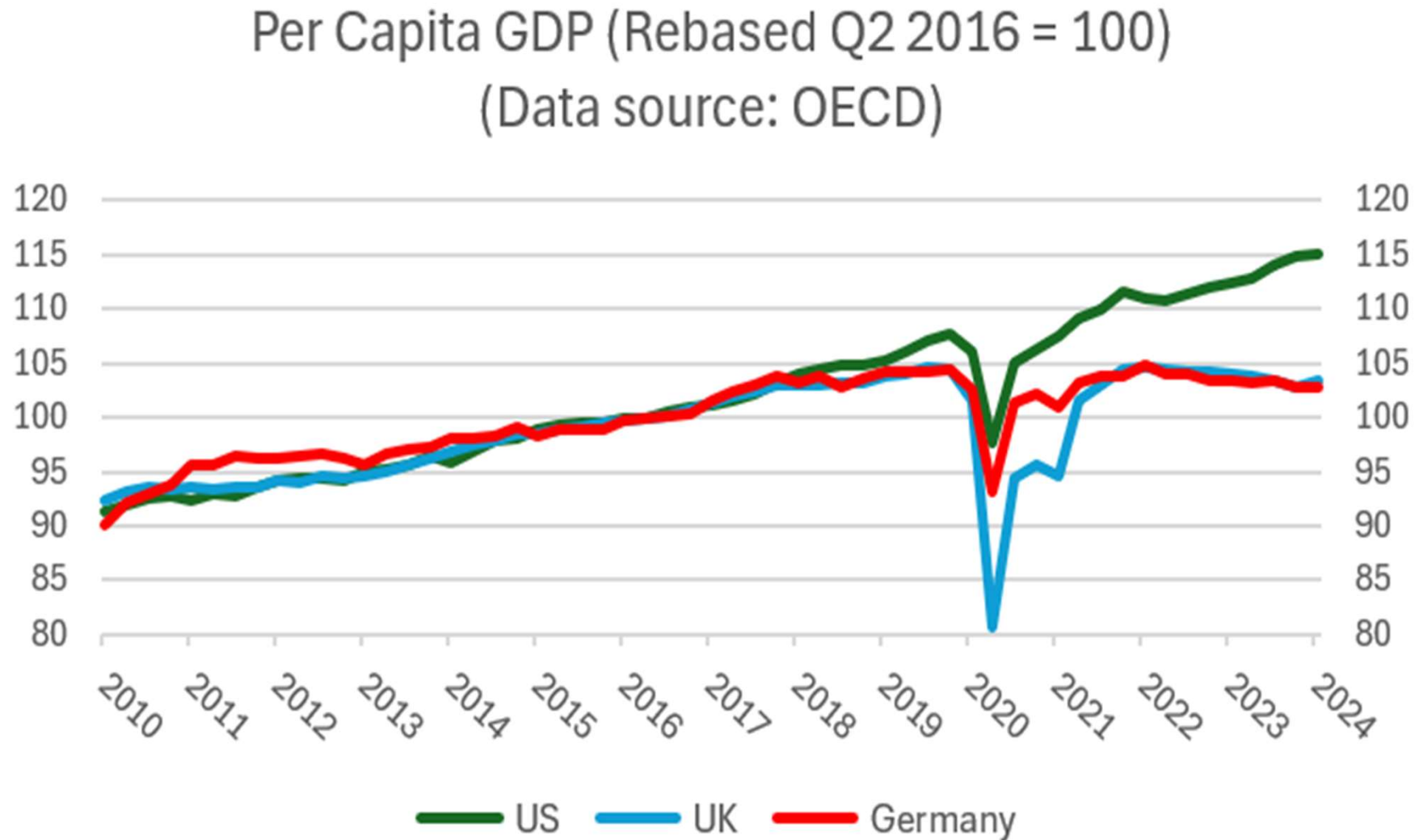
23. The risks of ignoring the counterfactual

- Important to think about what might have happened anyway, if we had remained in the EU
- So, for example, my fellow Brexiteers must do better than just saying...
 - ❑ *“the UK economy has grown by x% more than Germany since Brexit”*
 - ❑ *“the value of exports to the EU has risen by y%”*
- This simply begs the question *‘how much better would these figures have been without Brexit?’*

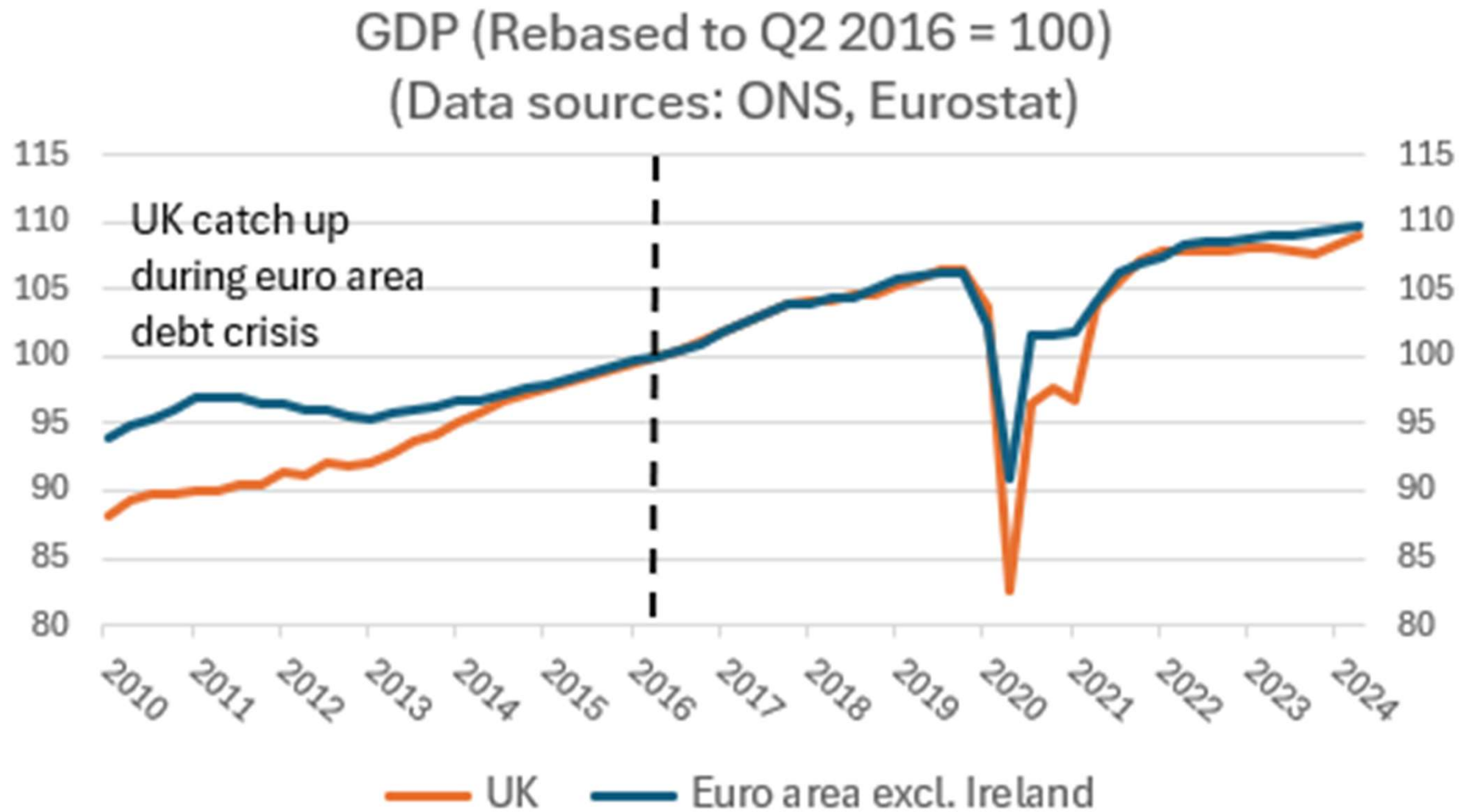
24. Why you can't trust a Doppelganger

1. Can't separate out the differential impacts of other shocks (Covid, the energy crisis) or policy changes (e.g. US fiscal expansion)
2. Less of an issue looking only at 2016-18 (perhaps a max 1-2% hit, mainly via investment?), but this was only a short period and included the phase of peak Brexit uncertainty
3. IMHO, it would make more sense to narrow the control group to economies which would have been equally vulnerable to Covid and the energy crisis – or simply compare the UK to peers in the euro area

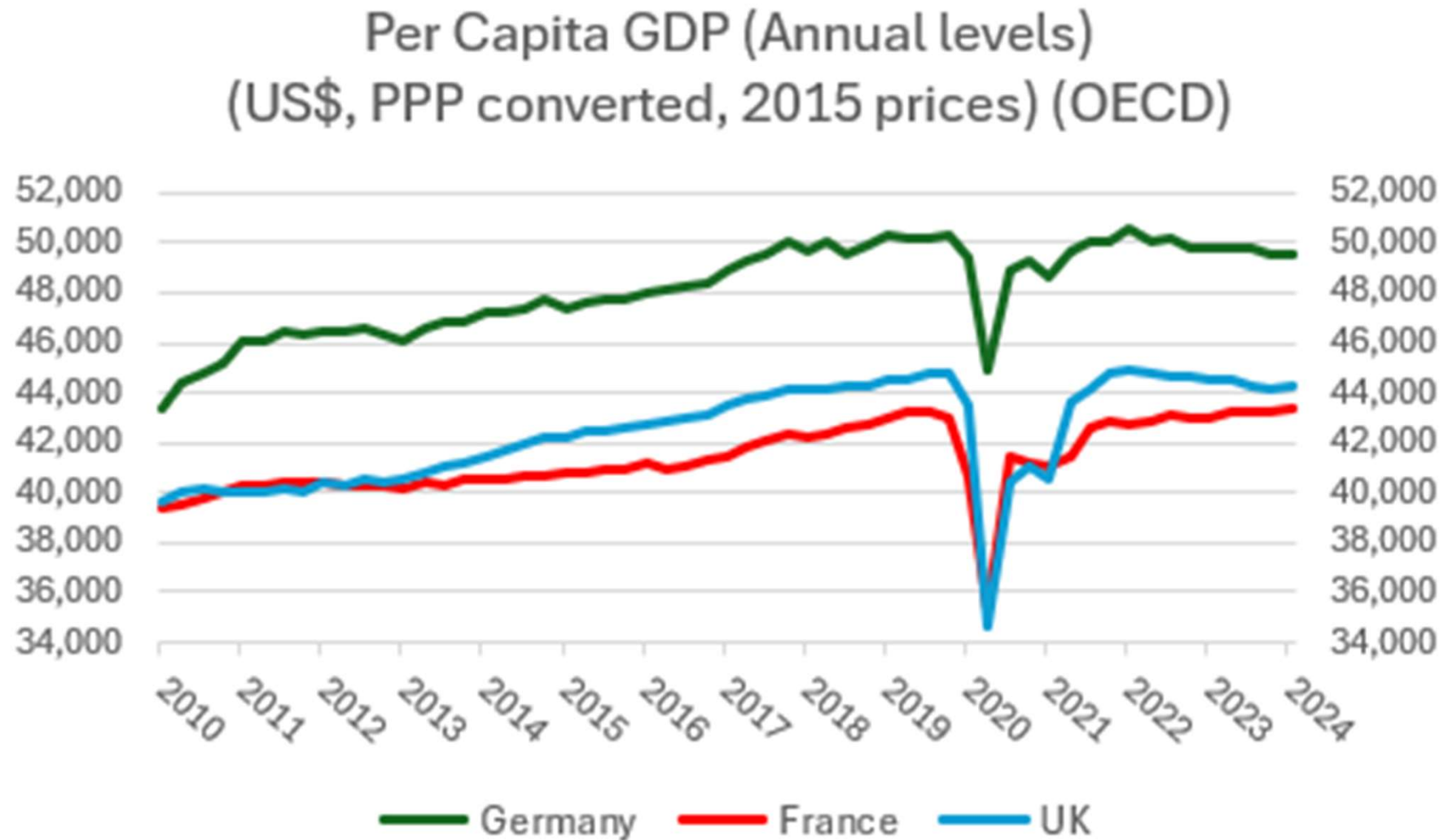
25. The outlier is clearly the US, not the UK



26. No sign of a big Brexit hit in the GDP data

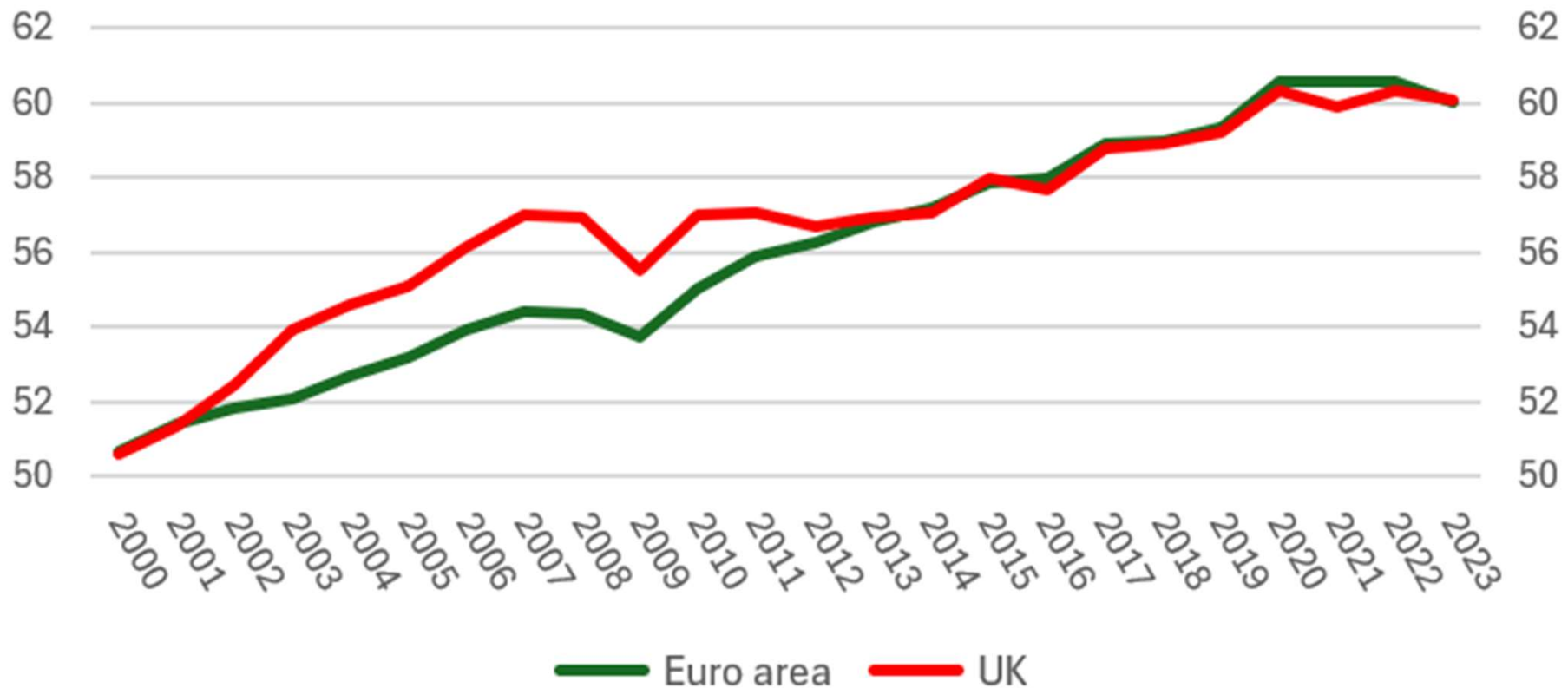


27. ... or per capita GDP



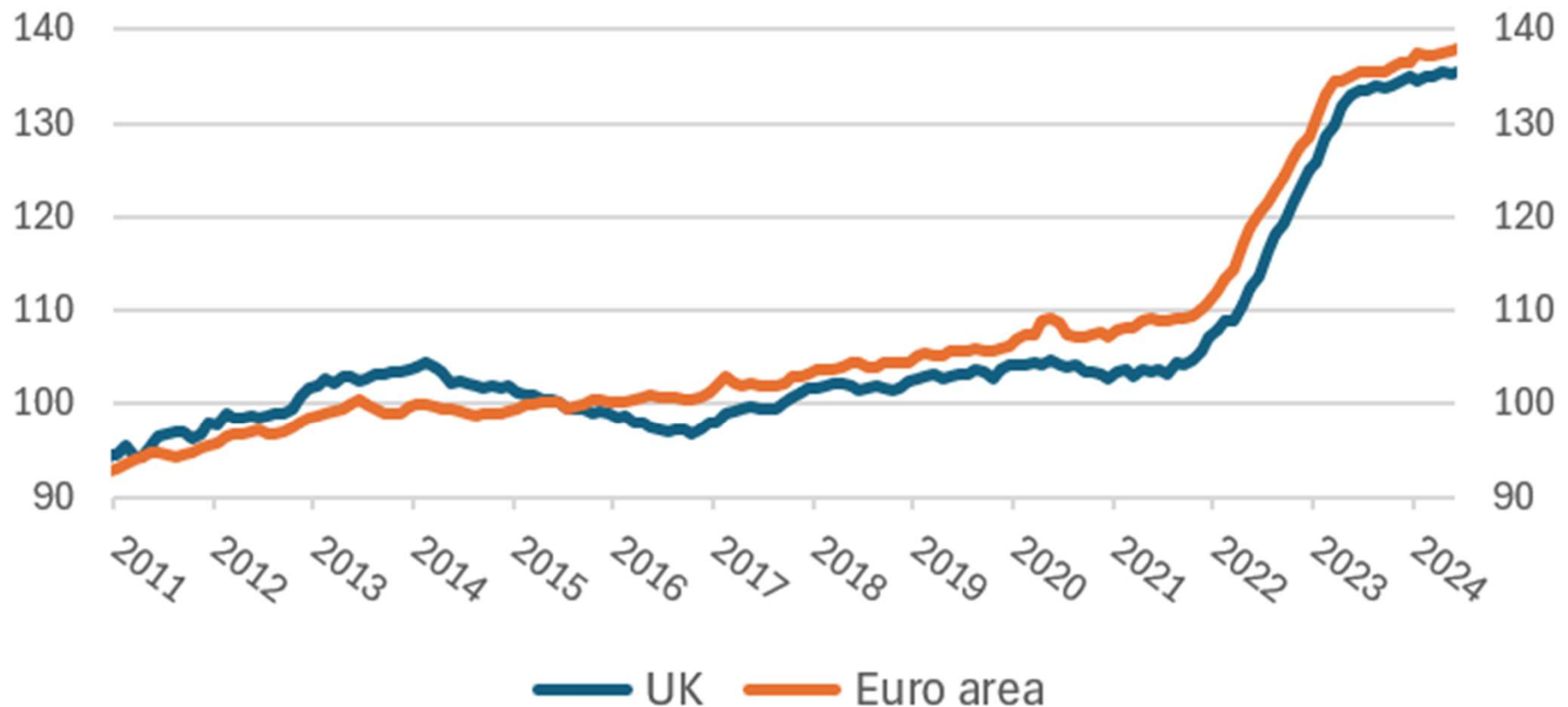
28. ... or labour productivity

GDP per hour worked (US\$, PPP, 2015 prices)
(Data source: OECD)



29. ... or food prices

CPI Food & Non-Alcoholic Beverages (2015 = 100)
(Data sources: ONS, Eurostat)



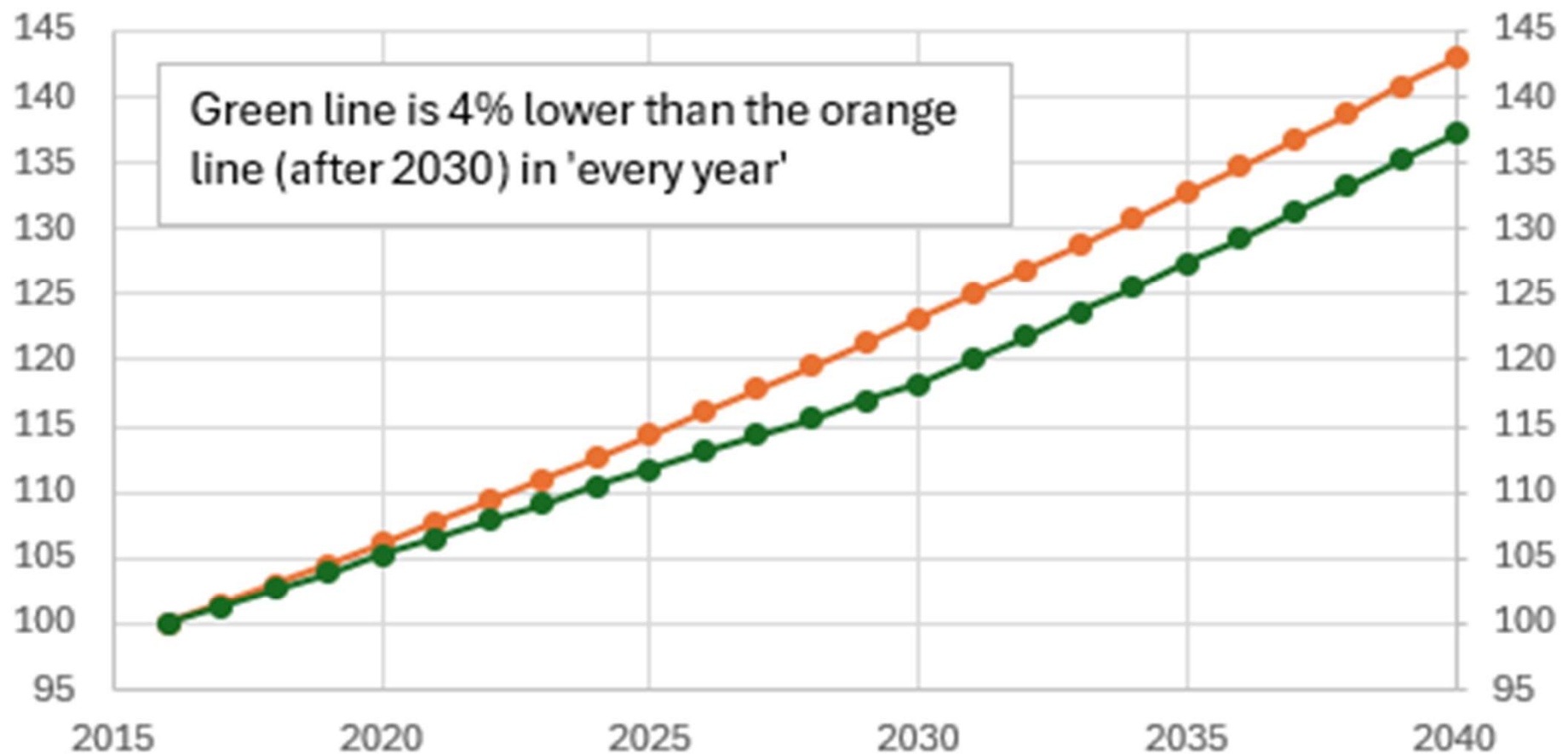
30. Some common misunderstandings

- ‘Independent analysis by the OBR has shown that Brexit will reduce UK GDP by 4%’
- The 4% figure (which actually refers to productivity) is an assumption based on an average of outside studies, and should not be taken as gospel
- ‘The UK economy is now 4% smaller than it would otherwise have been as a result of Brexit’
- The 4% is an estimate of the long-run impact (though the OBR has suggested about half of this may already have happened)

31. This line is correct but often misunderstood

- ‘The OBR says UK GDP will be around 4% lower every year than it would have been had we remained inside the EU’ (The Observer, 23 June 2024)
- Some people have wrongly interpreted this to mean that growth will be 4% lower every year (so it might have been 5% rather than 1%)
- Instead, the 4% refers to the level of GDP (strictly, GDP per capita) in each year, relative to the scenario where Brexit had not happened, with the full effect felt after 15 years

32. Illustration of what '4% lower every year' might look like (note the end point is still much higher in either case)



33. Conditional forecasting

- *‘How can we trust the OBR’s assessment of the impact of Brexit in 15 years’ time when they can’t even get the next six months right?’*
- Let’s use a football analogy...
- It’s hard to predict exactly where a particular team will finish in the league at the end of the season, let alone the result of every single game
- But you could say something like *‘on average, a top manager will help a team to finish two places higher than it would otherwise have done’*

34. Some painful examples of 'confirmation bias'

Save British Farming 🇬🇧 @SaveBritishFood · 6h ...

No surprises really to see that bluetongue has been identified in 🇬🇧 for the first time in 16 years, given the fact our borders are wide open since [#Brexit](#).



Denis MacShane
@DenisMacShane

...

More Brexit great news. Tourism down. Visits from EU nations 23% down in 2022 compared to 2019.



Edward Luce ✓
@EdwardGLuce

...

As a public servant Mark Carney declines to offer a 'value judgement' on Brexit. He's happy to give a neutral valuation though: "Put it this way, in 2016 the British economy was 90 per cent the size of Germany's. Now it is less than 70 per cent." Boom.

35. Reflections on Brexit cost-benefit analysis

- The **costs** of Brexit were always likely to come sooner and be more visible – this is what most studies have sought to quantify
- But most of these costs are also likely to fade over time as uncertainty clears and markets adjust
- The **benefits** were always likely to take longer to come through, be less visible, and even harder to quantify – but are nonetheless important
- These include potential gains from smarter regulation of everything from financial services and agriculture to life sciences and (especially) AI

36. Some conclusions

1. The OBR's 4% assumption is just that – an assumption – and is only weakly supported by what has actually happened to trade since Brexit
2. The negative impacts on sentiment and investment are already fading
3. Bottom line: my view is that Brexit will come to be seen as just a 'bump in the road', rather than a 'car crash' or a 'slow puncture', though the lack of political will means it may not be the sharp turn for the better that some hope for either