

# Understanding the economic impact of Brexit

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Presentation to External Affairs  
and Additional Legislation  
Committee, Welsh Assembly

10 DECEMBER 2018



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# Overview (1)

- Brexit will mark a step-change in UK's economic relationship with EU and non-EU countries
- Economic considerations are one of the factors likely to shape opinions
- Two economic questions
  - Long-run
  - Short-run



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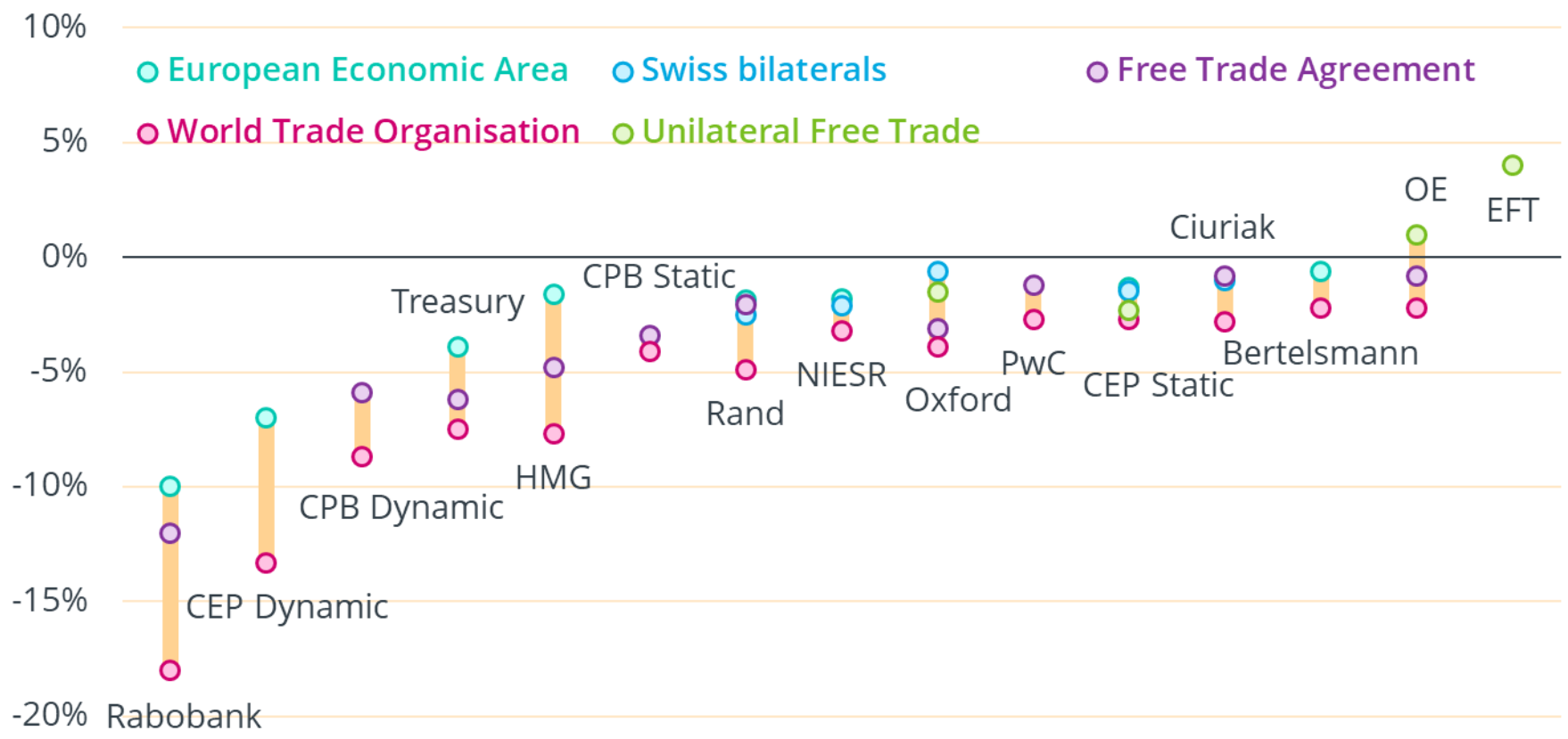
# Overview (2)

- Published studies of the long-run impact provide a large range of predictions for what the impact of any deal is likely to be
- Conclusion reached depends in part on UK's future trading relationship with the EU...
- ...but also on assumptions made about:
  - Resultant impact on: trade barriers, foreign investment, productivity
  - Changes to regulation and migration policy



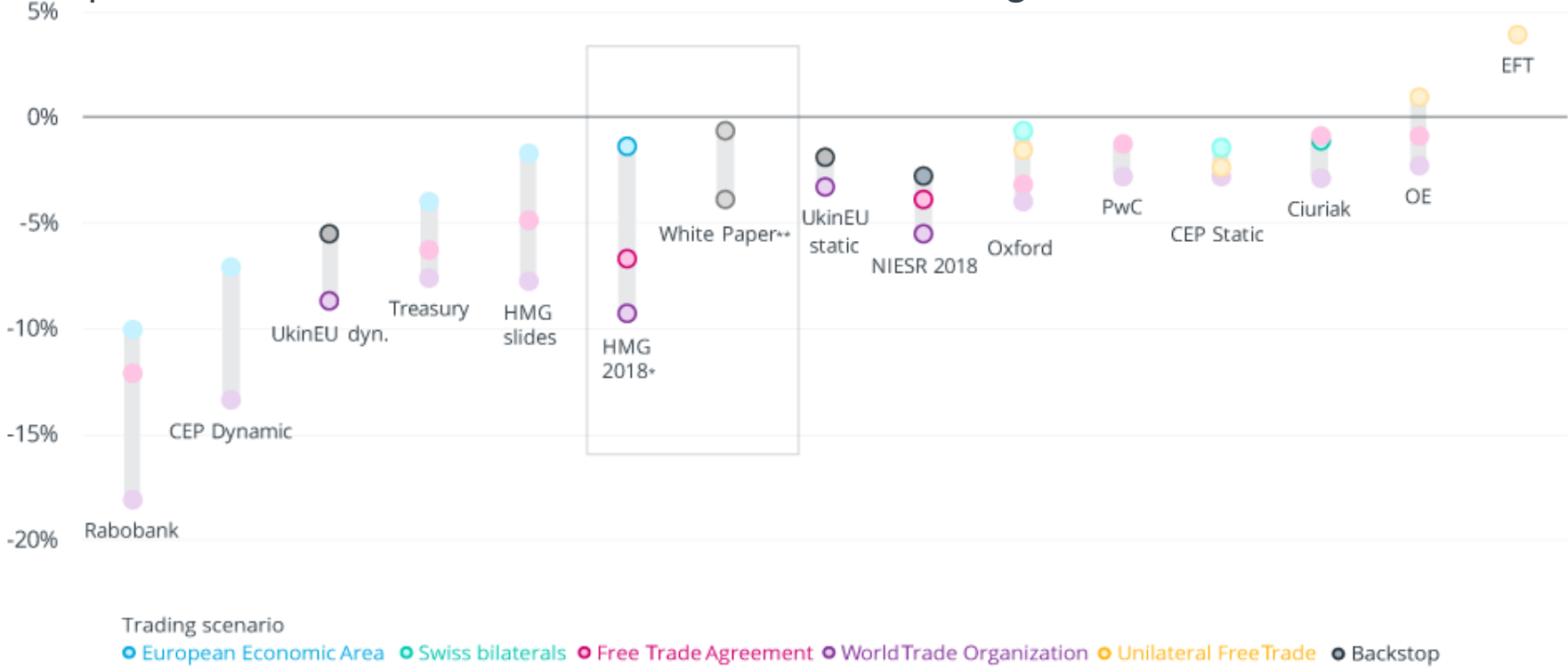
# How will Brexit affect the UK economy in the long-run? (1)

Impact of Brexit on UK GDP in 2030 relative to remaining in the EU



# How will Brexit affect the UK economy in the long-run? (2)

## Impact of Brexit on UK GDP in 2030 relative to remaining in the EU



\*The FTA and WTO scenarios include assumptions of zero net migration from the EEA for the FTA and WTO scenarios which account for their larger impact in comparison to their previous effort.

\*\*HMG model a further range based on the the Government's Future Relationship White Paper published in July which produce a range of outcomes: the most negative includes a 50% "sensitivity analysis" which assumes that the final agreement includes higher trade barriers and also assumes zero net EEA migration.

# Government presented several scenarios

Impact of Brexit on UK GDP in 15 years' time relative to remaining in the EU  
(% change)

	No deal	FTA	EEA	White Paper	White Paper + 50% NTB
No change to migration rules	-7.7	-4.9	-1.4	-0.6	-2.1



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	No deal	FTA	EEA	White Paper	White Paper + 50% NTB
No change to migration rules	-7.7	-4.9	-1.4	-0.6	-2.1
Zero net EEA migration	-9.3	-6.7	n/a	-2.5	-3.9



# Counterfactuals matter

- Long-term economic modelling is about comparative statics
  - Asking: How much larger/smaller will the UK economy be at some point in the future if we have trade deal X with the EU than if [something else happens]?
  - Not: How fast will the economy grow if we have trade deal X?
- What is “something else”?
  - (Virtually) all projections have compared alternative Brexit outcomes to remaining in the EU
  - Finance Bill amendment forced Government to do the same





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# Approaches to modelling the long-term Brexit impact

- Two broad approaches
  - Gravity models + macro-econometric modelling: used by HMT pre-referendum
  - Computable General Equilibrium models: used for latest Government analysis
- But: assumptions, rather than models, seem to drive most of the difference in results



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# Close trade links boost growth

- Complete agreement among UK economic commentators on this
  - Theory: comparative advantage, economies of scale, greater competitive pressure, knowledge transfer, higher returns to R&D
  - Empirical evidence: gravity modelling of changes in trade volumes when new trade agreements have been signed
- But economists have differing views on how Brexit will affect links between UK, EU and non-EU countries
  - Non-tariff barriers matter more than tariffs



# How will Brexit affect trade barriers between the UK and EU? (1)

- EU single market and customs union reduces barriers to trade between member states
- Empirical evidence on size of barriers between EU and USA
  - Non-tariff barriers estimated to be equivalent to c.10% tariff
- Weaknesses
  - Most evidence based on episodes of integration...
  - ...and based on removing barriers to goods trade



# How will Brexit affect trade barriers between the UK and EU? (2)

- Most Brexit impact studies assume...
  - Tariffs: in WTO scenarios, rise to EU MFN rates
  - Non-tariff barriers: higher under WTO/UFT scenarios than EEA/FTA/Theresa May's deal
- Economists for Free Trade: positive projection assumes...
  - No increase in trade barriers with the EU
  - Reduction in trade barriers with non-EU countries



## Table 2: How much would non-tariff barriers to trade change following Brexit?

Study	Predicted change in non-tariff barriers with the EU (% tariff-rate equivalent)			
	EEA	FTA	WTO	UFT
EFT	–	–	–	No change
Ciuriak / Open Europe			+3.26% <sup>a</sup>	
CEP	+2.8%	–	+8.3%	+8.3%
PwC	–	**	**	–
Rabobank	+3.3%	+5.9%	+8.7%	–
HMG	+4%	+7%	+10%	–
CPB	–	+6%	+12.9%	–

- Final government analysis assumes...
  - White Paper: +1% for goods, +6% for services
  - White Paper + 50% NTBs: +4% goods, +7% services
  - EEA: +5% goods, +2% services
  - FTA: +8% goods, +9% services
  - No deal: +10% goods, +11% services



# How will Brexit affect trade barriers between UK and non-EU countries?

- New free trade agreements with non-EU countries
  - Government analysis: boosts GDP by 0.2%
  - Other studies: up to 0.9% boost to GDP
- Existing EU FTAs
  - Government analysis: retain access to all
  - Other studies: a few assume lose access to some/all



**Table 1: Assumptions about free trade agreements with non-EU countries**

	Existing EU FTAs	New FTAs
<b>Bertelsmann</b>	EEA – retain access WTO – lose access	None
<b>CEP</b>	Retain access	None
<b>CPB</b>	Retain access	None
<b>Ciuriak</b>	Retain access	USA: +0.3% to GDP China, Japan, ASEAN and India: +0.6% to GDP
<b>EFT</b>	Retain access	None
<b>HMG</b>	Retain access	USA: +0.1%–0.3% to GDP China, Australia, New Zealand, Japan, ASEAN and India: +0.1– 0.4% to GDP
<b>NIESR</b>	Lose access	None
<b>OECD</b>	Lose access	None
<b>Open Europe</b>	Retain access	See Ciuriak <sup>37</sup>
<b>Oxford Economics</b>	Retain access	None
<b>PwC</b>	FTA – retain access WTO – renegotiate by 2026	USA deal (2021): Cuts cost of exports by 0.4% USA deal (2026): Cuts cost of exports by 0.4%
<b>Rabobank</b>	Lose access but renegotiate 40% of them	None
<b>RAND</b>	Retain access	USA deal: +2.4% (relative to a WTO baseline)
<b>Treasury</b>	Lose access but renegotiate over 15 years	None

# Foreign investment

- Previous literature suggests EU membership has boosted FDI in the UK
- Leaving EU could reduce FDI but closer links to non-EU countries could partially offset this
- What do different studies assume?
  - Government main analysis assumes no reduction
  - Most studies assume some reduction in FDI
    - Between c.8% (EEA) and c.26% (WTO)
    - But small direct impact on GDP (<0.5%)
  - EFT assume no reduction in FDI





# Migration

- Economic evidence suggests higher migration boost economic output
- Brexit allows UK government to...
  - Impose new restrictions on EU migration
  - Remove some restrictions on non-EU migration?
- What do different studies assume?
  - Government model two options: no change and zero net EU migration (latter reduces GDP p.c. by further 0.6%)
  - Most others make no assumptions about changes to migration
  - Some assume stricter rules for EU migrants (only partially offset by less restrictive rules for non-EU)



# Regulation

- Brexit could allow UK government to adapt regulations to better suit UK's needs
  - But this could raise barriers to trade
- Ex ante estimates of economic impact of EU regulations suggest significant costs
  - But ex post impact smaller in some cases...
  - ...and UK government committed to maintaining many regulations
- What do studies assume?
  - Government analysis: +0.1% GDP (WP, FTA, WTO)
  - Some others include deregulation: EFT (2%), Open Europe & PwC (+0.7%), Oxford Economics (0.13%)

# Productivity

- Strong theoretical reasons to think trade, investment and migration boost productivity growth
- Some empirical evidence on this but size of the effect hard to pin down
- What do studies assume?
  - Many studies assume no productivity effect ('static')
  - Exceptions, allowing for a 'dynamic' productivity effect: *CEP*, *CPB*, OECD, Rabobank, Treasury, Government
    - Estimate larger hit to GDP



# A rosey picture of Theresa May's deal

- Assumptions made in final Government analysis combine to flatter Theresa May's deal
  - Focus on Chequers/White Paper proposals
- Compared to Single Market membership
  - Benefits of Facilitated Customs Arrangement outweigh being outside the Single Market for services
- Compared to FTA/WTO
  - Looser ties with the EU offer little scope for signing deeper FTAs with non-EU countries
  - Dynamic impact on productivity magnifies the GDP hit



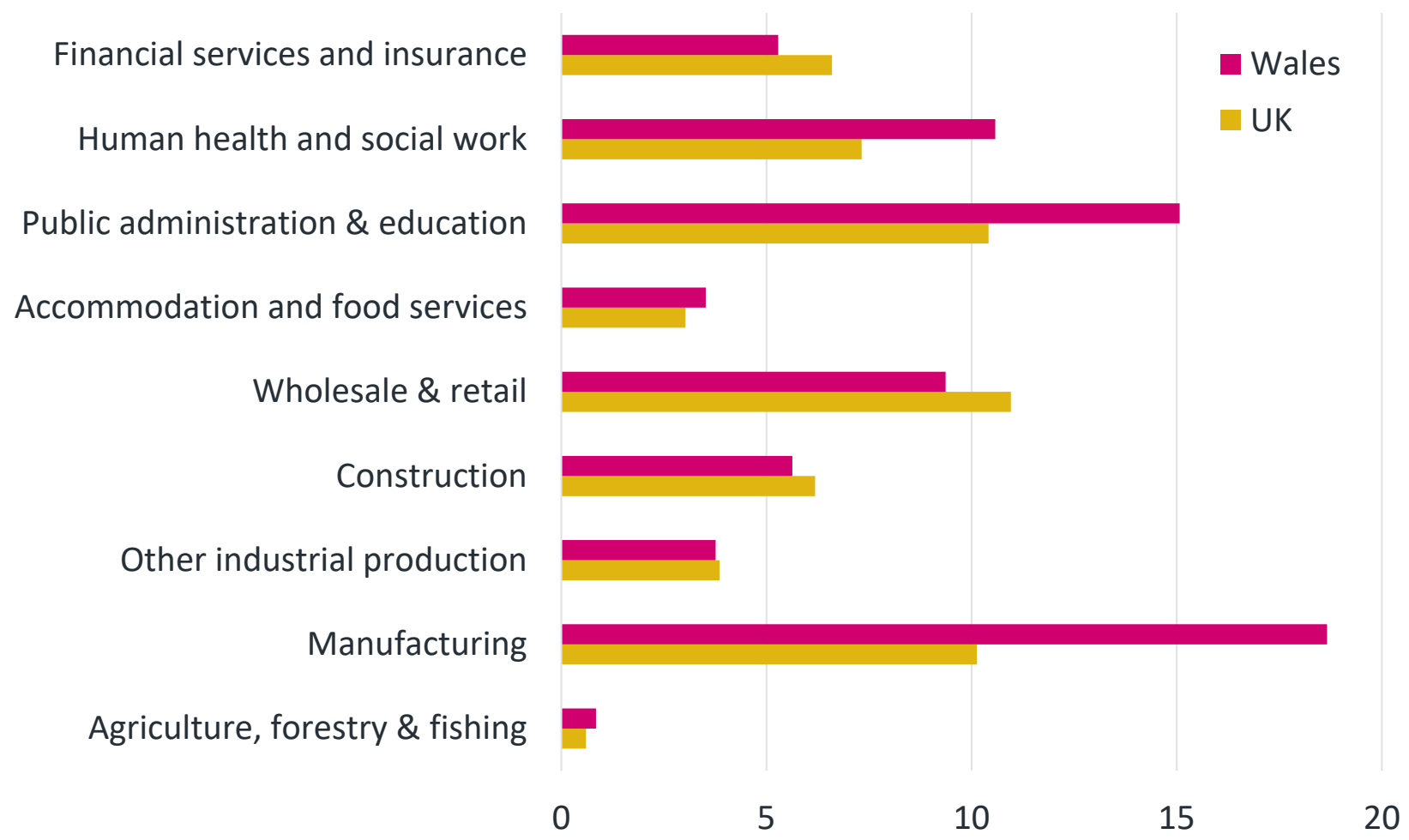
# How will the impact differ across sectors?

- Most sectors affected in the same direction as the average
- Exceptions: agriculture, fishing, food processing
- Impact on services and manufacturing could differ
  - Leaked government analysis suggested non-tariff barriers on average lower for services trade than goods trade
  - Service industries also less reliant on trade with the EU
  - But...
    - Existing FTAs do less to reduce barriers to services trade
    - WA/PD less explicit about future services trade relationship



# Economic activity

% of total economic output



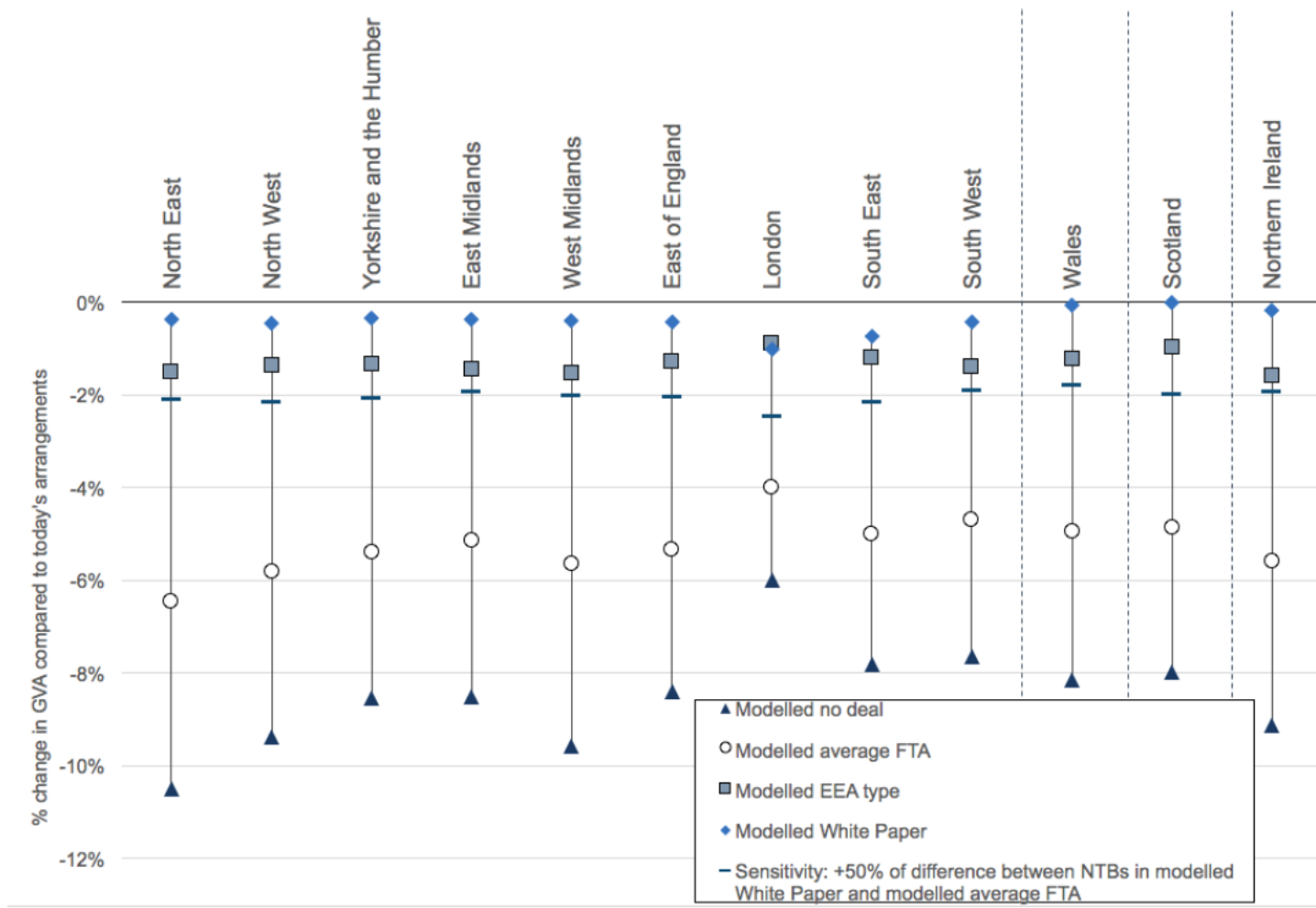
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# How will the impact differ across countries and regions?

- Studies generally look at impact based on current composition of economy
- Studies disagree about which areas will be most heavily affected
- Will depend on...
  - Composition of economic activity across countries/regions
  - Local reliance on trade with the EU
  - How responsive demand for goods/services are to price changes
  - How readily each area can adapt



# Estimated impact by country/region





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# How will the impact differ across income groups?

- All income groups relatively equally affected
- Low income – more affected by food price rises
- High income – more affected by lower wages and increase in prices of non-essential goods and services



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# What will happen in the short-term?

- Depending on how the negotiations play out, short-run could be significantly more or less disruptive than long-run projections suggest
- Amicable agreement + good progress in setting up new systems and infrastructure → smaller short-run impact
- No agreement + no transition → short-run impact significantly more disruptive than long-run WTO/UFT projections suggest
- Recent BoE analysis examined this question



# Conclusions

- Economic theory and evidence provides more insight into the long-term, rather than short-term economic impact of Brexit
- Wide variety of conclusions reached by different studies
  - Mostly not due to hard-to-fathom variation in underlying models
  - All UK economic commentators agree closer trade links boost growth
- Differences driven by variation in assumptions made about...
  - Whether there is a permanent impact on productivity growth
  - Size of trade barriers between UK and EU/non-EU
  - Changes to migration
  - Deregulation
  - Barriers to foreign investment



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# Welcome that the Government analysis...

1. Made assumptions transparent
2. Clarified migration and regulatory policy assumptions
3. Excluded non-Brexit policy changes
4. Clarified baseline/counterfactual assumptions
5. Made consistent and plausible assumptions
6. Provided a range of uncertainty
7. Showed the sensitivity of results
8. Set out regional and sectoral impacts

