

What are the costs & benefits of Brexit? Static Trade Models

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Based on joint work with Swati Dhingra, Gianmarco Ottaviano, Hanwei Huang & Tom Sampson

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WHAT THEY DON'T SAY ABOUT THE COMMON MARKET!

Some people complain that membership of the Common Market would cost the British housewife more. What they don't say is how much greater will be the prospects for her husband to earn more – the economic advantages leading to greater wealth for Britain and more money in wage packets.



Some people say the cost of food will rise substantially if Britain joins. What they don't say is that the additional rise in living costs is likely to be under 1/5 per cent a year for five years.

Some people say that membership would make life tough on families. What they don't say is that standards of living in all Common Market countries have been rising much faster than in Britain – in some cases, almost three times as fast.



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The Main Benefits & Economic Costs of Brexit

- 1. Historical approach** – what has the EU done for UK?
(Crafts, 2016, summarizes as benefit of ~10% of GDP)
- 2. CEP: Future looking** – what are likely effects of Brexit?
 - **Brexit Benefits**
 - Net fiscal contribution (~0.31% of GDP)
 - Regulations; New Free trade deals
 - **Brexit Costs**
 - Less trade with EU
 - FDI; Migration

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 - **Summary: Net Cost** of Brexit -1.3% to -2.6% of GDP (£850 to £1,700 per household) from standard static model;
 - Rises to -6.3% to -9.5% when include dynamics
 - Other benefits need to be big enough to pay this price
 - Or, as one potential referee helpfully put it:



Daniel Orgel
@DanOrgel



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Even if this bullshit was true, its a small price to pay for democracy, sovereignty and to control our borders

John Van Reenen @johnvanreenen
My new work on #Brexit: households lose £850 to £1,700 from static trade loss bit.ly /1pOoWfe Up to £6,400 in long-run

10:32 AM - 19 Mar 2016



Static Trade Model Analysis

- Build standard trade model based on Costinot & Rodriguez-Clare (2013) - Structural Gravity Model
 - Key insight that welfare effects of falling trade costs have similar structure across many models
 - Multiple sectors; intermediate Inputs
- Industry-level trade elasticities (effect of income on import demand) from Caliendo & Parro (2014)
- **WIOD Data:** Divide world into 35 regions & 31 sectors; full bilateral trade matrix

Trade Effects

- How would trade change between UK, EU & non-EU countries relative to staying in?
- **Tariff Barriers**
- **Non-Tariff Barriers** (border checks, rules of origin, anti-dumping threats, regulatory differences)
- **Future integration:** how much lost from not being fully part of deepening of the Internal Market?
- Depends on post-Brexit policies so consider realistic *optimistic & pessimistic* case

Counterfactual change in trade costs

- **Tariff barriers**

- *Optimistic*: UK “does a Norway” & gets full access to Single Market in goods & services
- *Pessimistic*: UK like normal WTO member with MFN tariffs

- **Non-tariff barriers**

- *Optimistic*: increase 2% (1/4 of reducible trade costs between EU & US)
- *Pessimistic*: increase 6% (3/4 of reducible trade costs)

- **Future EU integration**

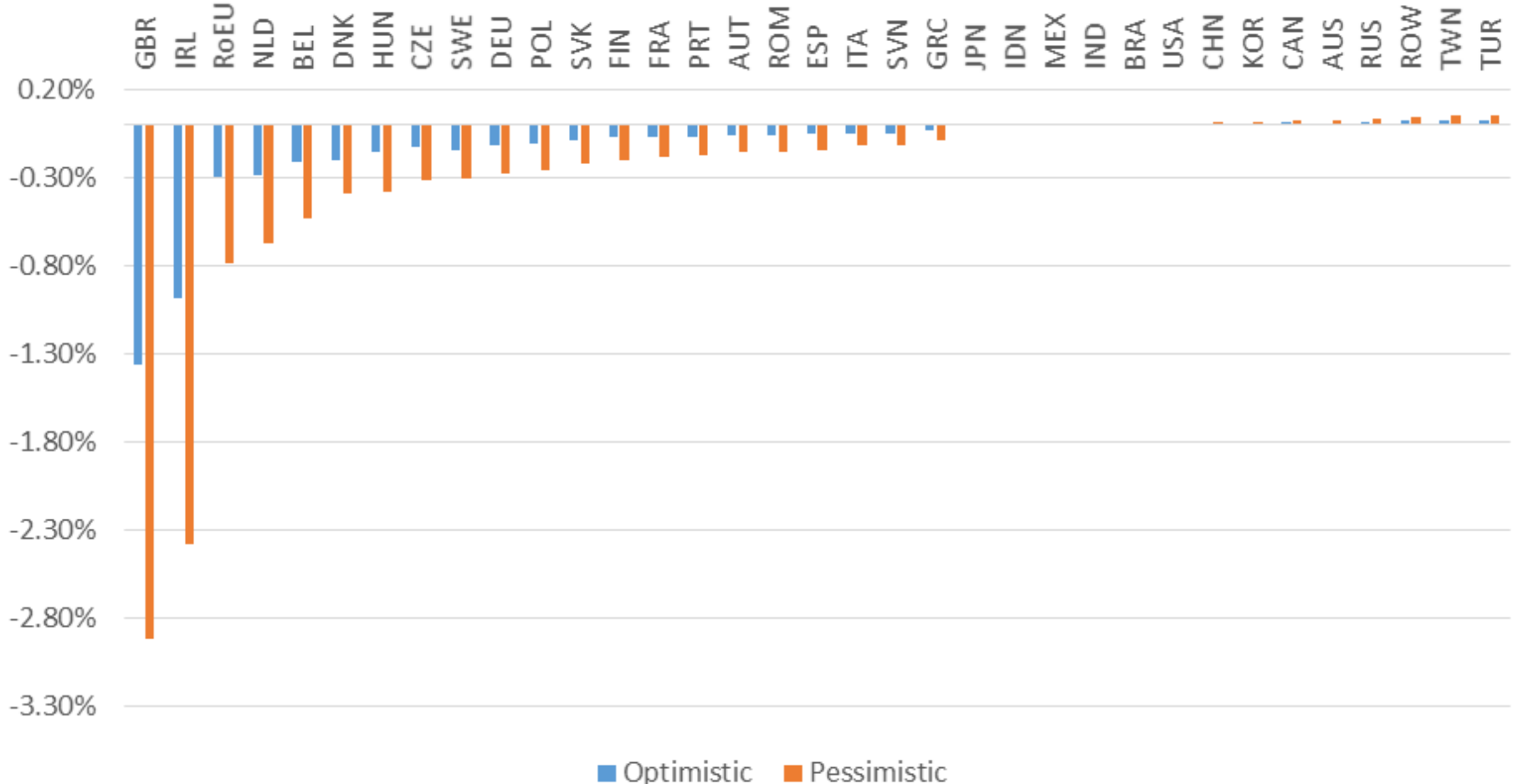
- *Optimistic*: 5.7% fall in within EU trade costs next 10 years
- *Pessimistic*: 12.8% fall (1995-2005 average)

Static Effects of trade on national income

	Optimistic	Pessimistic
Trade effects	-1.37%	-2.92%
Fiscal benefit	0.09%	0.31%
Total change in income per capita	-1.28%	-2.61%
Income change per household	-£850	-£1,700

Notes: Dhingra et al (2016). *Optimistic:* UK like Norway; ¼ of non-tariff barriers; future barriers within EU fall 20% faster than Rest of World; save 0.09% GDP from lower fiscal transfer (17% of 0.53%). *Pessimistic:* UK a standard WTO member like US; ¾ of non-tariff barriers; future barriers within EU fall 40% than Rest of World; save 0.31% of net fiscal transfer

Welfare effects on other countries



Note: Fiscal contributions not included as we do not know how the fiscal costs of Brexit would be distributed across EU member states.

Is our 'pessimistic' case actually too optimistic?

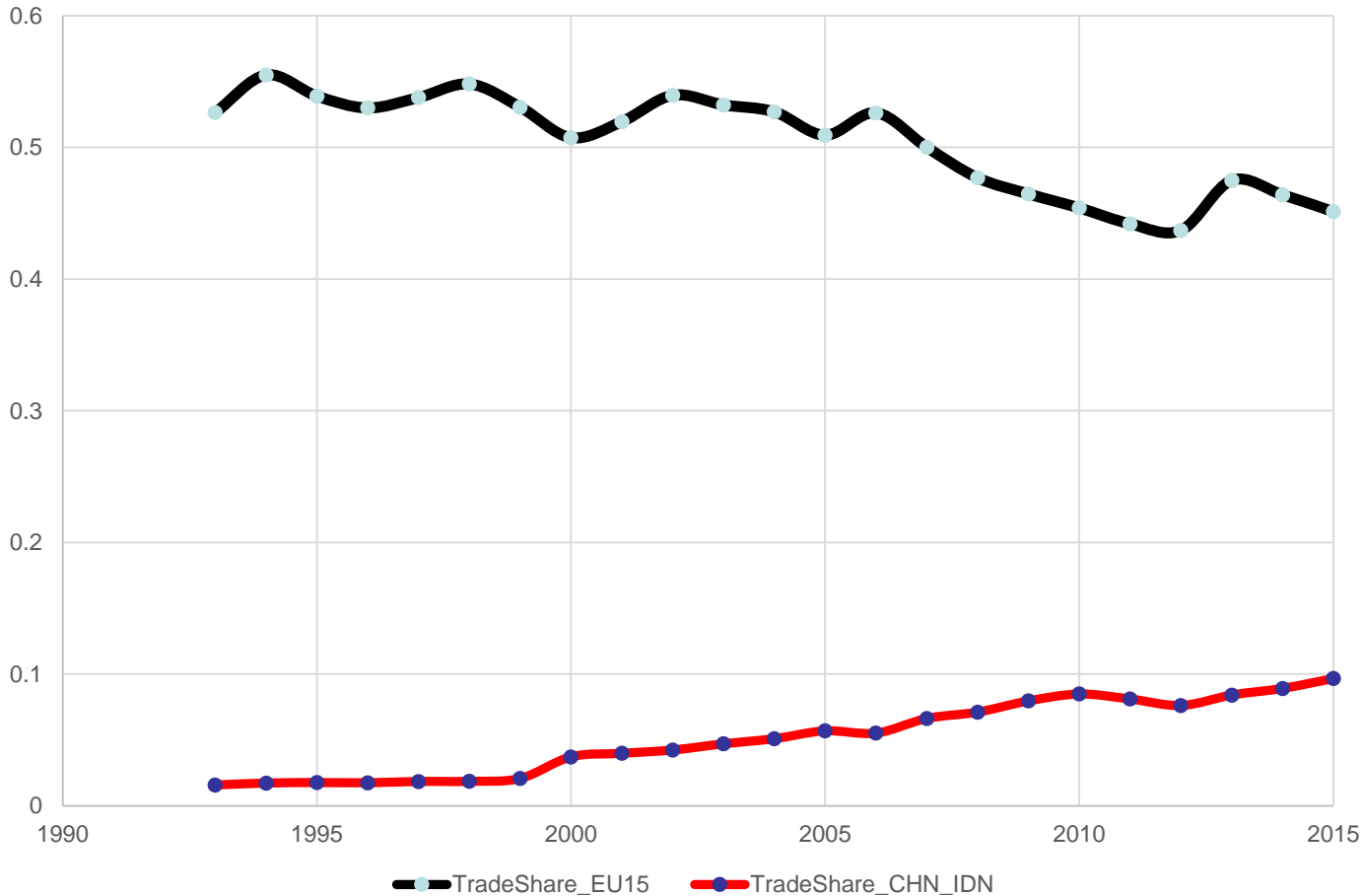
- Leaves out dynamic effects due to competition, selection, scale & varieties. Will increase productivity
- Solution? Look at actual trade liberalizations & EU history
 - Being in EEA/EFTA means over 25% less trade than being in EU Baier et al (2008)
 - Trade effects on income from Feyrer (2009) $e=0.5-0.75$
- **Implies a fall of 6.3% to 9.5% of GDP**
- NB: Similar to reviews of benefits of EU to UK in past

Summary

- Standard, static structural gravity model
- Real income losses of 1.3% to 2.6%
 - Over three times larger if include dynamic effects
- A small price to pay for freedom?
- Or: a unnecessary shock to the UK & world economy?

Back Up

Share of Trade with EU falling because of Asia shock



Some Further reading

- [CEP BREXIT webpages: http://cep.lse.ac.uk/brexit/](http://cep.lse.ac.uk/brexit/)
- [Technical Paper: http://cep.lse.ac.uk/pubs/download/pa016_tech.pdf](http://cep.lse.ac.uk/pubs/download/pa016_tech.pdf)
- [Trade & Innovation: http://www.voxeu.org/article/who-s-afraid-big-bad-dragon-how-chinese-trade-boosts-european-innovation](http://www.voxeu.org/article/who-s-afraid-big-bad-dragon-how-chinese-trade-boosts-european-innovation)
- [Regulation: http://blogs.lse.ac.uk/politicsandpolicy/evidence-based-policy-beecroft-van-reenen/](http://blogs.lse.ac.uk/politicsandpolicy/evidence-based-policy-beecroft-van-reenen/)