

## **Rebuttal of LSE press release**

The Treasury used the LSE gravity model methods. This is widely agreed to be flawed because these equations are simply ‘associations’ not causal relationships. However the Treasury used these directly. Now the LSE team agree that this was inappropriate and that a CGE model should have been used. So in recent work the LSE team have redone their calculations using a CGE model which they claim generates results consistent with gravity equation associations. However on the key driver of FDI they continue to use the gravity model because they cannot embed FDI in their CGE model. Therefore it is really not clear whether LSE have made much progress with finding a structural model for Brexit that embeds all the features they think of as important.

The problem even with the CGE model they have is that the ‘consistency’ they talk about is with short term behaviour of trade, which is irrelevant to the policy issue in hand. What is needed for the Brexit debate is a model of long term, indeed very long term behaviour. In the long term all the ‘stickiness’ in the gravity equations will disappear: competition dominates. There is limited evidence that these models can do a good job on long term trends.

To understand long term behaviour, well-trying trade models based on competition and broad sectors consonant with the key drivers of comparative advantage, namely factor abundance, are likely to be better. The trade model Economists for Brexit used is such a model. It performed well in explaining the long run trends in the world economy due to the major globalisation and technology shocks of the 1980s- ‘Trade, Technology and Labour Markets in the World Economy, 1970-90: A Computable General Equilibrium Analysis, (with Jonathan Riley and Eric Nowell), The Journal of Development Studies, Vol. 34, No. 2 December 1997, pp.1-34. This capacity suggests that it is well suited to evaluating a long run policy regime change like Brexit. One of the beauties of this model is the way in which its parameters can be recovered directly from data (such as on factor shares).

The LSE team attack the estimates of non-tariff barriers based on prices saying the price data does not allow for quality change. This is not so: the price indices in this data are adjusted for quality change, even if such adjustment is steadily being improved over time. In any case the data is across very broad categories of product for which this should not be much of a problem. With manufacturing prices it plausibly finds that the EU has 3 times more protection than the US.

For agricultural prices we used like many others the OECD calculations of the protective margin at 18%, as generated by the Common Agricultural Policy. This tallies rather well with estimates from other sources for the effect on food prices. The original estimates of Bradford for the early 1990s based on prices for food, using the same method we used for manufacturing, recovered estimates similar to OECD estimates of protection margins (see first edition of our EU book).

The point really is that non-tariff barriers are hard to estimate but everyone is agreed that they are important. Our method provides estimates that broadly tally with what we know from other sources.

The LSE team think it absurd that if these barriers were abolished prices would fall to the best world value. However one only has to look at markets like Hong Kong where products enter free of all barriers to see just how the best value comes to dominate over time. The best world value according to our data is usually sourced within the OECD from either the US or S Korea.

It may well be that if we could obtain data on China the gap would be a lot bigger; a crude calculation based on unit labour costs suggest a differential from Chinese best value of around 68%, more than 3 times our basic estimate from OECD suppliers.

In our work we made the cautious assumption that protection of both agriculture and manufacturing would fall to around 10% over the next decade. We did this so as to avoid exaggerations and excessive pessimism on our base comparison of Brexit with Remain. Thus our numbers are at the low end of the spectrum; if they were at the top end the gains would be much greater from Brexit.

But whatever the right estimate of protection is, it is clear that the LSE team agree it is highly problematic for our exporters to the EU; thus they cry 'havoc' about the perils of these firms on Brexit. Yet when they 'allow' for the fall in import barriers under unilateral free trade, they assume these barriers are a trivial 3%. But they are the self-same barriers that cause havoc for our exporters! What is sauce for the export goose is also the same sauce for the import gander.

At least the Treasury (and indeed most of the independent forecasters) have plainly assumed no lifting of import barriers by the UK on Brexit. This is a plain and admitted assumption- for example admitted by George Osborne under questioning from Jacob Rees-Mogg in the Treasury Select Committee. Indeed this was also the assumption made by LSE in their original work using gravity models that the Treasury and most independents have followed.

It is at once obvious that this is the glaring difference between our and all these other divergent studies that find Brexit has such negative effects. And the latest belated attempt of LSE to correct it by assuming trivial 3% import barriers are abolished is essentially no different.

When we apply the unilateral free trade model symmetrically to imports and exports, the big fall in import and so consumer prices stimulates the expansion of the unprotected service sector and directly raises consumer welfare. This is how we get a gain of 4% in both GDP and consumer welfare.

Why have these bodies/forecasters made this asymmetric assumption? They have mostly said that the reason is the 'political impossibility' of unilateral free trade. This is also the IFS interpretation when they survey all these studies. They all argue that no government would dare do it because of popular opposition.

There are two objections to this approach:

- 1) it is not for economists to determine what is politically feasible; instead their job is to offer options from which voters and politicians can choose. The example of New Zealand in the late 1980s shows that the option both exists and may be chosen: the country unilaterally dismantled its high tariffs with considerable success in stimulating a moribund economy.
- 2) in the UK currently 92% of the employed population work outside EU-protected sectors; why would they not want lower prices with these protected industries standing on their own two feet, with some exceptions made for non-economic reasons? In a referendum the people are consulted on this question, whereas these trade barriers were all erected by bureaucrats and lobbyists behind closed doors, while concealing the effect on prices from the populace.

The bald truth is that if one makes the symmetrical assumption then Brexit is a move to global free trade from limited regional free trade. All theorists of trade agree that more free trade is better than less- whether they subscribe to standard CGE models like us, or 'new trade theory' a la Krugman, or 'new new trade theory' a la Melitz and the LSE group. The only question is how big the gain would be. We have used the standard well-tested trade theory because it does well on long term issues and is not vulnerable to all the criticisms we and others have levelled at gravity models. But at the end of the day all of them under proper symmetrical assumptions should give a plus, not a minus- which is the really important thing.

We think it is now desirable that all these modellers, Treasury, LSE, OECD, PWC, Oxford et al- perform a proper and honest scenario analysis of unilateral free trade and put this option on the table, instead of hiding it from view.

A last point about the unilateral free trade option: it is likely that our EU neighbours' manufacturing industries would not like this much as it would sharply lower their profits in the UK market. No doubt they will push their governments to do a 'free trade deal' with the UK for key products of theirs. This deal would in effect qualify the full unilateral trade option at least for a transitional period.

What this reveals is that the route to a 'deal' for post-Brexit ministers harassed by EU threats lies through the tough fallback position of unilateral free trade. Thus the role of this option is as much in achieving political peace via strategic bargaining with our neighbours in the short run as it is about the long run future under Brexit.

### **The Liverpool Model**

The LSE team have repeated some baseless accusations from Chris Giles of the FT about this model, which was the pioneering UK rational expectations and supply-side model of the 1970s and 1980s; nowadays models such as NIGEM have embedded these features, just like the rest of the macro-modelling consensus. We have used in our short run forecasts the same sort of models to supplement the Liverpool Model supply-side-based forecasts.

Here is a copy of the letter I wrote to the FT to correct these misapprehensions:

Sir, May I correct a few misapprehensions in Chris Giles' comments on Economists for Brexit? The Liverpool Model was used to help design the supply-side programme of Mrs. Thatcher, including union and benefit reform. Due to that programme, the UK became a successful entrepreneurial and fully employed economy. The model forecast for the effects of the minimum wage assumed that this minimum would become the thin end of a rising wedge; in fact, the Low Pay Commission held it down and, ironically, now this Conservative government is the one driving it up to dangerous levels. At Cardiff, my co-authors and I have for two decades been pursuing a large research programme in macro-modelling; the Liverpool Model has passed quite stringent empirical tests and we have also developed other models that complement it. Our work appears in good international journals and was used in our Brexit adjustments to the Liverpool Model. In our trade model for examining the long run effects of large changes in trade policy, the assumption of competition is appropriate; imperfect competition is fine for short run analysis but in the long run market forces dominate. Turning finally to our policy conclusions, there is no inconsistency between free trade in general and help for farmers and particular industries; indeed such flexibility strengthens the political feasibility of free trade as we see in the US.

yours etc

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