

ECONOMISTS — FOR — FREE TRADE

A Commentary on David Davis' Speech at Carlton House Terrace

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The Treasury is about to terrify us all again with forecasts of what will happen under various Brexit scenarios. As we all already know the Treasury has been against Brexit from the start. I will explain why a little later. But because of this anything other than no Brexit at all is according to the Treasury, bad for the economy. This even, we have been told in leaks of what the Treasury will say, includes the government's own proposed Brexit Withdrawal Agreement with the EU!

Let us however start at the beginning with the Treasury's forecasts for the effects of a Yes-to-Brexit vote in the referendum, made in May 2016. They said that in the year and half after the referendum the economy would contract by at best 0.1% and at worst 2.1%. In fact, it grew by 2.8%. - a cumulative error of pessimism of between 2.9% and 4.9%. The Consensus of forecasters was gloomy too; but not as pessimistic as the Treasury. They said growth over that year and half would only be 0.7%, with a recession immediately after the referendum. Their cumulative downside error was 2.1%. Of course, there was no recession but instead continuing growth at close to 2% a year.

Table: Forecasts of growth if Brexit Yes in referendum

Growth (%)	Second Half 2016*	Error	2017	Error	Accum. Error Q4 17 v. Q2 16
Latest ONS Est. (April 2018)	1.1		1.8		2.8
Treasury May 2016- severe shock	-0.9	-2.0	-1.3	-3.1	-4.9
..... shock	0.0	-1.1	0.0	-1.8	-2.9
Consensus July 2016	0.05	-1.05	0.6	-1.2	-2.1
Liverpool/EFT July 2016	1.3	+0.2	2.7	+0.9	+1.2

*growth of second half on first half required to hit Aug 2016 forecast for the year 2016, given ONS GDP estimates published July 2016.

+Smooth quarterly pattern assumed for both Liverpool/EFT and Consensus giving forecast year on year growth.

Why did the Treasury get this so wrong? There were two main reasons. First they took a very gloomy view of the long term effects of Brexit, mainly through trade but also over regulation and immigration. They thought this gloomy view would be shared by the markets. Second, they assumed that this gloom and the surrounding uncertainty would trigger a sharp change in investment and consumer confidence which in turn would cause the recession. As it turned out the markets did not take so gloomy a view; furthermore there was no collapse in confidence. There was certainly a reaction in sterling which fell by nearly 15%. But a fall was widely expected both because there was already a very large balance of payments deficit on current account (running at close to 7% of GDP) and because there would be a need to stimulate exports on leaving the EU and signing trade pacts around the world that would let imports in more freely.

That was then and this is now. So will the Treasury learn the lessons from their previous forecasting failures?

It does not look like it. The repeated leaks of the new 'Cross-Whitehall'/Treasury study have become a second Project Fear, with jaw-dropping falls in GDP forecast over the next decade and a half if there is No (Trade) Deal so that we leave on WTO rules, and even, though not quite so jaw-dropping, if there is a Canada+ Trade Deal. This time there is no forecast of the short run behaviour of GDP, except qualitative warnings of serious 'disruption' and 'possible recession'.

We have yet to see what will be forecast for the government's own planned Withdrawal Agreement Deal. We have now been promised a full report on this, against a benchmark status quo forecast. We also await impatiently the detailed report on the other forecasts of No Trade Deal and Canada+, on which currently we have the sketchiest of information, whether from leaks or from some two dozen PowerPoint slides that were reluctantly handed over to the Commons Treasury Committee.

Do not hold your breath. The Treasury viscerally opposes Brexit and the slightest deviation from the status quo, such as will occur even under the government's currently proposed Withdrawal Agreement, will elicit bad marks and be awarded a poor outlook.

But that brings us to the nub of the issue: why does the Treasury and the rest of Whitehall take such a gloomy long term view of our trade prospects as we open our economy up far more than before to free trade around the world, while also endeavouring to have good trade relations with our EU neighbours? This is a gigantic puzzle, which I now want to address.

It all began with Gravity

During the referendum debate and since, the Remain side relied on a 'consensus' of trade economists in favour of the 'gravity model'. The Treasury's case against Brexit was based on this, as has been the work at the London School of Economics (LSE) on which the Treasury relied for much advice.

A gravity model is in principle a full model of the economy open to international trade, investment and borrowing. It regards trade as an outcrop of internal trade, the only difference being that it crosses borders. Otherwise trade grows naturally due to the specialisation and division of labour within neighbouring markets. Viewed through the lens of the gravity model, a customs union merely makes official what is already a fact of neighbourly inter-trade.

Because it is hard to break into new and distant markets it makes sense in this approach to support existing markets.

Even though the EU protects its markets via trade barriers, this on the gravity view is good for the UK because it raises demand for our exports within the EU. Hence this school of thought is in favour of EU protectionism - it could be called 'neo-protectionist'. In general, free trade, according to the gravity approach, may or may not be good.

What are we to make of all this? Proponents of this gravity approach claim that it is supported by the 'facts' - consisting of many estimated relationships between exports and the GDP of the demanding countries, adjusted for distance.

The problem with this claim is that the classical approach to trade based on comparative advantage is also consistent with the same facts! This classical model was developed by the great trade theorists of the past two centuries - starting with Ricardo (1817) - and pursued in much empirical work based on it. The fact that these ideas come from a long tradition of thinking does not of course mean that they are thereby wrong because 'old'. We have also witnessed an earlier major reversal of classical thought, the Keynesian Revolution, which has now been largely ditched in favour of a return to classical principles.

The classical model assumes high competition across world markets, with world prices being the same across the world subject to transport costs and trade barriers; there is free entry into all industries so that prices equal average costs. Capital flows freely across borders in the modern world version, but each country has largely fixed supplies of other factors, namely unskilled labour, skilled labour and land. In this model, supply forces such as the supply factors and their productivity determine the size of a country's different sectors. Demand has an influence too on where trade goes.

Thus, it can be seen that the causal structure of the classical model is quite different from that of gravity thinking. In the classical model supply determines the essential structure of trade; demand adjusts to be consistent with this. In the gravity approach demand determines the structure of trade and in turn forces supply to adjust to this.

You might think from this account of the gravity approach that you would have expected to see - at the Treasury and at the LSE - a full trade model for the UK economy, in which all relevant elements were combined in a causally related way. Such a model is known as a 'computable general equilibrium' (CGE) model of the economy. But you would not have found one.

Instead you would have found one set of empirical associations between trade and trade regimes; another set of associations between trade and FDI; then another set of associations between FDI and productivity; and finally a model of the economy into which a productivity assumption from all these would be fed.

While all these empirical associations are based on data, they do not tell us what the causal origins of these associations are. There could be reverse causation (FDI could cause trade or productivity cause FDI; trade regimes could have been caused by closer trade), or simultaneous causation by a third factor (better policies could have led simultaneously to more trade, more FDI and more productivity). Association as is well known does not imply causation.

So the Treasury was chasing its tail with the methods it used during the referendum and after!

The good news is that by the beginning of this year they had discovered this error and had adopted a full trade model of the economy, as they should have done from the start. The model they have chosen, quite sensibly, is it seems a variant of the GTAP model from Purdue University in Indiana, which specialises in building very large models of trade across all countries and all sectors for evaluation of the effects of trade deals by governments and international bodies.

The bad news is that they have fed into this model a dog's breakfast of assumptions about what Brexit will do to the trade barriers between us and the rest of the world and us and the EU.

To these crucial assumptions I will turn in a minute.

What has become of Gravity in the Treasury's new GTAP model?

But before I do, you might reasonably ask me: what has happened to the whole gravity approach that so dominated the earlier discussion, now that the Treasury and Civil Service have adopted this full GTAP World Trade Model?

The answer is that in this Brexit debate it has become a small and weak element. Yes, of course 'gravity' (distance and size of other countries) affects the pattern of trade you do with them; so does history (empire, cultural contacts). With the 'death of distance' due to containerisation and the huge importance of services trade patterns everywhere have become more far-flung. But the key point about these patterns is that they pre-date Brexit and the effects of Brexit are across all trade, whatever the pattern. The pre-Brexit pattern does not directly tell us anything about the mechanisms Brexit itself has on trade and GDP.

Gravity creates two such mechanisms distinct from the Classical approach: 'imperfect' competition, whereby it requires significant price cuts to break into new markets, and the direct effect of trade via FDI on productivity. These two gravity mechanisms measure the importance of gravity in the new World Trade Model, the GTAP, that the Treasury has adopted. It so happens that GTAP does have imperfect competition, but the imperfection is not very great; competition is quite high. Also, GTAP has no direct link from trade to productivity; this is because there is no theory that provides such a link and so GTAP, being based on theory, does not include it. So, the GTAP model has just one rather weak gravity element.

Finally, you could ask whether the evidence favours gravity elements in a World Trade Model designed to match UK trade facts. We can answer this question because in a year-long study Yongdeng Xu and I tested our Cardiff World Trade Model both with and without gravity mechanisms. We found that statistically the Model with no gravity elements matched UK trade facts and was extremely accurate; whereas the model with full gravity elements was statistically rejected. This would suggest that the best model has no gravity mechanisms at all.

So in short gravity has all but disappeared from the debate in the Treasury's new model; and the UK facts suggest it should not be there at all for assessing the effects of Brexit on the UK.

The Policy Assumptions made by the Cross-Whitehall study- and their implications

The Cross-Whitehall study has made assumptions about 'general free trade via FTAs' that are conservative in the extreme. It has stated that gains from their general FTA assumption are only a 0.3-0.6% rise in UK GDP. From this it would seem that they assume either that EU trade barriers are rather small or that barriers are reduced by rather little. This is puzzling since current EU protection of food and manufactures including non-tariff barriers is authoritatively estimated at 20%. Interestingly, a recent study of Australian trade liberalisation over the past thirty years using GTAP finds that its GDP has been increased by 5.4% - a figure rather similar to the gains being discussed for the UK's Brexit liberalisation.

The other key assumption made by the Cross-Whitehall study is that large costs arise at the EU border for UK-EU trade even if we negotiate 'free trade' with the EU.

One element of this appears to be related to pure 'border costs'; such things as time to get paperwork agreed before ships are allowed to unload and full lengthy cargo inspections. However, such costs have been bypassed by the progress of technology and are illegal under WTO rules for customs procedures. Computerisation has more or less eliminated border costs among developed countries, since almost all cargoes are cleared before reaching port, with only some 2 per cent or so physically inspected and even this is taking only around a day typically. Prof. Dr. Michael Ambühl (ETH Zürich), who negotiated one of the Swiss-EU bilateral free trade deals, estimated that border costs were as low as 0.1% of the value of trade.

Another assumption in the Cross-Whitehall study appears to be that UK-EU non-tariff protection would spring up at the border after Brexit. The idea seems to be that the EU and maybe the UK too would claim that exporters do not satisfy required product standards; thus non-tariff barriers would sprout on the UK-EU border, regardless of any trade negotiations. However, current WTO rules outlaw such behaviour as illegally discriminative, given that existing product standards are already exactly obeyed on both sides.

Thus it is hard to understand the Cross-Whitehall assumptions on EU-UK border costs post-Brexit. Nevertheless, on the basis of these assumptions, the Cross-Whitehall model calculates large losses in GDP, variously amounting to between 3 and 7%, depending on the 'closeness' of the eventual EU arrangements. On our calculations, these costs are simply not there in the event of a free trade (Canada-plus) agreement with the EU. We have also made an assessment of the 'no deal' case within the Cardiff World Trade Model. In this case again non-tariff barriers and customs hold-ups are illegal but tariffs do apply; in the EFT assessment the tariff element damages the EU but not the UK essentially because given that FTAs have driven UK prices to world prices, tariffs in both directions must be absorbed by EU traders.

Table: Trade Effects under Brexit Scenarios According To GTAP-type model used by Whitehall

This Table summarises how based on available GTAP simulations we have reconstructed the assumptions made by Whitehall as well as their published impact on GDP according to the GTAP model; it sets them side by side with what the GTAP model would say based on the alternative assumptions explained above and an assumption for FTAs with the rest of the world that achieve the full abolition of EU protection of food and manufactures.

A: Whitehall Assumptions B: Variant Assumptions

Trade Barriers expressed as % Tariff Equivalent; Effect on GDP shown as % of GDP in italics

	Canada+	WTO	Canada+	WTO
Tariffs	-	4.5	-	4.5
<i>Effect on GDP</i>	-	<i>-1.0</i>	-	<i>-1.0</i>
New Standards	16.2	20.3	-	-
<i>Effect on GDP</i>	<i>-3.6</i>	<i>-4.5</i>	-	-
New Customs	5.8	5.8	-	-
<i>Effect on GDP</i>	<i>-1.3</i>	<i>-1.3</i>	-	-
Total Tariff Equivalent (%)	22.0	30.6	-	4.5
<i>Total Effect on GDP (% of GDP)</i>	<i>-4.9</i>	<i>-6.8</i>	-	<i>-1.0</i>
FTAs with rest of world				
<i>Effect on GDP (% of GDP)</i>	<i>+(0.3-)0.6</i>		<i>+4.0*</i>	
All Trade Effects on GDP (% of GDP)	-4.3	-6.2	+4.0	+3.0

*assume all EU protection of food and manufactures (20% average on each) eliminated via FTAs

The Cross-Whitehall study therefore reaches its conclusions that Brexit reduces UK GDP on the basis of untenable assumptions. When reasonable assumptions are substituted for the extent of the trade barriers eliminated against the rest of the world and for the trivial UK-EU border costs, this reduction is turned into a substantial increase on both the GTAP model. These gains are similar to those we calculate on the Cardiff/EFT World Trade Model which we describe next.

So how will a full Brexit impact on the economy?

Here I turn to the estimates made by Economists for Free Trade. Our short-term forecasting record over the Brexit period has been fairly accurate. On long term issues we have published a variety of research using their trade and tax/regulation models. Our trade model, as I have already said, has recently been tested statistically and found to match UK trade facts rather closely, while a 'gravity version' of it is in fact rejected by these same facts. Similarly, our tax/regulation model fits the post-war facts of the UK economy.

What are then the whole range of economic benefits we estimate from achieving a Clean Brexit - i.e., leaving the Single Market and the Customs Union, regaining control over our borders, laws, and regulations, freeing ourselves from the European Court of Justice, and having the freedom to establish our own trading relationship with the rest of the world? Over the past two years, we have reported at length on the long run effects of such a 'Clean Brexit'. Here I briefly recapitulate the arguments and findings from our research.

A Clean Brexit produces long-run gains from four main sources:

1. Moving to free trade with non-EU countries that currently face high EU protection in goods trade
2. Substituting UK-based regulation for EU-based Single Market regulation
3. Ending the large subsidy the 'four freedoms' forces the UK to give to EU unskilled immigrants
4. Ending our Budget contribution to the EU

The gains under (1) come about because elimination of the EU's protection lowers consumer prices and increases competition in our home market, so raising productivity across our industries. With the economy at full employment and a flexible exchange rate, any jobs lost in industries where higher productivity releases labour will be offset by extra jobs in other (unprotected) industries where productivity is already high and where demand is projected to expand. Calculations by EFT on the Cardiff World Trade Model assume cautiously that half the 20% protection of both food and manufactures is eliminated. Our estimates are that consumer prices will fall by 8% and GDP will rise by 4%.

For (2), models of the economy developed by Cardiff researchers assess the effects of regulation on the economy via their effect in raising business costs. They estimate that EU regulation has reduced GDP by around 6%; and that probably about a third of this can be reversed giving us a projected gain of 2% of GDP, or a growth rate 0.15% per annum faster over the next 15 years.

For (3), we have examined the costs to the taxpayer of EU unskilled immigrants owing to the entitlement to the full range of tax credits and other benefits, including free education and healthcare. A further effect is that wages of UK unskilled workers are depressed; this represents a transfer from unskilled workers to the consumers who use their products. A further relevant distributional element is that the taxpayer burden and wage effect are both highly localised in areas of immigration. From these costs, EFT find that Brexit would save 0.2% of GDP in taxpayer costs. Furthermore, there would be a particular benefit to UK low-income households of about 15% of their living costs from the combination of ending this unskilled immigrant subsidy and the trade-led reduction in the CPI.

For (4), EFT have followed the standard calculations made by the Office of Budget Responsibility and others, arriving at around 0.6% of GDP.

In total these four elements create a rise in GDP in the long term over the next decade and a half of about 7%, which is equivalent to an average rise in the growth rate of around 0.5% per annum.

‘No Deal’- what does it look like in practice?

The mantra of our opponents is ‘crashing out with no deal’. But in practice No Deal will incorporate by administrative cooperation all existing agreements that are quite uncontroversial- the ‘95%’ that is always said to be agreed already- on citizens’ rights, electricity in N Ireland, on aviation and so on.

The controversial parts that will need to be understood are on a World Trade Deal and the Northern Ireland border. The shape of these is not difficult to see. The World Trade Deal would simply say: we will move to WTO rules on trade, but for a time we would discuss a UK-EU FTA, thus keeping the no-tariff state. Article 24 of the WTO allows governments to notify the WTO of a planned FTA and to be allowed permission to keep the initial situation in place while this is negotiated over a reasonable period: this would imply keeping zero tariffs while negotiations proceeded. If we failed to agree an FTA, we would move to pure WTO rules with tariffs. As for the N Ireland border, as all sides have already admitted, there will never be a hard border there, either with an FTA (of course) or under WTO Rules. The usual devices of computerised pre-clearance, Trusted Traders and so forth of modern customs will be called upon to avoid it; the ERG and others have explained all this countless times, and no politician dare deny that this is what would happen.

To this our opponents say ‘the EU would play hard ball and would implement no cooperation’. Well, there is hard ball and there is war- war by administrative means. Does this make any sense between strong allies? I say to our opponents: sorry, but grow up. When the current deal is voted down in our Parliament, as it surely will be, the government will need to move rapidly so that when we leave, these practical cooperative actions are in place, whether spelt out or not. This is what ‘No Deal’ means.

Conclusions

I have summarised work done by the Treasury and its academic allies on the trade effects of Brexit on the UK economy, where controversy has been greatest. I have also reviewed the work by Economists for Free Trade that has been highly critical of the Treasury's methods and conclusions.

A key point I have made is that the Treasury and Civil Service work has taken a sharp turn in the past year towards better methods and has rightly abandoned the original Treasury methodology of gravity-based associations which are incapable of establishing causality.

My second key point is that nevertheless the Civil Service has continued to adhere to absurd and damaging assumptions about the extent to which FTAs with the rest of the world can reduce current EU protection and also about the trade and border barriers that would be created between us and the EU. These assumptions of theirs are almost impossible to justify, since such barriers would be illegal and the scope for reducing EU protection is very large.

It is time the Treasury and the rest of the Civil Service revealed for all to see what their assumptions are and confessed just why they continue to push them at us, when common sense and reality denies them robustly.

When the air has thus been cleared, we can proceed to a well-based Brexit.