The Changing Landscape of International Trade: Brexit and the Future of Globalization

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I. Introduction: The Beginnings of a New History?

The great English historian Eric Hobsbawm remarked in his book *The Age of Extremes* that it was easy to believe in progress at the start of the 20th century. There had been no major European war for almost 100 years. Sustained economic growth, widening democracy and globalization seemed to have gone up in tandem. This naïve optimism was annihilated in the horrors of the first half of the 20th century where rampant nationalism caused two catastrophic wars, economic depression and collapse of the global trading order.

Out of this destruction, the new foundations for globalization were underwritten by American hegemony. And by the end of the 20th century, even former socialist economies had rejoined the global trading order.

Fundamentally, the view long held by economists that trade was a win-win had been broadly accepted. This consensus over the benefits of trade, foreign direct investment and migration were underpinned by supranational organizations such as NATO, the WTO and the EU.

How different things seem today, just 17 years later.

In the wake of the global financial crisis, populist revolts have sprung up all over the world. In some respects, they reached their apogee last year in Brexit—Britain's fateful decision to leave the EU—and in the election of Donald Trump, an avowed economic nationalist. Of course, there are similar movements in other countries—Poland and Hungary, Le Pen in France, the AfD in Germany and so on. And populism is not monopolized by the right of the political spectrum—think of Podemos in Spain, Syriza in Greece and more recently the rise of Jeremy Corbyn in Britain.

The underlying motivation behind much of the populist wrath has been an explicit rejection of globalization. It's "us"—the heroic locals versus "them"—the foreign globals. Rather than seeing that there is a mutual benefit from playing by commonly agreed international rules, globalization is seen simply as a zero sum game where we lose and foreign exporters, foreign immigrants and foreign investors win.

II. Brexit

I am going to look at these issues through Brexit-tinged lenses. Before doing my personal Brexit to Massachusetts Institute of Technology last year, I was director of the Center for Economic Performance at the London School of Economics for 13 years. Since 2013, we have been doing extensive research into what might be the long-term economic impact of Brexit.

This meant that I had the dubious privilege of being heavily involved in the Brexit debate, such as it was. I traveled up and down the country from my hometown of Carlisle to being live streamed on top of London double-decker bus talking with grime rapper Big Narstie. And I had frequent media debates, most memorably when I and my fellow travelers were branded "Nazi Scientists" by Michael Gove, then Minister of Justice (who's now in charge of the Environment) for questioning his judgement that Brexit would be a great economic success.

II.i. The Simple Guide to Brexit Economics

Assessing the economic impact of Brexit is on one level incredibly simple. The EU has been able to radically reduce trade costs between

its 28 member states. This is only partly through reduced tariffs: it has been mainly through reducing nontariff barriers. The Single Market is a mechanism for having common regulations so that goods and services can be traded easily throughout the bloc of half a billion people. This is facilitated, of course, by the free movement of labor which is particularly beneficial for services.

The Single Market is a work in progress, but its historical success in raising trade levels amongst its members is not in serious doubt.

So when the United Kingdom does leave, it will inevitably face higher trade costs with the rest of the EU compared to staying in. Since the U.K. will remain geographically close to the EU (even Boris Johnson can't shift plate tectonics), Britain will suffer increased costs with countries it will continue trading with. High continued trade is a result of the "gravity" relationship which is perhaps the most robust fact of the economics of empirical trade. It is simply the observation that countries who are geographically close trade more with each other than those who are geographically distant.

The reduced amount of fiscal transfers from London to Brussels is peanuts by comparison with this trade loss.

So the real issue of Brexit economics is not whether there will be a cost, but rather how big this cost will be and how much the damage from less trade can be limited.

II.ii. Putting Numbers on the Costs and Benefits of Brexit

Our academic work has tried to quantify the economic impact of Brexit. The most rigorous way to do this is by using a structural model of the economy—a Computable General Equilibrium Model. We build a standard "global value chain" model which allows for trade in intermediate goods and services across all sectors and all countries.

In implementing this analysis, a key question is what kind of deal Britain will strike with the EU after the conclusion of the Article 50 process in 2019.

The least damaging scenario is a so-called "soft Brexit" where the U.K. stays in the Single Market. In this scenario, the U.K. would be

like Norway, a member of the European Economic Area. There are still some costs like customs check and Rules of Origin requirements which have to be factored in. The fiscal saving is very small because Norway pays an "entry fee" which is equivalent to about 83 percent of what the U.K. currently pays on a per capita basis.

Putting these together, we estimate that a soft Brexit would cost about 1.3 percent in lost income, or \$1,100 per household (Table 1).

The main political problem with a soft Brexit is that this would mean accepting free movement of labor. It also means accepting the rules of the Single Market without having a vote on what these are. "Pay with No Say," as Richard Baldwin likes to quip.

At the other end of the spectrum is a "hard Brexit" where the U.K. trades under WTO rules, like the United States or Japan. This would mean paying tariffs as well as facing higher nontariff barriers. There is a bigger net fiscal saving.

On net, we calculate that a hard Brexit would double Britain's welfare losses to 2.7 percent.

Although Britain loses most, all European countries lose economically from Brexit with those more closely connected to the U.K. through trade links, like Ireland, losing relatively more (Chart 1).

Many other "in-between" scenarios can be modeled such as the Swiss case of scores of bilateral deals or the recent Canadian comprehensive free trade deal. There remain losses in all the scenarios we looked at.

One instructive alternative scenario is "Unilateral Trade Liberalization." This was promulgated by the free market wing of the pro-Leave movement. Here, the U.K. trades under WTO rules like hard Brexit, but simply abolishes all its import tariffs.

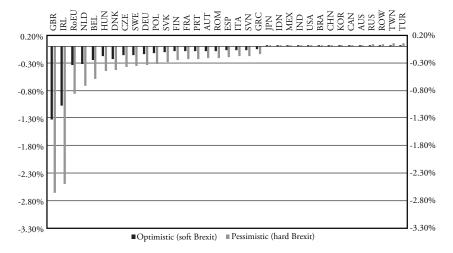
Given the general anti-globalization mood in the U.K., this does not appear to be a very likely policy. Nevertheless, we modeled this and found it does reduce the costs of Brexit. However, the offset is under a third of a percentage point—so the costs of hard Brexit falls from 2.7 percent to 2.4 percent. The reason for this is that rising

Table 1
Income Losses after Brexit for Average U.K. Household,
Structural Model

Panel A: Optimistic Soft Brexit Scenario	
Total Welfare Change	-1.34%
Income change per household	-£893
Panel B: Pessimistic Hard Brexit Scenario	
Total Welfare Change	-2.66%
Income change per household	-£1,773

Notes: Counterfactuals changes in welfare measured by consumption equivalent as specified by equation 5 with ρ =0.96. Fiscal benefit information comes from HM Treasury (2013). EU is defined as EU 28 minus the U.K. and Croatia. Panel A shows an optimistic scenario where U.K. could negotiate a deal like Norway and tarriffs remain zero. But nontariff barriers increase to one-fourth of the reducible barriers faced by U.S. exporters to the EU (2.77 percent increase). Further, the U.K. does not benefit from further integration of EU where nontariff barriers will fall 20 percent faster than in the rest of the world. (5.63 percent lower in 10 years). For the fiscal effect, we assume that U.K. could save 17 percent from the fiscal contribution to the EU (same as Norway) which is 0.09 percent of U.K. GDP. Panel B shows a pessimistic scenario where the U.K. and EU impose MFN tariffs on each other (see Table 1). Nontariff barriers increase to Three-Fourths of the reducible barriers faced by U.S. exporters to the EU (8.31 percent increase). Further, the U.K. is excluded from further integration of EU where nontariff barriers will fall 40 percent faster than in the rest of the world (12.65 percent lower in 10 years). For the fiscal effect, we assume that the U.K. saves more on fiscal contribution to EU budget which is 0.31 percent of U.K. GCP.

Chart 1 Income Losses After Brexit for Average Household by Country, Structural Model



Notes: The chart plots the welfare loss by country for the optimistic and pessimistic scenario. Assumptions are the same as the notes to Table 3. We assume that the other EU countries have to fill the budget hole left by the U.K. proportionally to their GDP. This brings them a net fiscal loss of 0.015 percent in the optimistic case and 0.051 percent in the pessimisitic case. The list of countries can be found in Table A.1. Source: Dhingra et al (2017).

trade costs after Brexit will primarily come from nontariff barriers. Since the U.K. will inevitably continue trading with the EU due to the law of trade gravity, this means that we will have fewer exports and imports.

Supporters of Unilateral Trade Liberalization claim vast welfare gains because they assume countries just purchase from the lowest cost producer whether that's in France or Fiji. But this ignores the reality of trade in differentiated products.

II.iii. Dynamic Effects of Trade Magnify the Harm

A more serious problem is that our approach is static, like all work-horse quantitative trade models. But there is a wealth of empirical evidence from "natural experiments" of trade liberalizations that trade stimulates higher productivity through many other mechanisms than just specialization such as greater competition, higher quality intermediate inputs, larger market size, reallocation away from less productive firms and so on. There has also been an explosion of theoretical models to help understand these effects, although none of them are well enough developed to calibrate with the empirical rigor we can bring to the static analysis.

What we can do, however, is to lean on empirical "reduced form" studies to assess these dynamic effects. In particular there are a large number of empirical studies of what has happened to trade when countries have joined different forms of trade arrangements such as the EU. The results of these empirical studies, built on the gravity equation, show large increases of trade due to joining the EU. Such studies suggest that U.K.-EU trade will be depressed by about a quarter after Brexit which actually matches up pretty well with what we find from the static structural model.

We then combine these trade losses with natural experiments using exogenous falls in trade cost such as Feyrer's (2009) study of opening up of land and air transportation routes. These look directly at the gross domestic product (GDP) effects of changing trade costs.

In GDP terms these estimates imply losses of income of 6.3 percent to 9.6 percent, tripling the losses from the static model.

One reason for these much larger losses is that Brexit is likely to have a chilling effect on foreign investment into the U.K. Foreign direct investment has many productivity benefits in terms of bringing in tougher competition, new technologies and managerial knowhow. Financial services, which bring in a lot of cash to the U.K., is likely to be particularly hard hit by being outside the Single Market.

III. Offsetting Factors?

Are there offsetting factors to reverse our conclusions on the negative effects on Brexit?

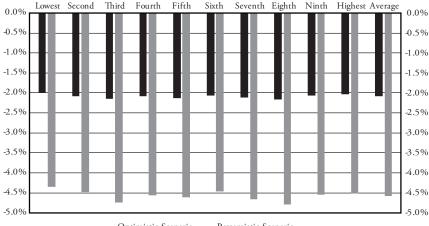
One view is that only the rich will bear the pain of Brexit. Looking at the distributional effects we find that far from being born just by the wealthy, the pain from Brexit is shared democratically across households of different income levels (Chart 2). Loosening ties with a group of nations with similar skill levels will not help prop up wages of the less educated. And despite all the rhetoric, EU immigrants are on average younger, more educated, more likely to work and less likely to claim welfare benefits than native born Britons. Hence, reducing their numbers to the "tens of thousands"—as promised by the current government—will hurt the public finances and do nothing serious to help pay, jobs or inequality (Charts 3 and 4).

Will the U.K. will be able to strike more and better trade deals with the rest of the world without the shackles of the EU? It is unlikely. First, the terms of any trade deal are likely to be worse, since the U.K. is under a fifth of the GDP of the EU and so has weaker bargaining power.

Second, the issue with modern trade deals is not just getting rid of tariffs. It is the painful negotiations of agreeing regulations over investment, occupation licensing and product standards, especially in services. This requires compromise and rules and some loss of sovereignty which is inevitable when doing deals.

And third, the question is whether the U.K. future deals can surpass the access to non-EU markets it obtains through both the current deals *and* any future deals the EU strikes with other countries.

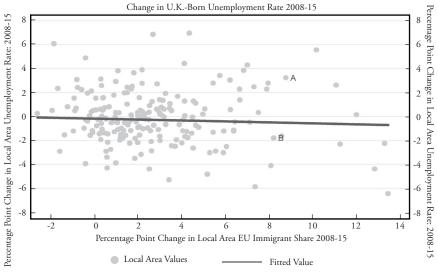
Chart 2
The Income Losses After Brexit Are Not Mainly Born
by Richer Households



■Optimistic Scenerio ■Pessemistic Scenerio

Notes: Predicted real income losses based on the present model, as calculated by Breinlich, Dhingra, Sampson and Van Reenen (2016). See Table A2 in their paper in the annex for the exact percentage changes for each income decile. Sources: Breinlich, Dhingra, Sampson and Van Reenen (2016), Labour Force Survey.

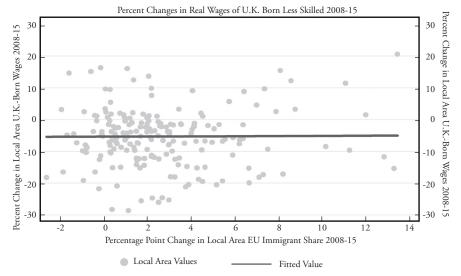
Chart 3 Large Increases in EU Immigration Have Not Significantly Harmed the Jobs of U.K.-born Workers



Notes: Each dot represents a U.K. local authority. The solid line is the predicted "best fit" from a regression of changes in unemployment on the change in share of EU immigrants in each U.K. local authority. These are weighted by the sample population in each area. Slope of this line is -0.04 with standard error of 0.05, statistically insignificantly different from zero.

Sources: Wadsworth, Dhingra, Ottaviano and Van Reenen (2016), Labour Force Survey.

Chart 4
Large Increases in EU Immigration Have Not Significantly
Harmed the Wages of Less Skilled U.K.-Born Workers



Notes: Each dot represents a U.K. local authority. The solid line is the predicted "best fit" from a regression of changes in unemployment on the change in share of EU immigrants in each U.K. local authority. These are weighted by the sample population in each area. Slope of this line is -0.04 with standard error of 0.05, statistically insignificantly different from zero.

Sources: Wadsworth, Dhingra, Ottaviano and Van Reenen (2016), Labour Force Survey.

IV. What Brexit Reveals About the Popular Will

What swung the Brexit vote was the disaffected northern heart-lands, the white working class bedrock of the Labour Party. As with Trump's Rust Belt ex-Democrats, these are people who feel left behind economically, socially and politically by modern Britain. Median real wages in the U.K. are still 5 percent below what they were a decade ago, prior to the global financial crisis. This is a worse wage performance than even the interwar period. People are justifiably angry and Brexit was a way to express their discontent. Many of them have been falsely convinced that their woes are due to immigration, despite the fact that wages were rising pre-2008 when immigration was going up just as fast.

But immigrants are globalization made flesh and are a convenient punching bag for the failures of financial regulation that propelled the crisis.

V. Conclusion: What's the Upshot?

Currently, the U.K. is in a truly chaotic state. The election has left the conservative government without a majority. Without leadership and with the hardest negotiation the country has had to face in decades, Britain is a poster child for how populism can cripple the decision-making process. We have to hope that somehow the country shakes itself into realizing the immense task that lies ahead. Even better would be to at least offer citizens a choice over what deal is eventually struck.

The historical problem Britain faces is that the fruits of economic growth, born from embracing globalization, have been very unequally shared over the last four decades. Those in the top third of the income distribution have benefited much more than the middle and the bottom. This can only go on for so long. When the crisis hit and political leaders stumbled, the nation howled and in my view, now committed an act of gross economic self-harm.

A similar story could be told of the United States. Rampant inequality and polarization has led to the election of an avowed proponent of narrow economic nationalism. To a greater extent than the U.K., President Trump is skeptical of international deals on trade, climate and even the military, such as NATO.

Britain and America are doing more to disrupt than defend free trade. The mantle is being passed to others in France, Germany, Japan and maybe even China. But will these countries also succumb to the Anglo-American disease?

All we can hope is that this is a pause in the progress toward peaceful economic integration rather than an abrupt reversal.

References

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More material is available at http://cep.lse.ac.uk/BREXIT/.