

Brexit Beckons: Thinking ahead by leading economists

Edited by Richard E. Baldwin



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A VoxEU.org Book

CEPR Press

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Foreword

Given its non-partisan remit, CEPR was not active during the UK referendum campaign. However, now that a decision has been made for the UK to leave the European Union we are keen to provide some analysis of the various options facing the UK. With this in mind we have brought together a set of experts to consider the very major choices facing the UK in deciding on the appropriate course of action in its dealings with the EU and the rest of the world.

The result of the referendum on 23 June 2016 has brought about significant challenges to European Union as a whole. For the UK, it means proposing economically and politically viable solutions for a new position within Europe. For the EU, it is a chance to address potential issues and usher in some useful reforms. The authors of this eBook aim to provide a means of moving forward for both parties by discussing some key consensus topics. These include trade agreements; ex ante costs to the UK; labour markets; globalisation; threats to the City; and the implications for Scotland, Ireland and the EU.

The eBook and the accompanying video interviews were put together extremely quickly by a team from CEPR and Econ Films. We are very grateful to Alessandra Swoboda and Simran Bola from CEPR, and Bob Denham from Econ Films for their hard work in pulling this project together. We are also grateful to Anil Shamdasani for his usual efficient work at producing this eBook on a tight timescale. CEPR, which takes no institutional positions on economic policy matters, is delighted to provide a platform for an exchange of views on this topic.

Tessa Ogden
Chief Executive Officer, CEPR
August 2016

Introduction

Richard E. Baldwin

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The 23 June 2016 Brexit referendum saw British voters reject membership of the European Union. This VoxEU eBook presents 19 essays written by leading economists on a wide array of topics and from a broad range of perspectives.

This introduction summarises their contributions, but first provides some background on the EU and the UK's relations with it. This is important. The Brexit decision is impossible to understand without a clear grasp of how Britain and the EU got to this juncture. I start with the 1945 worldview (Baldwin and Wyplosz 2015, Chapter 1).

From desolation to hope

In 1945, a family standing almost anywhere in Europe found itself in a country that was, or had recently been, (a) ruled or bombed by a brutal fascist dictator, (b) occupied by a foreign army, or (c) both. The old nation-centric way of governance – combined with an almost hallucinatory demonstration of the principle of unintended consequences – had left tens of millions of Europeans dead and the European economy in tatters. And this was not a new development. WWII was the fourth time in 130 years that France and Germany had been at the core of wars that applied the tools of the Industrial Revolution to the business of human slaughter.

These dire outcomes opened minds to radical thoughts. Something just had to change.

In the 1940s, the way forward was conditioned by people's thinking on what caused the war. Three explanations were ascendant: (a) Germany was to blame, (b) capitalism was to blame, or (c) destructive nationalism was to blame.

At first, the age-old reaction – explanation (a) – prevailed, but the Soviet Union’s implementation of its solution to (b) – imposing Communism on the European nations they occupied – quickly ruled out explanation (a). The West would need Germany on its side, so explanation (c) won out.

The US set up the Marshall Plan in 1948, and Europeans started to integrate economically in the 1940s and 1950s via the Organisation for European Economic Cooperation (the core continental nations went further in the coal and steel sectors).

European integration in the 1950s and 1960s was a smashing success. It fostered a rapid growth of trade, industry, and incomes – especially in those nations that fully embraced European integration. This overturned the received wisdom of the time. Trade barriers switched from the growth-enablers they were thought to be before WWII to growth-disablers. While intra-European trade liberalisation was happening, GDP growth was spectacular and industrial export growth was even more spectacular (Milward 1992).

European economic integration, it turned out, was an idea that made as much sense economically as it did politically.

Fork in the road: The EEC and EFTA paths

With Russian tanks redrawing borders in Eastern Europe, the Cold War threatened to turn hot. And with the US stepping back from its wartime engagements in Europe, Europeans could see that standing up to Soviet forces would require Germany to be strong militarily as well as economically. In 1950, this was a prospect that scared many Europeans, including many Germans. The solution was to embed European nations into a supranational superstructure.

The first attempts of the 1950s to share sovereignty (the European Defence Community and the European Political Community) proved to be too direct and they failed. The third try – the European Economic Community – won the day. It is important to remember, however, that for the drafters of the Treaty of Rome, economic integration was the means, political integration was the goal. The Treaty’s first line is: “DETERMINED to lay the foundations of an ever closer union among the peoples of Europe”. But this was turned on its head almost immediately.

Charles de Gaulle – a staunch defender of national sovereignty – won the 1958 Presidential election. Although he did not revoke the Treaty of Rome, he reversed the view of the costs and benefits. Instead of economic integration being the cost of achieving political integration, political integration became the cost of securing the gains from economic integration.

Britain, which had never been on board for the political integration, reacted in 1959 by forming a rival, purely intergovernmental organisation. The result – the European Free Trade Association (EFTA) – gathered the UK and with other European like-minded nations (Sweden, Norway, Denmark, etc.).

The 1960s and UK membership

The EEC's roaring economic success changed the political landscape. As the barriers began to fall within the EEC and within EFTA – but not between the groups – discriminatory effects appeared. This discrimination meant lost profit opportunities for exporters in both groups, but the EEC's market was twice the size of EFTA's and growing far faster.

EFTA's exporters – especially British exporters – started clamouring for equal access to the EEC market.

As history would have it, the British government was the first to react; it applied for EEC membership in 1961. This was nixed by de Gaulle, but after he lost power, the UK joined in 1973, along with Ireland, Denmark, and Norway. Norway and Britain held referendums: the Norwegians said 'nei'; the Brits said 'yes'.

The upshot of all this was that by the mid-1970s, trade arrangements in West Europe had evolved from two non-overlapping circles (EEC and EFTA) into two concentric circles. The outer circle formed an implicit free trade area encompassing EFTA and EEC nations. The EEC, which formed the inner circle, entailed much deeper economic integration – the Common Market, as it was called. This included the free movement of goods, services, capital, and workers, and the political infrastructure to run it.

When the inner circle decided to deepen the Common Market into the Single Market in 1986 – encouraged by UK Prime Minister Margret Thatcher, among others, and guided by Lord Cockfield’s White Paper – the threat of new discrimination appeared. The EFTA nations left out of the Single Market did not face tariff discrimination, but rather a more subtle form of discrimination related to non-tariff barriers affecting services, investment, and what we would today call ‘global value chains’ (Baldwin and Flam 1994).

The effects may have been subtle; the political reaction was not. The formation of the Single Market triggered a domino effect just as the formation of the European Economic Community had done. To redress this discrimination, the EU and EFTA negotiated the European Economic Area (EEA) agreement, but during the negotiation it became clear to all that participating in economic integration of this depth without political representation in the EU was an unattractive package. During the EEA talks, all the EFTA nation governments applied to join the EU. (The fall of the Berlin Wall was also critical.)

Norwegians, who had a choice between the EEA and membership in the EU, again said ‘nei’ to the EU. The Swiss government, whose voters had earlier rejected the EEA, had to scramble to gain as much Single Market access as possible on a bilateral basis (the so-called Bilateral Accords).

This is how the EEA agreement, or the ‘Norway option’ as it is known in Brexit parlance, came about. It allows for the free movement of goods, services, capital, and people, but no formal input into the continuously evolving Single Market rulebook. Nevertheless, EEA members must adopt all new Single Market rules in order to keep the ‘single’ in the Single Market.

Importantly, the switch from the Common Market to the Single Market turned the ‘free movement of workers’ (you had to have a job to move) into the free movement of people (EU citizens have a right to live anywhere in the EU with or without a job). This provision, for example, is what lets British pensioners live in Spain.

The free movement of people was also one of the most contentious issues in the referendum. Some argue that it was the main issue.

Deconstructing the Brexit vote

UK citizens were asked, “Should the United Kingdom remain a member of the European Union or leave the European Union?” This was a multiple choice test: the possible answers were “Remain a member of the European Union” or “Leave the European Union”.

About 72% of eligible voters cast a ballot. 52% of these chose Leave. According to a poll conducted on the day of the vote (Ashcroft 2016), the young and employed preferred to Remain:

- 73% of 18 to 24 year-olds voted Remain;
- 60% of over-65s voted Leave;
- A majority of those with jobs voted Remain; and
- A majority of those without jobs or retired voted Leave.

This was not a vote along party lines. Among the Leave voters, 40% declared themselves as Tories and 20% as supporters of the Labour party. Among the Remain voters, 30% said they were Tories and 40% said they were Labour-leaning voters.

There was also a great deal of difference between the two groups in terms of how serious they thought the decision was. Among the Remain voters, 77% thought “the decision we make in the referendum could have disastrous consequences for us as a country if we get it wrong”. Among the Leave voters, 69% thought the decision “might make us a bit better or worse off as a country, but there probably isn’t much in it either way”.

What did they vote for?

Looking to the future, a critical question is: What were the Leave voters voting for? This question, however, was not on the ballot, so no one really knows the answer. During the campaign, the Leave campaigners at first refused to clarify what would come next, and then provided conflicting answers ranging from tight economic integration (the Norway option, that is, EEA membership), to the ‘Canada option’ of a free trade agreement, to no special integration at all (the WTO option).

Voters, in other words, could not be sure what they were voting for – only what they were voting against. This plain fact, however, has not stopped analysts from trying to define what voters were against. In particular, some of the hardline Brexiteers, who oppose the Norway option, assert with absolute certainty that the voters voted against free immigration. More generally, this “Why did they vote to leave?” question has become something of a Rorschach blot test. The response tells you more about the beliefs of the responder than it does about the beliefs of the voters. It is as if they mentally regress the vote pattern against a single explanatory variable, find a good fit, and declare the result to be the truth. Fortunately, we have somewhat better evidence.

Some instant econometrics, which is the best we have to date, shows that the correct answer is surely complex. Clarke (2016) reports analysis that combines data on the characteristics of people living in 378 of Britain’s 380 local authorities with district voting patterns. The econometric methods are not clear from the report of the result, but he seems to have controlled for district-specific effects and all the characteristics on which he had data.

He finds that living standards, demographics, migration (especially recent increases in migrants), culture, and a feeling of community cohesion were all significant factors in explaining the Leave vote. Surely more solid research is needed to identify what voters wanted on 23 June 2016, and what they want going forwards.

In her chapter on Brexit and globalisation in this eBook, Diane Coyle points out there seems to have been some association between voters who have suffered from globalisation and those that voted for Leave. For example, Leave was especially popular in the Midlands and North of England, where deindustrialisation struck hardest and where average incomes have stagnated. By contrast, London – an area that has thrived in a more open world – had a very high share of Remain voters.

Kevin O’Rourke argues in his chapter that it has long been obvious that globalisation can leave people behind and that ignoring this can have severe political consequences. As the historical record demonstrates plainly and repeatedly, too much market and too little state invites a backlash.

David Miles, in a chapter that reflects upon voters’ motives, notes that we really cannot know whether the economic advice – advice that almost universally pointed to

significant costs of leaving the EU – was ignored. First, economists do not have a good grasp on the most important economic issue, namely, productivity growth. Second, voters may well have noted the cost estimates but decided that this was a price worth paying for the repatriation of policy autonomy over things like trade policy.

In his chapter, Nauro Campos assesses the quality of the advice offered by economists in the run up the referendum. He argues that while gaps in knowledge may have hindered forecasts, Brexit can essentially be put down to three things: an unnecessary manifesto pledge by David Cameron, a lack of engagement by the City in the Remain campaign, and the pro-Brexit stance of some of the UK's major newspapers.

Economic policy implications for the UK and EU

The EU is a group of nations that pool sovereignty over various policies. 'Pooling' in this sense of the word varies according to the policy areas. In some areas – like trade, competition policy, agriculture, and policing of subsidies – the member states have fully ceded direct control to the EU. The member states and the people are still in control, but individual nations have to accept that they can be outvoted and yet still be bound by the decision. This is how normal democracies work. Each constituent state elects a representative and the representatives vote on what to do. When a decision is made, every state is bound by it – even those whose representatives voted against the decision.

Be that as it may, the key point is that UK policy in many areas has been made at the EU level for decades. Leaving the EU thus means that the UK will have to replace EU policies, rules, and agreements with British policies, rules, and agreements. As we shall see, this will prove a massively complex task. This section covers the main elements of this challenge. It provides background for the choices and reviews the contributions by the authors of the various chapters.

Trade policy

The UK's trade policy is crafted in Brussels under the political guidance of all EU leaders, one of which is the British prime minister. As this has been the case for the past four decades, almost every scrap of existing British trade policy will have to be

reconstituted. As Jim Rollo and Alan Winters put it in their chapter, “[t]he UK now needs to debate and define its ambitions for international trade and then negotiate them with its partners”.

This will be a challenge along many dimensions. It is useful to classify them into three categories:

- Reconstructing UK-EU trade relations;
- Disentangling the UK’s and EU’s WTO memberships; and
- Reconstituting the EU’s trade agreements with third nations.

The first is by far the most important economically, since over half of the UK’s trade in goods and services is with the EU, and the same is true of the UK’s foreign investments.

Options for UK-EU trade and investment relations

Although nothing is certain at this point, the authors seems to agree that there are essentially three options for the UK, as Angus Armstrong points out in his chapter.

- First is the ‘Norway option’, which entails almost full participation in the Single Market, where this means free movement of goods, services, capital, and people.¹

This would avoid disruptions to the European-wide supply chains that are so important to UK manufacturers (especially in the auto and aerospace industries). Particularly important is the recognition of UK product standards as valid for exports to all EU markets (this principle is called ‘mutual recognition’). The most important application of this is to the UK’s services exports, and the largest of these by far is financial services.

Under the Norway option, UK banking and financial service regulation would be automatically ‘mutually recognised’ as good enough, and thus all EU members would have to automatically grant full access to UK-based firms. This is called ‘passporting rights’. Specifically, this grants banks which are regulated in the UK – either UK-

¹ The Norway option does not include free trade in food, or participation in EU agriculture subsidies or in the EU’s regional policy, and nor does it require Norway to adopt EU trade policies with respect to non-EU nations.

owned or UK subsidiaries of overseas banks – the right to establish branches or carry out cross-border activity in the rest of the EU and other EEA states.

Patricia Jackson argues in her chapter that only some of the London-based service sector needs passporting rights. London, after all, is a global as well as a European hub. Moreover, there is a provision in the EU's 'Markets in Financial Instruments Directive' that allows non-EU banks to attain access. It is possible, maybe even likely, that the UK would win this status, but it would convert what is now a right into a privilege that could be granted or withdrawn at the discretion of the relevant EU decision-making body.

The problem, though, is that even slight damage to the City's attractiveness can have national consequences given the sector's size. As Michael McMahon notes in his chapter, financial services generate 3% of the jobs in the UK as well as 8% of the income and 11% of total British tax revenue. The sector also generates a massive trade surplus – over 3% of GDP – that helps reduce the UK's overall trade deficit.

The Norway option, however, would still involve some new barriers to trade, as Angus Armstrong points out in his chapter. Unless Britain also joins the EU Customs Union (i.e. adopts trade policy with respect to third nations that is identical to that of the EU), UK exports would be subject to 'rules of origin'. These rules, which would be needed to ascertain that British exports were actually made in the UK and thus eligible for duty-free treatment, would be invasive and expensive, especially in industries such as auto and aerospace.

As could be expected, the Norway option comes with responsibilities as well as rights. According to current EU practices, maintaining this level of economic integration would require the UK to contribute to the EU budget, albeit at a diminished rate since UK farmers and UK regions would no longer receive EU funds. Additionally, the nation would have to pass into UK law all the future rules and regulations that concern the Single Market, or risking losing Single Market access.

Overall, the Norway option would keep the UK almost as integrated into the EU market as it is now. This is no small gain, as the EU market encompasses about 500 million consumers and almost a fifth of world income. The really big change would be the loss of direct influence over the regulations that British industries and banks would have to follow. Specifically, it would lose political representation on the bodies deciding the

new regulations. The UK and UK-based firms could continue, however, to participate in many of the committees that undertake the pre-legislation work (what is known as ‘comitology’ in EU jargon).

- Second is the ‘Canada option’, which means free trade in most industrial goods and some liberalisation of services and investment flows, but no passporting and no automatic right for Brits to work in the EU or for EU citizens to work in Britain.

This would be a clear deterioration of the economic integration that now exists between the UK and the EU. The result would surely mean that there would be some relocation of industry and services to the EU, and some reduction in the relative wages and salaries of UK workers in order to restore competitiveness. (See the chapter by Swati Dhingra and Thomas Sampson for a discussion of the economic impacts of the three options.)

The attraction of this option for many voters and politicians is that it would end the free movement of people to and from Britain. Immigration has been a major issue for Britain. Over the past two decades, EU nationals rose from 2% of the working-age population in the UK to over 6%, as Barbara Petrongolo points out in her chapter.

The EU migrants are on average younger, more educated, and more likely to be in work than the UK-born population, so what would be the economic impacts of ending this? Petrongolo discusses empirical research that has clearly demonstrated that migration leads to positive economic outcomes at the aggregate level in terms of growth and net fiscal receipts, even if it can result in important problems for some local workers. The timing of the immigration surge, however, may have driven a wedge between voter perceptions and empirical realities. Many of the new migrants arrived during the Great Recession when the native unemployment rate was rising and their real wages were falling.

Interestingly, the evidence tells us that one group does suffer from the arrival of new migrants, namely, the pre-existing immigrants. It seems that the new immigrants are closer substitutes for earlier migrants than they are for native workers. Petrongolo notes that if new restrictions are introduced, the evidence suggests that they will not improve the prospects of UK-born workers, but might help earlier migrants.

- Third is the ‘WTO option’, which would see the imposition of tariffs against UK goods and a rise in barriers to UK service exports (including the loss of passporting).

This option would be highly disruptive to the UK economy. As Jim Rollo and Alan Winters point in their chapter, the most-favoured nation option would mean that “around 16% of UK exports to the EU27 would face tariffs exceeding 7%, of which half would be motor cars, which would face a tariff of 10%”. Such tariffs would surely induce large parts of the UK car industry to ‘vote with their feet’ for the Single Market by moving to the EU. It was exactly this sort of relocation that drove EFTA governments in the 1990s to seek Single Market membership (Baldwin and Flam 1995).

Are these really the only options? Many pro-Leave analysts, including many in the UK government, are hoping that the EU will create a special Norway-lite deal where Britain would accept a reduction in Single Market access in exchange for some control over immigration from EU members.

As Paul De Grauwe points out in his chapter, it is unlikely that the EU would allow this sort of ‘cherry picking’ of Single Market policies. The main problem, in my view, is that the Single Market developed over decades and is now a finely balanced package of compromises. If the EU allowed the UK to pick and choose among Single Market measures, the integrity of the Single Market would be threatened as each of the remaining EU members sought to craft their own deal. The Single Market would become 28 single markets. To avoid Brexit disrupting its core economic integration, access to the Single Market will almost surely require acceptance of all four freedoms: goods, services, capital, and people.

Moreover, many of the sitting EU governments – each of which will have a veto over the likely future UK-EU trade deal – wish to avoid creating a comfortable halfway house that might incite their own anti-EU fringe parties.

WTO: Headaches and considerations

As is true with other aspects of trade policy, the EU has been negotiating on the UK's behalf in the WTO and its predecessor, the GATT. As a consequence, many of the UK's rights and obligations in the WTO are entwined with those of other EU members.

As Rollo and Winters point out, this involves some gritty problems. For example, as part of the last big WTO trade deal in 1994, the EU is allowed to continue providing trade-distorting agricultural subsidies to its farmers, but the overall amount of the subsidies is subject to negotiated caps. Problems arise from the fact that the caps are for the EU as a whole. After Brexit, this single figure must be somehow divided between the EU and the UK. Moreover, since the deal was struck with all other WTO members, the resulting division must be approved by all of these 160+ members. Thus, totally apart from any possible difficulties with the EU, the three-way negotiations with third nations could prove sticky.

Importantly, there is nothing intellectually challenging about such problems. There is even a possibility that the UK could be treated under the standard international law rules that apply to the succession of states. This would allow the UK to automatically inherit relevant parts of the EU's scheduled commitments in the WTO, along with all other WTO rights and obligations. This, however, would require sufficient goodwill towards the UK on the part of other WTO members.

The danger, however, is that some WTO members might use the occasion to ask for greater access to the UK market. One way to ease the problems would be to 'buy' agreements by lowering subsidies to UK farmers and/or improving third-nation access to Britain's food market. As half of UK farm income now come from EU subsidies, this would be disruptive.

Perhaps the most serious economic issue in the WTO package of Brexit problems is the WTO's Government Procurement Agreement (GPA). This is the agreement that gives British companies the right to bid for government purchasing contracts in other members of the agreement. As these members include most major economies, being part of this agreement is important economically for UK-based firms. Rollo and Winters, for

example, note that the annual value of procurement activities opened up by membership in the GPA is \$1.3 trillion.

One of the reasons that this could be difficult is that fact that the UK's participation in the GPA is only via the EU's participation in the agreement. If the UK does not accede to the agreement, the UK will lose its rights of access to all GPA members' procurement markets upon exit from the EU. Moreover, since the UK's procurement market is important globally, Brexit will change the deal that third nations struck with the EU on government procurement. In the world of trade, such changes trigger renegotiations to rebalance deals. In this way, Brexit will cause problems for the EU. This matters since all existing GPA members, including the EU, have the right to veto the UK's accession to the GPA.

While sticky and surely slow to resolve, the WTO headaches may not be a major source of problems since WTO members tend to apply the status quo until a new arrangement is negotiated – as long as everyone 'plays nice'. As Rollo and Winters point out, "maintaining the goodwill of trading partners should be a very high diplomatic priority".

Third-nation trade relations

As part of its EU membership, the UK is party to trade deals with well over a hundred countries. The deals include over 50 existing free trade agreements and many other agreements that are either provisionally agreed or under negotiation. A very large share of these are with the African, Caribbean, and Pacific Group of States (ACP Group), which comprises 79 developing nations – most of which are former colonies of EU members.

The agreements are a legacy of colonialism in a very special way. To avoid imposing new trade barriers when these nations first gained independence, the former colonists granted their ex-colonies preferential access, but they did this unilaterally. To maintain the integrity of the EU Customs Union, the EU rolled all these bilateral tariff deals into a sequence of large trade deals, the most recent of which is the Cotonou Agreement.

The UK will have to decide how it wants to address the various complicated issues surrounding these agreements. In the meantime, Rollo and Winters suggest in their

chapter that it would probably be best for the UK to unilaterally keep its current level of tariffs and other barriers with respect to third nations (and hope the third nations reciprocate).

The most commercially important third-nation agreements are those with Korea (signed five years ago) and Canada (recently signed but not yet implemented). In both of these, services play a role. Furthermore, the US has an FTA with both Korea and Canada. The Korea-EU FTA is similar to the Korea-US FTA, according to Rollo and Winters, so failure to secure an equivalent deal would present UK exports with disadvantages compared to EU-based and US-based competitors.

Ten Commandments for UK trade policy

Not all the authors in this eBook focused on Brexit headaches. In his provocative chapter, Simon Evenett argues that Brexit “affords the UK an excellent opportunity for fresh thinking and to break free of the missteps that so hampered EU trade policymaking”. He presents ten guiding principles that he hopes will make the trade policy challenges less daunting. The most practical one is that the UK’s unilateral trade policy, which is fully under its control under all three options, is perhaps most important. As Evenett notes, “UK policies towards openness and the promotion of competition in its own economy will have the biggest impact on British living standards”.

Other policies: CAP, cohesion and the EU budget agreement

The eBook unfortunately does not contain chapters on other important Brexit-linked problems such as those relating to agriculture, R&D policy, regional policy, and the EU budget.

The farm problem is a particularly significant one. During the referendum campaign, UK farmers reportedly received assurances from Leave campaigners that the subsidies they now receive from the EU would be continued after Brexit. This is no small matter, as EU direct payments make up 54% of British farmers’ income (*Economist* 2016). One issue may arise, however, with the nature of the payments.

Under WTO rules it is not possible for the UK to provide trade-distorting subsidies to its farmers unless the UK has an agreement that permits it. Today, such payments are possible due to a deal that the EU struck with its WTO partners when the UK was part of the EU. After leaving, the UK would either have to abandon the policy, or negotiate new exceptions with the other 162 WTO members. As some of the other members are vehemently opposed to such payments, negotiating such a waiver could be difficult.

Additionally, continued access to the EU market for farm products is important since the EU buys over 60% of the UK's agricultural exports. Even under the Norway option, this access is not assured since agriculture was excluded from the European Economic Area agreements (at the request of Norway, *inter alia*, when the deal was being crafted in the 1990s).

Collaboration in academic research between the UK and the EU is very strong, with 17% of the research funding for UK universities coming from the EU. As Paul Nightingale points out in his chapter, Brexit creates uncertainty about future UK participation in European research programmes.

Regional policy also poses difficult political problems for the sitting UK government. Disadvantaged regions in the UK received about €1.8 billion in 2015 as part of a multi-year plan that goes up to 2020. After Brexit, this money will have to come directly from the UK Treasury. Of course, the UK contributions to the EU will fall after Brexit, possibly to zero, but it is not at all clear that the regions receiving money today under EU rules and priorities would be equally favoured under UK rules and priorities.

This brings us to the difficult issue of the EU budget. The British government agreed in 2013 to a Multiannual Financial Framework that lasts from 2014 to 2020. Since the UK is one of the larger EU members, it is a significant contributor and recipient. Withdrawing on, say, 1 January 2019 would create havoc with the EU budgetary process. This will surely be one of the trickiest issues to be settled during the Brexit 'divorce' bargaining. Most likely, it will be left as part of the endgame. One possible outcome would be that, as a final gesture, the UK agrees to follow the Multiannual Financial Framework on both the spending and receipts side up to 2020.

Political implications for the UK and EU

As Ian Wooton points out in his chapter, while 51.9% of UK voters chose ‘Leave’, 62% of Scottish voters chose ‘Remain’. This means that finding an outcome that simultaneously respects the collective wishes of the British people, while addressing the concerns of the citizens in Scotland, will be difficult. Failure to do so is likely to threaten the integrity of the UK itself. From this perspective, Wooton argues that the best outcome would be the Norway option, as any other form of trading relationship with Europe would be economically costly and create political problems that could fuel secessionist tendencies.

Scotland’s chief political leader has promised to explore all the ways of keeping Scotland inside the EU – including, most notably, a second referendum on Scottish independence. Given the strength of support that both independence from the UK and adherence to the EU enjoy in Scotland, Brexit may lead to the exit of Scotland from the United Kingdom. Indeed, many opinion polls since the Brexit vote show the independence side has the upper hand for now.

The issues in Northern Ireland are, if anything, even thornier. As Ireland is staying in the EU, Brexit would, under normal procedures, lead to the introduction of border controls between the island’s southern and northern countries. As Patrick Honohan, former governor of the Irish central bank, and his co-author John FitzGerald write: “There is universal reluctance to see the reintroduction of physical border controls on the island of Ireland. Their absence is an important symbol of the success of the peace process encapsulated in the Good Friday Agreement of 1998.” The authors are hopeful, however, that modern surveillance technology could control immigration and goods-smuggling without dividing the island with physical border controls.

Brexit is not just a problem for Britain, it throws up many challenges for the EU as well. Charles Wyplosz suggests that Brexit would be an opportunity for the EU to re-evaluate the degree of centralisation that has been reached so far. He argues for a simultaneous bidirectional change of authority implemented in such a way such that each country gives a little and takes a little in order to arrive at a package that is both politically acceptable and economically efficient.

The problem is that this sort of root-and-branch rethinking was tried ten years ago at the European Convention. The result – the Constitutional Treaty – was rejected by several members, some via referendums. Another long negotiation was undertaken to produce the ‘Reform Treaty’, which eventually morphed into the Lisbon Treaty. This barely passed and the whole process took almost a decade. It is hard to see how putting together a new package in today’s strained political climate would be any easier, or faster.

Thorsten Beck also argues in his chapter that the EU needs to reform, and should take Brexit as a spark, but he views it as an opportunity mostly to advance the deeper integration among the Eurozone nations that is necessary to fix the aspects of the monetary union that are still deficient.

Concluding remarks

The future is an unknowable place, as the old saying goes. No can anticipate where the Brexit vote will take the UK and the EU. The alternative that seems most sensible from an economic perspective is the Norway option. It may well be that the UK government could make this palatable, despite the free movement of people, by bundling it together with a very thorough set of policies to help the UK citizens who have been left behind by globalisation, technological advances, and European integration. Maybe we could call it the ‘EEA plus anti-exclusion option’ (EEA+AE).

If this came to pass, the main economic policy outcome of the Brexit vote would be simple. The UK would end up with more influence over its trade, agricultural, and regional policies, but less influence over the rules and regulation governing its industrial and service sectors. Brexit, in other words, would end up as a ‘sovereignty own-goal’ on economic policy. It is also possible that even the Norway option would lead to the break-up of the United Kingdom. Scottish political leaders may exploit the opportunity to achieve their long-time goal of independence. In short, even the best outcome is likely to be problematic.

Is there any way back from Brexit? Watching UK politics over the last month should make everyone hesitate before proclaiming what is and is not possible politically.

Things that seem obvious today may sound crazy in two years, and vice versa. For example, it is not impossible that over the coming years, the old capital-versus-labour alignment switches to more of a globalist-versus-nativist schism that affects both major parties. But leaving aside the politics, would it be a good idea to revisit the Brexit vote?

The key flaw in the June 2016 vote from a public policy perspective was that it allowed people to say what they were against without forcing them to say what they were for. When Norwegian voters rejected EU membership in 1994, they knew that the alternative was the EEA (now known as the Norway option). Why shouldn't UK voters decide whether EU membership is better or worse than whatever the government is able to negotiate over the next two years?

Indeed, once the realities of the best alternative to membership firmly displaces the wishful thinking that currently surrounds much Brexit analysis, the sitting UK government may decide that it should present the UK voters with a slightly more sophisticated multiple choice question – one that would allow them to choose between EU membership and territorial integrity of the UK, on one hand, and the best alternative arrangement available to the UK on the other. This might seem wise if the alternative were going down in history as the prime minister who broke apart a union that has been in place since 1707. The other EU members would have to play along with this, but it might suit them as a means of dampening the anti-EU parties in their own nations.

Making the best of it

But all this is speculation that may be relevant years down the road (or not). In the meantime, Brexit means Brexit. I believe it is important for economists to help the UK government respond to the many challenges that the Brexit vote has raised and to work towards achieving the best possible alternative to EU membership.

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He did his PhD in economics at MIT with Paul Krugman and has published a half dozen articles with him. Before that he earned an MSc at LSE (1980-81), and a BA at UW-Madison (1976-1980). The author of numerous books and articles, his research interests include international trade, WTO, globalisation, regionalism, global value chains, and European integration.

Brexit: The vote and the voters

1 Brexit and globalisation

Diane Coyle

University of Manchester and Enlightenment Economics

The UK's 'Leave' vote could be seen as a vote against globalisation and its uneven impact on different parts of the country, rather than a vote specifically against the EU. The proportions voting for Leave were higher in the Midlands and North of England, where deindustrialisation struck hardest and where average incomes have stagnated. London, the UK's only truly global city, saw growth and a high share of Remain voters. This chapter argues that the new Conservative administration, swept in by the Brexit vote, should reinforce the very recent policy emphasis on economic growth outside global London and its hinterland.

Globalisation, far from making the world flat, has thrown into sharper relief economic inequalities. It has made the geography of economic activity more rather than less salient.

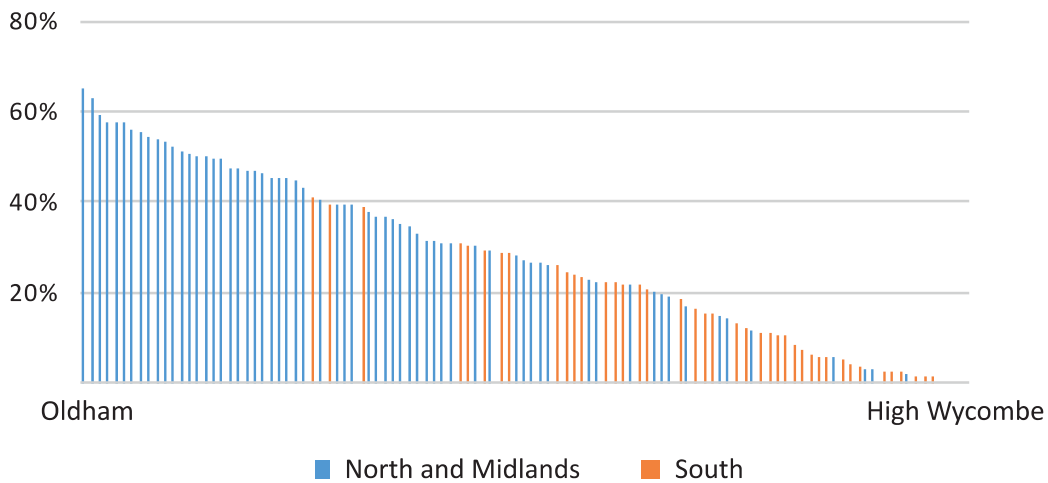
There is a good case for arguing that the UK's 'Leave' vote was a vote against globalisation rather than a vote specifically against the EU. The campaign slogan, "Let's take back control", seems to have been particularly resonant for many voters. It speaks to the frustration of the millions of Britons (and indeed citizens of other OECD countries) at their lack of agency when it comes to their standard of living and life prospects.

A majority of households in these countries have seen no real income growth since at least 2005, with young and less well-educated people having no hope of being better off than their parents (Dobbs et al. 2016). In his recent work, Branko Milanovic has pointed out the absence of gain for the lower half of the income distribution in 'old rich' countries since 1988 (Milanovic 2016). At the same time, labour market conditions have deteriorated in various ways, manifested as high youth unemployment, zero-hour contracts, or the growth of the contingent 'gig' economy.

Populist revolts in OECD nations

The present ‘populist revolt’ around the OECD therefore has long roots. The UK has been deindustrialising since around 1970, a phenomenon accelerated by the recessions of the early 1980s and early 1990s. Many millions of manufacturing workers lost well-paid and secure jobs, and never regained similar job market status. As many of the affected industries were geographically concentrated in the Midlands and North of England, the impact was both concentrated in space and sustained through the next generation, and the next, as those communities went into a downward spiral. The 28 towns and cities with the largest percentage of deprived areas were in the north or midlands of England (ONS 2016).

Figure 1 Proportion of local areas in the most deprived 20% nationally for towns and cities in England by region



The digital revolution has exacerbated these economic and spatial divisions. The new technologies have a strong skill bias, so people with higher academic qualifications have enjoyed a rising demand for labour and growth in real incomes. The complementarity between digital and face-to-face communication has increased the agglomeration economies big cities have always enjoyed. The global cities – only London in the UK – have been doing particularly well in terms of growth. Despite paying a price for economic growth in the form of housing shortages and crowded roads, people in the

largest urban centres have been thriving. Here, a majority voted Remain. In smaller cities, satellite towns and rural areas, a majority voted Leave.

Immigration's role

The role of immigration, the *bête noire* of some Brexit campaigners, in the referendum outcome is less clear. There was a negative correlation between the stock of immigrants in a given area and the proportion of its population who voted Leave, but a positive correlation between the recent increase in the number of immigrants and the Leave share (Clarke and Whittaker 2016). In the UK context, the evidence suggests immigration has had some adverse labour market impacts on low-skilled workers, particularly in the post-2008 downturn and particularly on earlier immigrants, although the average effects on wages and employment levels are small (Ruhs and Vargas-Silva 2015).

The distributional consequences of globalisation, driven by the new technologies and manifested in flows of goods and services, capital and people, have long been foreseen (Coyle 1997). Unfortunately, it has taken a generation for any policy response to get under way. It is clear that all the attempts around the OECD to respond to the deindustrialisation under way since the 1980s, and its consequences for particular groups of people and communities, simply failed.

For the UK there is a chronic absence of data at a sufficiently fine-grained geographic scale to build the necessary evidence base for policy interventions, and this is just beginning to be addressed since Sir Charles Bean's review of economic statistics (Bean 2015, 2016). Given the potential damaging impact of the Brexit vote on trade, it will also be important to understand the supply chain links serving British exporters, which are likely to be geographically concentrated. Again, we lack the UK data to do so until the statistical reforms are implemented.

The need for worker training

However, policies for the Brexit voters do not need to wait for this, and must not. Given the skill bias of technological change, ensuring everybody has appropriate skills to work with machines and not be made redundant by them is a priority everywhere.

The city devolution agenda in the UK, introduced by the 2010-2015 coalition government, has begun to respond to the economy's extraordinary geographical economic imbalance. It has to go much further in giving local authorities the decision-making and financial power to address local needs. There is a need to redistribute public spending to the affected geographies by providing them with more and better public services (especially education and health), transport links to urban centres, and infrastructure and natural capital in general. UK public expenditure overwhelmingly tilts in favour of London and the south east. Recent public expenditure cuts have hit hardest the poorest areas of the north of England, south west and Wales, so policy has gone backwards in this regard since 2010.

Concluding remarks

The now-sacked (and pro-Remain) Chancellor of the Exchequer, George Osborne, drove the very recent policy emphasis on economic growth outside global London and its hinterland. It would be bitter medicine if the new Conservative administration, swept in by the Brexit vote, were to abandon the only policy agenda in two generations to start to take seriously the economic stagnation of Britain's Brexit regions.

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She was previously Vice Chair of the BBC Trust, a member of the Migration Advisory Committee, a member of the independent Higher Education Funding Review panel, and of the Competition Commission. She has a PhD from Harvard. From 1993-2001 she was a writer and then Economics Editor of *The Independent*, and had earlier worked at the UK Treasury and in the private sector as an economist. Diane was awarded the OBE in January 2009.

2 Brexit realism: What economists know about costs and voter motives

David Miles

Imperial College Business School and CEPR

To some, the Brexit referendum was a failure by economists to persuade UK voters that leaving the EU would entail major economic costs. This chapter argues for a more nuanced view by making two points. First, it questions whether there really is a consensus about the costs. While all the mainstream estimates were negative, they ranged from rather small to nearly 10% – a range that hardly sounds like a consensus. Moreover, the key mechanism – Brexit’s impact on productivity growth – is not something economists really understand. Second, a rational voter could accept the cost as a tolerable price for having greater independence from EU decisions. Economics does not tell us that a voter who makes such a choice is ignorant, irrational, or economically illiterate.

There is some angst in the economics community about a perceived failure to persuade UK voters of what some see as the overwhelming consensus that Brexit would bring major economic costs. In a thoughtful letter to *The Times* (28 June 2016), Paul Johnson, Director of the Institute for Fiscal Studies (IFS), said: “...it is clear that economists’ warnings were not understood or believed by many. So we economists need to be asking ourselves why that was the case, why our near-unanimity did not cut through.”

The latest survey of academic economist's views conducted by the Centre for Macroeconomics in the wake of the Brexit referendum, asks:

- “Do you agree that the economics profession needs an institutional change that promotes the ability to communicate more effectively with policymakers and the public at large and to make clear when economists have a united view; and
- “Do you agree that we need to introduce leadership to help achieve this improvement through coordinated efforts?”

Was there a consensus?

But is there really a consensus about the costs of the UK leaving the EU? Even if there is some sort of consensus around central estimates, is there an agreement about how uncertain such estimates are and how large that uncertainty is? Is it so clear that, even if there was a united view from economists, it was ignored?

The IFS Report, *Brexit and the UK's Public Finances*, published on the eve of the referendum, provided a comprehensive summary of estimates of the long-run impact on GDP of Brexit (Emmerson et al. 2016). Table 3.1 of that report (reproduced below as Table 1) shows estimates of the impact on 2030 GDP, ranging from a cost of a few percentage points to up to nearly 10%. There is a consensus here only in the sense that nearly all estimates are for a negative impact. But the differences in estimates are so large that it is surely a stretch to see this as a ‘united view’.

We don't understand the key economic determinant – productivity growth

One factor here is that the mechanisms that could create a long-run hit to GDP are not very well understood. A critical factor – indeed almost certainly *the* critical factor – is how productivity will change as a result of the UK being outside the EU. One element of that link is that between Brexit and FDI, and then between FDI and productivity – neither of which is at all easy to predict.

Table 1 IFS summary of Brexit impact studies

Organisation	Scenario	Estimate (% GDP)	Range	Impacts modelled
CEP (Dhingra et al. 2016)	Dynamic EEA/FTA	-7.9	(-6.3 to -9.5)	Budget, trade, productivity
	Static EEA	-1.3	N/A	Trade only
	Static WTO	-2.6	N/A	Trade only
HM Treasury	EEA	-3.8	(-3.4 to -4.3)	Budget, trade, FDI, productivity
	FTA	-6.2	(-4.6 to -7.8)	
	WTO	-7.5	(-5.4 to -9.5)	
OECD	WTO/ FTA	-5.1	(-2.7 to -7.7)	Budget, trade, FDI, productivity, migration, regulation
NIER	EEA	-1.8	(-1.5 to -2.1)	Budget, trade, FDI
	FTA	-2.1	(-1.9 to -2.3)	
	WTO	-3.2	(-2.7 to -3.7)	
	WTO+	-7.8	N/A	Adds productivity
PwC/CBI	FTA	-1.2	N/A	Budget, trade, FDI, regulation
	WTO	-3.5		
Oxford Economics	FTA ^a	-2.0	(-0.1 to -3.9)	Budget, trade, FDI, migration, regulation
Open Europe	FTA	-0.8 to +0.6	(-2.2 to 1.6)	Budget, trade, migration, regulation
Economists for Brexit	WTO	+4.0	N/A	Budget, trade ^b

Notes: a: FTA with moderate policy scenario used as central estimate; range includes 'liberal customs union' (-0.1) to 'populist MFN scenario' (-3.9); b: regulation impacts assessed separately. Estimates are for impact on GDP in 2030.

Source: Emmerson et al. (2016).

More generally, economists' understanding of what has driven UK labour productivity in recent years is very low. In the period since the financial crash of 2007-2008, labour productivity in the UK has reached a level that is probably around 15% or more below that which seemed likely on the eve of the financial disruption. The Bank of England has applied thousands of economist-hours to trying to account for this fall. It still remains largely a mystery why productivity has been so poor eight years after the crash and when many other economic indicators (e.g. unemployment, stresses in bank funding and credit availability) have returned to something that looks normal.

The single biggest determinant of the long-run costs of Brexit – its impact on productivity – is something which the post-financial crash evolution of UK output per head should make us very unconfident about predicting.

Trade-linked impacts are easier to estimate

The purely trade-related aspect of a hit to GDP from Brexit may be more reliably estimated. And the economic mechanism at work here is more intuitive: if less trade means less specialisation, then a country ends up devoting more resources to areas where it does not have comparative advantage. There is a good deal of empirical evidence that openness is linked to productivity. And some of that evidence is very stark – look at North Korea and South Korea. It is indeed overwhelmingly likely that a retreat to become a much less open economy would be very bad for incomes. But the relevance of that observation to how a UK outside the EU will fare is very far from clear.

In any case, the trade-only effects of Brexit (i.e. setting to one side the potential knock on effects on productivity growth over time) are often estimated to be rather small. A Centre for Economic Performance study puts the trade effects on 2030 GDP at between 1.3% and 2.6% of GDP (Dhingra et al. 2016). No one should think that 1-3% of GDP is trivial. But that number should be seen in context – UK GDP is now nearly 20% lower than a continuation of the trend the economy seemed to be on before the financial crisis of 2008.

Do we know voters ignore economic estimates?

But suppose we put to one side the rather wide range of central estimates of the long-run effect of Brexit on GDP, and also ignore the enormous uncertainty about any one such central estimate, and stick to the view that there was a consensus amongst economists about the effects and that this was that Brexit is significantly bad for incomes. What is the evidence that such a consensus (to the extent that it existed) was ignored by those that voted to Leave? I think we should be realistic as economists about how little we really know here.

One point is obvious. A rational voter could accept that there would be an economic cost to leaving the EU but think this is an acceptable price to pay for not having to accept some EU decisions over which the UK has limited say. There clearly are decisions of this sort – from judgements by the European Court of Justice, to rules on financial regulations (e.g. the strange decision to make capital requirements on banks maximum harmonisation, or EU rules on bonuses), to accepting the right of entry of people to whom other EU countries have decided to grant citizenship.

Economics has little to say about whether someone who values avoiding being tied by such decisions, and accepts in return the likelihood of a lower income by a few percentage points, is ignorant, irrational, or economically illiterate. For many years the mantra of many from the European Commission has been the desirability, even the necessity, of “ever closer union”. What does economics tell you is the right answer to the question, “How much should I pay to avoid that?”

As it happens, I did not think it worth paying the price to avoid the risk that the fuzzy concept of “an ever closer union” could create damage down the road. I do not, however, believe those who took a different view were ignorant or befuddled. It is not right to think that if only they understood the economics of it they would surely have voted differently.

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3 Lousy experts: Looking back at the ex ante estimates of the costs of Brexit

Nauro F. Campos

Brunel University and CEPR

One month ago, 52% of British voters decided the UK should leave the European Union, in a decision that went against the advice of most economists. This chapter assesses the quality of that advice, and argues that while gaps in knowledge may have hindered forecasts, Brexit can essentially be put down to three things: an unnecessary manifesto pledge by David Cameron, a lack of engagement by the City in the Remain campaign, and the pro-Brexit stance of some of the UK's major newspapers.

On 23 June 2016, 52% of British voters decided that being the first country ever to leave the EU was a price worth paying for “taking back control”, despite advice from economists clearly showing that Brexit would make the UK “permanently poorer” (HM Treasury 2016).

The extent of agreement among economists on the costs of Brexit was extraordinary: forecast after forecast supported similar conclusions (which have so far proved accurate in the aftermath of the Brexit vote). Yet the publication of each one of these estimates was followed instantaneously by acerbic criticism which culminated, days before the vote, with the claim that economic experts warning about leaving the EU were like the Nazis who denounced Einstein in the 1930s (Cowburn 2016). Institutions were not immune, with the Treasury, Bank of England, IMF, OECD, and IFS receiving similar treatment. What went wrong? Were economists not ready? Were our forecasts technically poor? Were economic studies fundamentally incomplete and thus flawed? Are we to blame? This column addresses these questions.

How come Brexit?

In the years to come, there will undoubtedly be many PhD dissertations dissecting Brexit. Economists have been blamed for it, but I don't think we even make the top three culprits. The three main culprits for Brexit, in my opinion, are political elites, economic elites, and the media. These are the three Cs – Cameron, the City, and coverage – with a number linked to each: 11, 17.5, and 41.

Former prime minister David Cameron's referendum pledge was a reaction to UKIP's performance in the 2014 European Parliament election. Voter dissatisfaction with the economic policies implemented by the coalition government since 2010 meant severe losses for the two coalition parties. The Conservatives lost seven seats (of 26), while the Liberal Democrats lost 10 (of 11). UKIP gained 11 seats to become the largest UK party.

Economic elites were complacent because they thought common sense would deliver a win for 'Remain'. Those with more at stake, like the City, did not feel the urge to back up the Remain campaign. Hence, the final fundraising total for 'Leave' was bigger than that for Remain by about £3.3 million: £17.5 against £14.2 million (Electoral Commission 2016). Coincidentally, 17.5m was also the number of pro-Brexit votes.

My third main reason is media coverage. Levy et al. (2016) use a sample of 1,558 articles across nine major UK newspapers to show that 41% were in favour of Brexit, while only 27% were pro-Remain. These are absolute numbers, not weighted by circulation. The authors call the remaining 30% "mixed, undecided or no position".

It is absurd to blame Brexit on economists, especially in light of the three reasons above. Yet economists may have not been fully prepared. The breadth of our knowledge was inadequate. Some examples: two years ago, we were still struggling with the fragility (i.e. lack of robustness) of our estimates of the benefits of EU membership;¹ two years

¹ Crafts (2016) and Campos et al. (2014) review this literature. Campos et al. argue that the body of evidence is large and convincing for the Single Market and the euro, but "disappointingly thin" for EU membership. They note that the vast majority of available estimates are deemed "not robust" by their authors, who point to country heterogeneity as the main possible reason. Campos et al. try to address country heterogeneity concerns by estimating the benefits from EU membership on a comparable country-by-country basis using synthetic counterfactuals.

ago, we did not have answers to key questions such as how much EU membership increase FDI flows into the UK;² and, to this day, we have not yet seen time-series data on how the UK financial sector grew after 1973.³

Such gaps are important because the estimates of the costs of leaving the EU are a function of the estimates of the benefits from EU membership adjusted by the size (and time profile) of the entry/exit shock. The latter can be thought of as a turning point, a structural break (Campos and Coricelli 2015), or also as varying across countries with some more capable than others of absorbing the benefits of integration.

The bottom line is that economists cannot be listed among the main Brexit culprits. Yet gaps in knowledge may well have hindered the quality of our advice. Did this happen? In other words, how good were the ex ante estimates of the costs of Brexit?

Looking back at the ex ante estimates of the costs of Brexit

Between the outright victory of the Conservative party in May 2015 and the Brexit vote, there was a stream of medium- and long-term forecasts. We can identify three types of estimates.

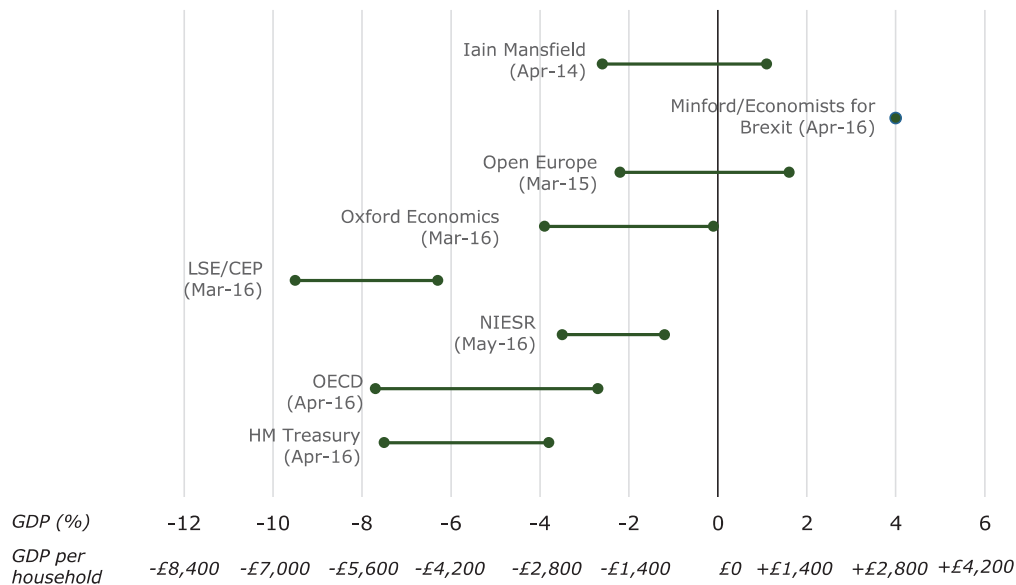
- Type 1 is the one showing gains: Economists for Brexit (2016) predict that Brexit will increase UK incomes by about 4% by 2030 (see Dhingra et al 2016b for a thorough assessment).
- Type 2 are older (pre-May 2015), mostly done by pro-Leave think tanks and often reporting a zero effect.

2 Bruno et al. (2016) make this point. They find that EU membership increase FDI inflows by an average of 28%, with the estimate for the UK being significantly above average.

3 Another key gap is the role of media. Wren-Lewis (2016) has been one of the few drawing attention to this issue. O'Rourke (2016) noted that, "[t]he question, then, is why the Irish haven't developed UK levels of animosity toward EU immigrants... Surely, the British media bear considerable responsibility for the difference. Ireland has nothing like the mendacious, jingoistic gutter press that thrives in the UK". Despite a substantial body of economic work in this area (Prat 2015), there remains a worrisome lack of research on the UK.

- Type 3 includes the vast majority of estimates, which show significant medium- and long-term losses from Brexit. To be specific, the Treasury (2016), CEP/LSE (Dhingra et al 2016a), the OECD (2016), and the NIESR (Ebell and Warren 2016) predict short-term income losses of about 3.8%, 2.6%, 3.3% and 2.3%, respectively, and long-term losses of about 6.2%, 7.5%, 5.1% and 7.8%, respectively.⁴

Figure 1 Recent estimates of the long-term impact of leaving the EU on UK GDP



Source: Chadha (2016).

These are central estimates. Type 3 studies often presented three scenarios: the EEA/Norway model, the Swiss model, and WTO rules.⁵ Although losses from the EEA option are the smallest in per capita GDP terms, there is evidence of productivity losses of 6-9% for Norway vis-à-vis EU membership (Campos et al. 2015). Note that the heated UK ‘productivity puzzle’ debate is over a similar productivity loss of 6% to 9% (Yueh 2015).

4 See Armstrong and Portes (2016) and Begg and Mushövel (2016) for overviews of these estimates. It is worth mentioning that estimates are deliberately conservative (for instance, none allowed for the possibility of EU reforms). This is because the choice of underlying assumptions more often than not was driven by the ‘urge for balance’ as well as a response to incomprehensible personal attacks.

5 In the Treasury report, the smallest losses are for the EEA option: it yields a 3.8% GDP loss by 2030; The Swiss is the intermediary case and amounts to a reduction of 6.2%, while the WTO option is estimated at a 7.5% loss.

How can we differentiate between these types of estimates? I argue they differ in at least two fundamental ways: in methodological transparency, and in the quality of the assumptions. On the first count, it is abundantly clear that Type 3 studies are superior to the others. They all provide extensive details that make their estimates entirely replicable. The same can simply not be said of Types 1 and 2.⁶

The three groups also vary significantly regarding their underlying assumptions. An illustrative example refers to EU regulation costs, which are closely associated with the sovereignty debate. Types 2 and 3 correctly assumes these to be small. Type 1 assumes costs of regulation that are about 6% of GDP, which is large and unsupported by international evidence. Clearly, the larger the costs assigned to EU regulation, the better the Brexit option looks.

There is something insidious about reports arguing that the long-run effect is small or zero. They not only cloud the debate, but present Brexit (and, by extension, UK membership of the EU) as immaterial, irrelevant, or even inconsequential.

Brexit may mean Brexit, but what will “success” mean?

If one silver lining is needed, the referendum focused our minds and pushed us to generate a lot of knowledge that we didn't have before. Almost without exception, the plethora of studies produced in the wake of Brexit will be useful for understanding, reforming, and hopefully improving the EU. A month on, the Type 3 forecasts are sadly proving accurate. We need to wait until 2030 to assess the long-run estimates, but one thing is clear: being 'out' turns those still 'in' into natural comparators or counterfactuals. In 2030, there will be less need for sophisticated counterfactual estimation because just analysing the economic performance of Germany, France, the Netherlands, Poland and the other EU members after 23 June 2016, may well be instructive enough.

⁶ In Campos (2014), I show how much inadequate assumptions and lack of methodological rigor affect the estimates reported by one of the first Brexit studies.

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4 This backlash has been a long time coming

Kevin H. O'Rourke

University of Oxford and CEPR

After the Brexit vote, it is obvious to many that globalisation in general, and European integration in particular, can leave people behind – and that ignoring this for long enough can have severe political consequences. This chapter argues that this fact has long been obvious. As the historical record demonstrates plainly and repeatedly, too much market and too little state invites a backlash. Markets and states are political complements, not substitutes.

It has recently become commonplace to argue that globalisation can leave people behind, and that this can have severe political consequences. Since 23 June, this has even become conventional wisdom. While I welcome this belated acceptance of the blindingly obvious, I can't but help feeling a little frustrated, since this has been self-evident for many years now. What we are seeing, in part, is what happens to conventional wisdom when, all of a sudden, it finds that it can no longer dismiss as irrelevant something that had been staring it in the face for a long time.

The main point of my 1999 book with Jeff Williamson was that globalisation produces both winners and losers, and that this can lead to an anti-globalisation backlash (O'Rourke and Williamson 1999). We argued this based on late-19th century evidence. Then, the main losers from trade were European landowners, who found themselves competing with an elastic supply of cheap New World land. The result was that in Germany and France, Italy and Sweden, the move towards ever-freer trade that had been ongoing for several years was halted, and replaced by a shift towards protection that benefited not only agricultural interests, but industrial ones as well. Meanwhile, across the Atlantic, immigration restrictions were gradually tightened, as workers

found themselves competing with European migrants coming from ever-poorer source countries.

While Jeff and I were firmly focused on economic history, we were writing with half an eye on the ‘trade and wages’ debate that was raging during the 1990s. There was an obvious potential parallel between 19th-century European landowners, newly exposed to competition with elastic supplies of New World land, and late 20th-century OECD unskilled workers, newly exposed to competition with elastic supplies of Asian, and especially Chinese, labour. In our concluding chapter, we wrote that:

“A focus of this book has been the political implications of globalization, and the lessons are sobering. Politicians, journalists, and market analysts have a tendency to extrapolate the immediate past into the indefinite future, and such thinking suggests that the world is irreversibly headed toward ever greater levels of economic integration. The historical record suggests the contrary... unless politicians worry about who gains and who loses, they may be forced by the electorate to stop efforts to strengthen global economy links, and perhaps even to dismantle them... The globalization experience of the Atlantic economy prior to the Great War speaks directly and eloquently to globalization debates today. Economists who base their views of globalization, convergence, inequality, and policy solely on the years since 1970 are making a great mistake. We hope that this book will help them to avoid that mistake— or remedy it.”

This time it is not different

You may argue that the economic history of a century ago is irrelevant – after all, this time is different. But ever since the beginning of the present century, at the very latest, it has been obvious that the politics of globalisation today bears a family resemblance to that of 100 years ago.

- It was as long ago as 2001 that Kenneth Scheve and Matthew Slaughter published an article finding that Heckscher-Ohlin logic did a pretty good job of explaining American attitudes towards trade – lower-skilled workers were more protectionist (Scheve and Slaughter 2001: 267).

Later work extended this finding to the rest of the world.

- If the high skilled were more favourably inclined towards free trade in all countries, this would not be consistent with Heckscher-Ohlin theory, but that is not what the opinion survey evidence suggested – the Scheve-Slaughter finding held in rich countries, but not in poor ones (O'Rourke and Sinnott 2001: 157, Mayda and Rodrik 2005: 1393).

You may further argue that such political science evidence is irrelevant, or at least that conventional wisdom could be forgiven for ignoring it. But by the first decade of the 21st century, again at the very latest, it was clear that these forces could have tangible political effects.

- In 2005, a French referendum rejected the so-called 'Constitutional Treaty' by a convincing margin.

While the treaty itself was a technical document largely having to do with decision-making procedures inside the EU, the referendum campaign ended up becoming, to a very large extent, a debate about globalisation in its local, European manifestation.

Opponents of the treaty pointed to the outsourcing of jobs to cheap labour competitors in Eastern Europe, and to the famous Polish plumber. Predictably enough, professionals voted overwhelmingly in favour of the treaty, while blue-collar workers, clerical workers and farmers rejected it. The net result was a clear rejection of the treaty.

Lessons not learned

Shamefully, the response was to repackage the treaty, give it a new name, and push it through regardless – a shabby manoeuvre that has done much to fuel Euroscepticism in France. There was of course no referendum on the Lisbon Treaty in that country, but there was in Ireland in 2008. Once again, a clear class divide opened up, with rich areas overwhelmingly supporting Lisbon, and poor areas overwhelmingly rejecting it. Survey evidence commissioned afterwards by the Irish government suggested that what canvassers on the doorsteps had found was indeed the case – hostility towards

immigration in the poorer parts of Dublin was an important factor explaining the ‘No’ vote there (O’Rourke 2008, Sinnott et al. 2010).

For a long time, conventional wisdom ignored these rather large straws in the wind – after all, the Irish could always be asked to vote again, while the French could always be told that they couldn’t vote again. And so the show could go on. But now Brexit is happening, and the obvious cannot be ignored any longer.

Recent work suggests that exposure to Chinese import competition was a common factor in many British regions that voted to leave the EU (Colantone and Stanig 2016). If this finding survives the scholarly scrutiny that it deserves, it will hardly come as a surprise. But it is nevertheless crucial, since these are precisely the kinds of regions that are voting for the National Front in France. And unlike Britain, France is absolutely central to the European project.

What can be done? Great openness requires greater governments

This is where Dani Rodrik’s finding that more open states had bigger governments in the late 20th century comes in (Rodrik 1998). Dani – who was long ago asking whether globalisation had gone too far (Rodrik 1997) – argues that markets expose workers to risk, and that government expenditure of various sorts can help protect them from those risks.

In a series of articles (e.g. Huberman and Meissner 2009) and a book (Huberman 2012), Michael Huberman showed that this correlation between states and markets was present before 1914 as well. Countries with more liberal trade policies tended to have more advanced social protections of various sorts, and this helped maintain political support for openness.

Anti-immigration sentiment was clearly crucial in delivering an anti-EU vote in England. And if you talk to ordinary people, it seems clear that competition for scarce public housing and other public services was one important factor behind this. But if the problem was a lack of services per capita, then there were two possible solutions:

- Reduce the number of 'capitas' by restricting immigration; or
- Increase the supply of services.

It is astonishing in retrospect how few people argued strongly for more services rather than fewer people.

Concluding remarks and possible solutions

If the Tories had really wanted to maintain support for the EU, investment in public services and public housing would have been the way to do it. If these had been elastically supplied, that would have muted the impression that there was a zero-sum competition between natives and immigrants. It wouldn't have satisfied the xenophobes, but not all anti-immigrant voters are xenophobes. But of course the Tories were never going to do that, at least not with George Osborne at the helm.

If the English want continued Single Market access, they will have to swallow continued labour mobility. There are complementary domestic policies that could help in making that politically feasible. We will have to wait and see what the English decide. But there are also lessons for the 27 remaining EU states (28 if, as I hope, Scotland remains a member). Too much market and too little state invites a backlash. Take the politics into account, and it becomes clear (as Dani Rodrik has often argued) that markets and states are complements, not substitutes.

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Trade policy and the City

5 The UK's new trade priorities

Angus Armstrong

NIESR

There are three trade policy challenges facing the UK outside the EU: it must negotiate a new relationship with the EU, disentangle itself from WTO Agreements it entered into as an EU member, and restore preferential trade with the many dozens trade partners that are now covered by EU trade agreements. As difficult trade-offs are inevitable in all of these, politicians should soon to decide how the preferences of UK citizens might best map onto these alternative arrangements. The optimal solution is to combine future trade arrangements with domestic policy that compensate UK citizens who face the costs of trade agreements.

One reason for the UK leaving the EU was the promise of “taking back control” of trade policy. The UK would give up its influence and vote on EU policies for the freedom to negotiate its own trade agreements with countries around the rest of the world.

It is more than four decades since the UK last was in charge of trade negotiations. Back then, exports were mostly domestic manufactured goods, where a pound of exports meant a pound of local profits and wages. Today, the UK is at the forefront of complex global value chains where services generate more than half of its domestic profits and wages from trade. This matters when negotiating the best type of trade arrangements. Trade policy is no longer just about reducing tariffs and subsidies to unprofitable industries; it is common standards and regulation, property rights and investment protection, infrastructure and communications, and the free movement of ideas and human capital. This chapter looks at the priorities for UK trade negotiations in light of the decision to leave the EU.

Three tasks ahead

The tasks facing the UK can be considered in three parts (not necessarily in order).

- First, on leaving the EU the UK must renegotiate its WTO membership agreement.

There is no precedent for this particular process, and the UK will need to agree its terms of engagement outside of the EU with the other 160 member states (i.e. establish ‘most favoured nation’ terms). The list of policy areas to consider goes well beyond tariffs. The most expedient approach may be to transpose, where appropriate, most of the existing commitments under its EU membership to avoid a lengthy negotiation.

- Second, the UK has to enter into a new governance arrangement with the EU.

The government has indicated that it will submit its notice to withdraw from the EU under Article 50 of the Treaty early next year. This will start a two-year negotiation period by the end of which the UK will not be a member of the EU, unless an extension to the timetable is granted by unanimous agreement. The new arrangement will go far beyond trade. It is likely to be negotiated in parallel to the Article 50 process. But the complexity and need for unanimous agreement, and even ratification in some national assemblies, suggest an interim arrangement may be required.

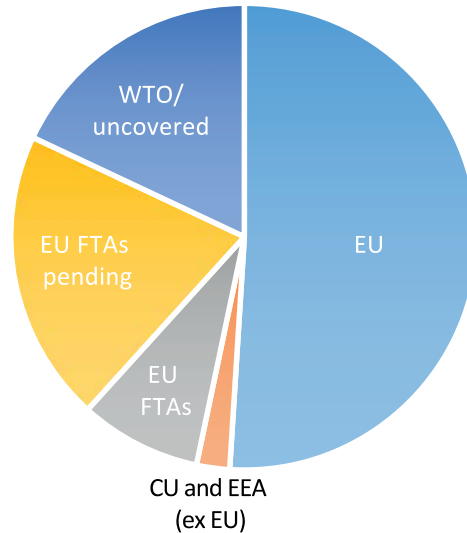
- Third, the UK has the opportunity to strike new trade agreements beyond EU.

The EU has 53 preferential trade agreements – mostly with developing states – that will no longer cover the UK after withdrawal. The UK would also need to consider if, and how, to be included in the US-EU Transatlantic Trade and Investment Partnership (TTIP) and other free trade agreements (FTAs) under negotiation. The UK can seek to join regional trade agreements such as the Trans-Pacific Partnership, and enter into other negotiations such as the Trade in Services Agreement (TiSA). Whether the UK has more success or less influence outside the EU remains to be seen.

Figure 1 puts these tasks into perspective. Just over half of UK trade is with the EU. If we add the other countries in the European Economic Area (EEA) and the Customs Union, the share of trade reaches 53%. Including those countries that have existing PTAs with the EU covers 62% of UK trade. Finally, including countries which are

currently negotiating PTAs with the EU covers 82% of total UK trade. Most of the remaining 18% of UK trade is mostly covered by the rules of the WTO.¹

Figure 1 Share of total UK trade covered by trade agreements



Source: ONS and EC DG Trade.

EU priorities

The UK's first priority is likely to be with its largest potential trade partner. One of the most pervasive results in applied trade studies is that distance matters to the amount of trade. Head and Meyer (2014) report a distance elasticity of -0.93, which suggests that a doubling of distance from the UK almost halves the amount of trade. Perhaps surprisingly, the rise in global value chains has made distance more rather than less important. Johnson and Noguera (2012) find that proximity is especially important for intermediate trade. As production becomes more fragmented, distance appears to matter slightly more. A corollary is that the UK value added in exports to Europe is slightly less than the gross trade figures suggest.

In all likelihood, the UK will have to first establish its new trade arrangements with the EU as the basis for agreements with other countries. Each of the UK's options involves

¹ All data are from the IMF Direction of Trade Statistics 2015.

a trade-off between degrees of access to the Single Market and control over economic policy leavers. As a member of the EEA, the UK would have access to, but would not be part of, the Single Market. The UK would not have a vote on the rules and regulations of the market or access to the same courts in case of disputes. EEA membership involves accepting the free movement of labour, or at least with minimal temporary restrictions. UK exports would be subject to ‘rules of origin’ to tax the intermediate trade from outside of the EU. This would be invasive and expensive, given the trend towards global value chains.

The second option is for the UK to re-join the European Free Trade Association (EFTA). This is similar to the EEA option, but with less access to the Single Market beyond goods trade. Switzerland is the most prominent EFTA member and is required to strike bilateral treaties with the EU to secure access to the Single Market for specific services only. This carries a significant cost as many services, for example financial services, are carried out through third countries such as the UK. In 2014 the Swiss voted in favour of restricting migration. The EU has made it clear that this is incompatible with access to the Single Market. Switzerland makes a smaller per capita contribution to the EU budget than Norway in the EEA, to reflect the lower level of market access.

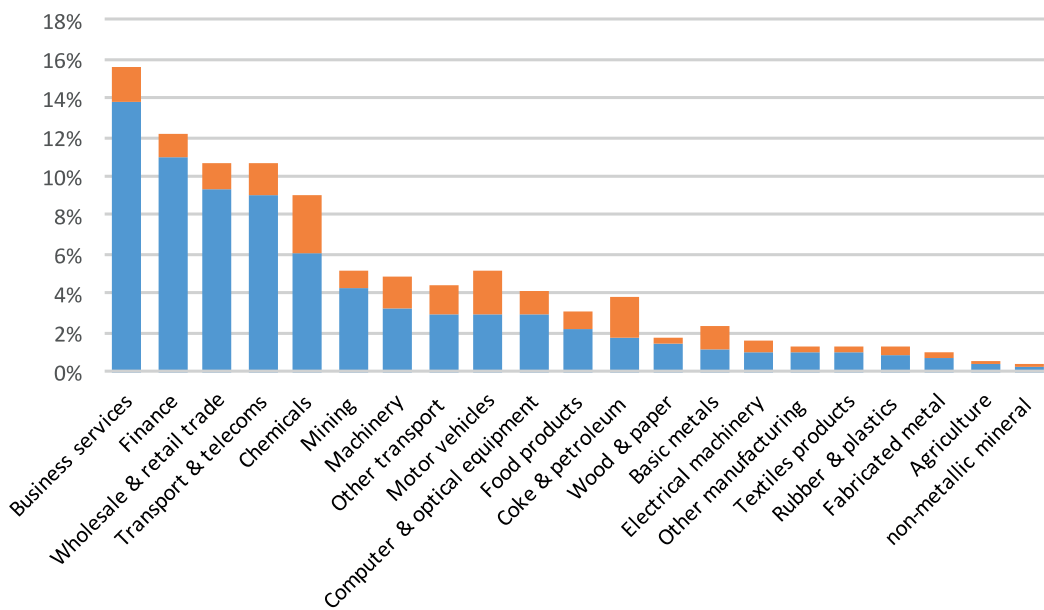
Industry priorities

The UK must also consider the market structure of its most successful industries when considering trade negotiations. It is important to know which sectors generate the most value added for UK firms and not just the gross trade flows. According to the gross trade data, services industries account for 44% of total exports. Yet the OECD estimates that in 2011 (the latest data available) 52% of the value added in UK exports was generated by domestic service sector firms. A short animation shows why trading services is fundamentally different to trading goods.² The right to establish firms in overseas markets, the same rules and regulations, mutual recognition of providers and free movement of labour are all necessary for being part of a Single Market for services exports.

2 <https://www.youtube.com/watch?v=Hf8EHb5-HaM&feature=youtu.be>.

Figure 2 gives a breakdown of value added by domestic and foreign firms in UK exports by the most important trading sectors. It is striking that business services, finance, and wholesale and retail trade account for the same domestic value added as the 17 other sectors from chemicals onwards. For these businesses, trade policy is about market access, equivalent regulations, and mutual recognition. Many FTAs include service sector provisions, but they typically involve official procurement opportunities, cross-border exports of services (as opposed to locating firms in foreign markets) and transparency agreements, and cover specific sectors only. No FTAs offer anything like the service sector access offered by the Single Market.

Figure 2 Domestic and foreign value added in exports by industry
 As percent of total gross exports, 2011



Source: OECD Trade in Value Added Tables, 2011 data.

Conclusion

The challenge for trade negotiators is to get the best possible package for each of the alternative trade arrangements. But it is ultimately for politicians to decide how the preferences of UK citizens might best map onto these alternative arrangements. From an economics perspective, it is clear that agreements offering deep market access are

more preferable than WTO access and many FTAs. The problem is that policies which enable deep market access encroach on the traditional domain of domestic policy. The optimal solution is to combine future trade arrangements with domestic policy. It might be possible to take the gains from trade while compensating for the social costs.

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6 UK-EU relations after Brexit: What is best for the UK economy?

Swati Dhingra and Thomas Sampson

LSE; LSE and CEPR

Several models exist for the UK's relationship with the EU following Brexit. This chapter argues that from an economic perspective, joining the European Economic Area and retaining access to the Single Market is the best available option. However, given the importance the new UK government – and at least part of the UK public – attaches to imposing controls on immigration from the EU, this option may not be politically viable. The question the UK must address as it debates the aftermath of Brexit is whether the costs of the alternative are a price worth paying.

The UK has voted to leave the EU, but not in favour of any specific alternative to EU membership. This poses a challenge for UK policymakers and the new prime minister, Theresa May. What should the UK's relations with the EU be following Brexit?

It is naïve to expect that economic considerations will be the only factor determining what relationship the UK eventually seeks with the EU, or what deal the EU is willing to grant the UK. If the UK government's objective were to obtain the highest possible standard of living for UK citizens, it would not invoke Article 50 of the Treaty of Lisbon and start the Brexit process. But if Brexit must happen, it is useful to understand which option would do least harm to the UK economically. This option can then serve as a benchmark for evaluating the trade-offs required to obtain political objectives such as limits on immigration and “taking back control”.

The UK's options

There are many models available to the UK: join the European Economic Association and remain part of the Single Market, like Norway; negotiate bilateral deals providing partial access to the Single Market, like Switzerland; sign a free trade agreement with the EU, like Canada; or trade with the EU under WTO rules, as the US currently does.¹ Research on the economic consequences of Brexit clearly shows that the costs would be lowest under the first option – joining the EEA and remaining part of the Single Market.

Economic reasons for choosing the EEA

To explain why the EEA is the least bad option, we can consider the consequences of Brexit along four dimensions: trade, investment, immigration, and regulation. Trade makes countries better off by allowing them to specialise according to their comparative advantage, providing access to new and cheaper imported goods, and increasing competition between producers. Leaving the EU will hurt the UK economy by increasing trade barriers between the UK and the EU, but joining the EEA would lead to lower trade barriers than any of the alternative options.

As a member of the EEA, the UK would remain part of the European Single Market, meaning there would be no tariffs or other new border measures on UK-EU trade. In addition, the UK would continue to adopt all the EU's economic regulations, keeping non-tariff barriers between the UK and the EU at a lower level than if the UK leaves the Single Market and starts to diverge from EU regulatory standards. After joining the EEA the UK would no longer be part of the EU Customs Union, meaning it would face some new non-tariff barriers on its trade with the EU, such as rules of origin and the threat of anti-dumping duties. However, it would also be free to seek its own trade deals with the rest of the world.

Analysing the trade effects of Brexit, Dhingra et al. (2016a) find the EEA option is equivalent to a 1.3% fall in the UK's income per capita, while the WTO option is twice

¹ See Dhingra and Sampson (2016) for a detailed description of each of these options. Although the EU-Canada free trade agreement negotiations were completed in 2014, it has yet to come into force.

as costly, leading to a 2.6% decline. Importantly, these estimates also net out post-Brexit changes in how much the UK pays into the EU budget. As an EEA member the UK would continue to contribute to the EU budget, but based on how much Norway pays, its contributions would be around 17% lower. The analysis in Dhingra et al. (2016a) shows that the costs of Brexit come mainly from higher non-tariff barriers, not from changes in tariffs. This illustrates why a traditional free trade agreement that focuses only on reducing tariffs is not a good alternative to EU membership.

Foreign direct investment (FDI) directly raises output and employment, but also has indirect benefits through the transfer of new technologies and managerial know-how. Bruno et al. (2016) estimate EU membership increases FDI inflows by around one-quarter compared to either having a free trade agreement with the EU or trading with the EU under WTO rules. The UK is the third-largest recipient of FDI in the world. One of the reasons the UK is an attractive destination for FDI is that firms which invest in the UK have free access to all other EU markets, so they can use the UK as a platform for exporting to the EU.

Higher tariff or non-tariff barriers between the UK and the EU would reduce the advantages of investing in the UK. EEA membership is the best alternative from the perspective of FDI because it would lead to smaller increases in trade barriers than any other option. Particularly important are 'passporting rights', which allow financial institutions operating and regulated in the UK to do business throughout the Single Market. These rights have played an important role in allowing the UK to dominate the European market for financial services. All EEA members have passporting rights, but no country outside the EEA does (Dhingra et al. 2016b).

Turning to immigration, EEA membership requires agreeing to free movement of labour with other EU and EEA countries. While immigration from the EU is politically unpopular in the UK, research has failed to find any robust evidence that immigration has hurt the UK economy (Dhingra et al. 2016c). In fact, there may be benefits from obtaining access to a wider pool of skills. Limiting immigration into the UK would also mean accepting new restrictions on emigration from the UK to the EU, which would reduce the opportunities for UK citizens to live and work in other EU countries. Finally, it is important to remember that EU immigrants are net contributors to the

UK government's budget (Dustmann and Frattini 2014). Consequently, reducing immigration would increase the UK's fiscal deficit.

Since EEA members are part of the Single Market, they must adopt the EU's economic regulations. But EEA members that are not also part of the EU do not have a vote on what these regulations are. Therefore, leaving the EU to join the EEA would reduce the UK's control over economic regulation. By contrast, trading with the EU under a free trade agreement or WTO rules would give the UK greater control over economic regulation. However, there are two reasons why EEA membership is still the better economic option. First, EU and EEA members have ample scope to tailor their implementation of EU regulations to reflect their national interests. OECD measures of product and labour market flexibility show the UK has similar levels of flexibility to the US and Canada, while most other EU members have more rigid economies. Consequently, the potential benefits from regulatory changes in the UK are likely to be small. Second, common regulatory standards across members of the Single Market are what keeps non-tariff barriers low, which increases the gains from trade. Overall, the costs of reduced control over economic regulation are lower than the benefits of regulatory harmonisation.

Conclusions

Economically, none of the options facing the UK is preferable to staying in the EU. But joining the EEA and remaining part of the Single Market is the best available option, as it would minimise the disruption to the status quo and keep the UK closely integrated with the rest of Europe.

Given the importance the new UK government – and at least part of the UK public – attaches to imposing controls on immigration from the EU, the EEA option may not be politically viable. But this only highlights that the government's political objectives have economic costs. The question the UK must address as it debates the aftermath of Brexit is whether these costs are a price worth paying.

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7 The Ten Commandments of an independent UK trade policy

Simon J. Evenett

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The UK must now formulate and execute an independent trade policy for the first time in over 40 years. This chapter summarises the catalogue of failure that has been the governance of the world trading system in the 21st century, and proposes Ten Commandments to guide UK trade ministers in the forthcoming negotiations.

Brexit means Brexit. Consequently, the UK must now formulate and execute an independent trade policy for the first time in over 40 years. The purpose of this chapter is to summarise the catalogue of failure that has been the governance of the world trading system in the 21st century, done with an eye to extracting lessons for future UK trade policy.

For sure, there have been a few bright spots but, in its essentials, the governance of world trade has not taken a major step forward since the accession of China to the WTO in late 2001. Regional trade deals have yet to provide a template to update the current set of global trade rules that were agreed back in 1994, over 20 years ago.

While trade negotiators talk and talk, the world has moved on. Business has not stood still – some continue to expand supply chains (Baldwin 2012), while others are localising production to overcome new protectionist barriers (Bhatia et al. 2016). Many governments have acted unilaterally too, revisiting their commitment to a level playing field in the wake of the Global Crisis (Aggarwal and Evenett 2014).

These days the cold, objective reality is that trade deal-making is not where the action is – governments are chartering their own course, making little reference to an out of date, under-enforced global trade rulebook.

It is said that failure is an orphan. This is true of failed trade talks. Negotiators, ministers, even prime ministers and presidents like to gloss over disagreement (just take a look at the spin in any number of G7, G8, and G20 communiqués on the WTO’s Doha Round talks that dragged on for 14 years). For some involved in trade policymaking, the glass is never half empty – hope always triumphs over experience.

Scholars are equally culpable, preferring to focus either on the deals that do get done, on imagining what new deals could look like, or in deifying the global trade accords of the now distant past. In contrast, it is remarkable that there are only two economic models of the deadlock in the current WTO talks (Bagwell and Staiger 2012, Evenett 2014). What, then, are the lessons for UK trade policy of a result-oriented assessment of attempts to reform 21st century trade governance?

The WTO in abeyance

Since its creation in 1995, the WTO has not been a forum where nations have managed to strike major new trade deals. It took six years for governments to agree to launch global trade talks, and another two and a half years to agree on the negotiating agenda in July 2004. A trade negotiation that put promoting economic development on the same pedestal as traditional commercial horse trading ultimately failed. At present, the Doha Round is a zombie – everyone knows it is not alive, but it just will not die.

During the Doha Round talks it became evident that the biggest players were simply not willing to reform sensitive policies in legally binding trade deals. The negotiating agenda was sufficiently wide to accommodate all sorts of trade-offs but, for a variety of significant domestic political reasons, no landing zone was reached in this negotiation. Interestingly, smaller deals have been possible in the WTO in single areas – such as IT products and government procurement – where there were still enough gains from traditional commercial horse trading. Meanwhile, a deal to streamline customs houses

is well behind its implementation schedule. So much for the WTO as a negotiating forum.

The WTO's legally binding dispute settlement mechanism is falling into disuse and disrepute. Given the widespread resort in recent years to subsidies in tradable sectors, the number of cases brought on these matters is suspiciously low. Old hands will recognise the phenomenon. After all, some areas of WTO rules are never brought to dispute settlement, such as the rules relating to regional trade agreements.

Where cases do occur, litigants have taken steps to defang the system. The collusion between Australia and the US in the automobile leather dispute to avoid setting a tough precedent on subsidy repayment being a case in point.¹ Elsewhere, with a former senior WTO official, I have documented other end runs around the WTO's dispute settlement procedures (Evenett and Jara 2014). Lastly, the US has been widely condemned this year for politicising the appointment of WTO judges (*Financial Times* 2016).

That the WTO's dispute settlement system is falling into disrepute should not surprise analysts with an understanding of the history of the world trading system. The current system was created once diplomats had perfected end runs around the previous system. The incentives to circumvent mechanisms designed to hold governments to account have not gone away and no one supposes that today's diplomats are any less creative – so is there any wonder that after 20 years of operation the current system's flaws have become apparent?

Regional trade agreements: More heat than light

Once a global trade deal was no longer on the cards, the larger players turned to negotiating regional trade agreements (RTAs). For the US this meant accelerating its programme of Competitive Liberalization (Evenett and Meier 2008). For the EU this meant launching a new trade strategy in 2006 titled *Competing Globally*, under the leadership of Peter Mandelson (Evenett 2007). In both cases expectations were high

¹ WTO dispute settlement case DSU 126.

– they were not met. My focus here is on the trade talks that matter most for UK trade policymaking.

The biggest deal the US has signed is the Trans-Pacific Partnership (TPP), which involves 11 other nations including Japan. In addition to real concerns as to whether the US Congress will ratify this deal, it is worth bearing in mind that, according to the latest estimates from analysts sympathetic to this ‘gold standard’ deal, TPP is expected to raise real US income by 0.1% in 2020 and by 0.5% in 2030 (Petri and Plummer 2016). The long implementation lags and the fact that the US refuses to undertake sensitive reforms in its trade deals accounts for the TPP’s tiny effect on US living standards.

Experience also demonstrates that negotiating RTAs with foreign policy allies does not guarantee satisfactory outcomes. The free trade agreement offered by the US to Australia, an ally in the second Gulf War, offered so little extra market access for key Australian exports that Australian negotiators recommended their government reject the deal. The Australian prime minister at the time could not bring himself to do that to an ally (Capling 2004).

Of the ten biggest foreign markets identified by the European Commission in 2006, ten years on trade deals have been concluded with just two. One of those deals – with Canada – is now in jeopardy as the European Commission capitulated to opponents and raised the bar on ratification. In addition, analysis has revealed just how poorly the European Commission enforced its trade deals (Evenett 2016).

The transatlantic trade talks were already in trouble before Brexit, attracting unprecedented civil society opposition in Europe as well as failing to address key demands to reform regulations, which was supposed to be at the heart of the deal (Aggarwal and Evenett 2016). Anticipating a negative reaction from the US Congress, European Commission proposals for an Investment Court face sustained opposition from US officials.

UK officials have long shown interest in a free trade deal with China. The Chinese RTA with Switzerland is instructive. Concluded in July 2013, independent analysis has shown this deal to be one-sided in almost every respect, with the Chinese refusing to reform their intellectual property rights law or (beyond securities trading) to open

up their financial services sector to the Swiss (Wenfei 2013). Since then, signals from Beijing suggest an even greater reluctance to reform in the context of trade deals.

In sum, regional trade agreements generate few meaningful economy-wide benefits, on timetables well beyond any politically meaningful time horizon, and run into the same constraint faced at the WTO – namely, at this time, large players are not willing undertake sensitive reforms to their economies in trade deals. Given the UK’s strong service sector which would benefit from reform of the relevant foreign regulations, the latter really matters. Moreover, with the rise of populism in many societies, the political viability of these economic minnows is being called increasingly into question.

The Ten Commandments

The implications of this dispassionate *tour de horizon* of the world trading system can be crystallised into ten guiding principles for an effective, independent UK trade policy. The principles call for a focused trade policy, unswayed by historical attachments, or by any desire to spread British values or to do good in the world (development policy). The head must rule the heart.

In the cold, hard world of trade policy, pursuit of anything other than national commercial interest results in lost opportunities, delayed negotiations, or weak deals. The past 15 years are littered with examples of trade ministers and EU trade commissioners who thought they could be the Henry Kissingers or Mother Therasas of the world trading system. History will record their failures. To avoid their fate, UK trade ministers should be guided by the following Ten Commandments:

- 1. The sole legitimate objective of an independent UK trade policy is to raise British living standards.**

Don’t let other objectives – development, national security, etc. – unduly influence UK trade policy.

2. Unilateral trade policy matters most.

In an era in which the large players won't seriously reform their economies in binding trade deals, UK policies towards openness and the promotion of competition in its own economy will have the biggest impact on British living standards.

3. Trade rules always lag protectionist policy innovation.

Although protectionism has a bad name, protectionist pressure never goes away – so expect trade partners to implement seemingly benign policies in a beggar-thy-neighbour manner.

4. People who live in glass houses don't throw stones.

When the global economy is doing badly, most governments succumb to beggar-thy-neighbour activity and rarely invite retaliation by complaining aggressively about foreign protectionism. In these circumstances, global trade rules lose much of their force. G20 pledges to eschew protectionism never stood a chance.

5. Treat the WTO like the Royal Family – say nice things about it, even respect it, but don't expect much in the way of accomplishments.

Until the largest trading nations are willing to undertake sensitive reforms in the context of binding trade deals, Geneva will be a backwater for UK trade policy.

6. Always ask: What is the basis of a trade deal?

Reciprocity is at core of any sound trade deal – there's no room for charity in trade negotiations. If the Chileans, Mexicans, and Singaporeans haven't launched trade talks with a foreign government – or have abandoned trade talks – then this is like finding a dead canary in the mine.

7. Walking away from a weak trade deal is a sign of strength.

Just prepare the ground for the inevitable 'blame game' that will follow.

- 8. Develop the full range of trade policy tools – and don't become too enamoured with any particular tool, such as regional trading agreements.**

If all you have is a hammer, everything looks like a nail.

- 9. Cultivate multiple sources of intelligence about policy dynamics in trading partners, their effects, and UK trade policy options – generalist ministers and civil servants will almost always be at an information disadvantage to highly informed, interested parties.**

- 10. Accept the Serenity Prayer: God grant me the serenity to accept the things I cannot change, the courage to change the things I can, and the wisdom to know the difference.**

The formulation of an independent UK trade policy affords an excellent opportunity for fresh thinking and to break free of the missteps that have so hampered EU trade policymaking. In presenting ten guiding principles for UK trade policy, I hope to provoke as well to propose. Others may take umbrage at my list and want to counter with their own principles – in which case, fair enough.

What matters is that the UK government takes the time to sort out a medium- to long-term approach to trade policymaking that eschews the false sirens of hope in favour of painfully learned lessons of the 21st century, a clear understanding of the British interest, and a pragmatic understanding of what trade deals can really achieve.

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8 Negotiating Britain's new trade policy¹

Jim Rollo and L Alan Winters

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For over four decades, the EU has managed most international trade policy on behalf of the UK. After Brexit, the UK government will have to reconstitute trade links with EU, with third nations while disentangling the UK from the commitments that the EU made on its behalf in the WTO. This chapter suggests some strategies for the UK government to follow in reconstituting its trade policy. The watch words should be simplicity and cooperation. Maintaining the goodwill of trading partners will be a very high diplomatic priority.

For over four decades, the EU has managed most international trade policy on behalf of the UK. Brexit changes all this. The UK now needs to debate and define its ambitions for international trade and then negotiate them with its partners.

In leaving the EU, it will reassert its status as an individual member of the WTO and will need to determine all the details of its trade policy within the framework of WTO rules. However, WTO rules offer considerably less market access than do the Single Market in the EU or the FTAs that the EU has negotiated with other partners to their markets.

Moreover, extracting the UK from the EU's commitments in the WTO entails complications and negotiation. This chapter warns that the 'WTO option' for UK trade is not a simple or attractive way to continue UK trade – i.e. that maintaining exports

1 This chapter is based on the Observatory's Briefing Paper No. 1 "The World Trade Organisation: A Safety Net for a Post-Brexit UK Trade Policy?", to which several other members of the UK Trade Policy Observatory contributed.

requires that we do better than that. It also argues that the key to being able to do better is to cultivate cooperation and goodwill with the remaining members of the EU (the EU27) and our other WTO partners. It is a diplomatic challenge.

The situation today and after Brexit

Until the Article 50 procedures are completed, the UK remains a full member of the EU with access to the Single Market and trade policy determined by the EU and implemented by the EU Commission. All existing EU agreements with other WTO members would still apply and the treatment of UK imports from and exports to EU partners and third countries should receive exactly the same treatment as before the referendum.

After Brexit, the UK government has complete control over the treatment of imports (subject to WTO commitments) and it could choose to continue to apply the same measures as previously, which would be consistent with the tariff and services schedules it agreed to as a member of the WTO in the WTO's Uruguay Round and as subsequently revised to take account of subsequent enlargements of the EU.

If Britain decides to raise barriers, this would, in principle, give rise to renegotiations with affected WTO members. We would strongly advocate against this. The UK should not raise barriers. It should maintain or even lower them from current levels and this for two reasons. First, this would be good policy, but second it would be efficient in terms of reducing the burden of renegotiations. Raising barriers angers foreign exporters in a way that would complicate many of the trade negotiations that the UK must conduct in the years to come.

The three big questions

As of today, we do not know what the British government's goals are when it comes to trade policy. As a consequence, we do not know how other nations are going to treat UK exports. There are three classes of trading partners:

- The EU27;
- Those countries which have negotiated, or are negotiating, preferential trading arrangements with the EU (e.g. Turkey); and
- Those countries which have a most-favoured nation (MFN) relationship with the EU based on tariffs and services schedules negotiated in the WTO (e.g. the US).

The relationship with the EU27 is complex because it is unclear whether the Treaty on the Functioning of the European Union (TFEU) allows negotiation of the post-Brexit arrangements between the UK and the EU27 in parallel with the Article 50-mandated negotiations on the terms of the exit.

If the EU27 will not allow a new trade relationship to be negotiated until the UK has left the EU, or if the trade agreement were not completed by the end of the exit negotiations, the default position would be that both sides treat each other on MFN terms, which is unlikely to be desirable for either. For example, 44% of UK exports go to the EU and face zero tariffs and very low non-tariff barriers courtesy of the Single Market. If that trade were carried out on an MFN basis, around 16% of UK exports to the EU27 would face tariffs exceeding 7%, of which half would be motor cars, which would face a tariff of 10%. The average MFN tariff levied by the EU is 5.3%.²

Disentangling the UK's and EU's commitments at the WTO

There are also some gritty little problems to resolve in traditionally very sensitive areas. For example, the EU's expenditure limit on trade-distorting agricultural subsidies under the WTO's Agreement on Agriculture is a single figure which will need to be divided up between the UK and the EU27. This will require a three-way negotiation with third

² MFN applied tariff, unweighted average, total trade 2014 (source: WTO tariff profiles).

parties, which may have material interests in the division because the UK and other members will subsidise different bits of agriculture.

Turning to services, the EU again takes about 50% of UK exports and is the single most important trading partner across all major types of services, of which the main components are, in order, professional, scientific and technical services, information and communications services, and financial and insurance services.

Here it is much more difficult to gauge the change in trade barriers that Brexit implies because the Single Market is incomplete (i.e. some services barriers persist within the EU even now) and because there is no uniform EU external trade policy for services. Rather the EU's GATS schedule sets out a framework for market access which is punctuated by individual countries' derogations in particular subsectors and modes of supply. The latter also means that the negotiation of a long-run agreement will be complex and time-consuming because it will require negotiations with all individual EU member states as well as with the Commission. Moreover, although EU members' applied policies towards services imports are often more liberal than their GATS commitments, only the latter are guaranteed, so that even if the former are more favourable, they could be removed at any time and thus are afflicted by considerable uncertainty that does not pertain while the UK is within the EU.

A temporary extension of the status quo?

A gentler alternative to dropping straight to MFN trade would be to temporarily extend the status quo in EU-UK trade while a long-run relationship is worked out, although that requires finding a balance between access to the Single Market on the one hand, and free movement of labour on the other.

Other WTO members may object to this as a violation of MFN, but any dispute would take a considerable time and it is also possible (likely?) that, recognising the disruption of a sudden unprepared change, other WTO members would allow de jure or de facto temporary waivers to allow the EU-UK negotiations to continue without pressure from Geneva. Of course, that does assume goodwill on all sides.

The post-Brexit relationship with countries that have preferential trade agreements with the EU (mostly FTAs) may be easier than the EU27 one, because they may be more relaxed about having informal discussions about allowing the existing bilateral arrangements to continue while a formal FTA or similar agreement is drawn up. And the stakes are higher in these markets because in general, their MFN policies are less liberal than those of the EU. Trade with those countries in 2015 represented 14% of UK exports and the average MFN tariffs that they would face vary from under 5% (Israel) to almost 30% (Egypt) and, perhaps most notably, 17% in Korea. At a more detailed level, tariffs could be considerably higher.

The situation is similarly varied for services, but if the UK no longer received the terms of the EU's flagship trade deal with Korea, for example, the UK would lose considerably.

It is not easy to compare the Korea-EU FTA and the GATS schedule because they differ in structure. For example, the FTA incorporates rules about the establishment of foreign firms into its investment conditions rather than as an element of services trade. Nonetheless, in many specific areas the EU-Korea agreement goes well beyond Korea's GATS commitments. For example, in financial services it opens up the Korean market in several respects, and in particular allows EU firms the right to offer new financial services as they develop. It also opens telecommunications markets by reducing local ownership requirements, as well as the legal services and shipping services markets. Moreover, the Korea-EU FTA is similar to the Korea-US FTA, so that if the UK could no longer trade under the FTA, it would suffer disadvantages relative to both the rest of the EU and to the US.

The extension of current bilateral arrangements again requires goodwill – on the part of the partner countries and also, to an extent, on the part of the EU27 in not trying to block such extensions.

Finally, for countries with which the EU currently has MFN-based trade relations, a continuation of these after Brexit seems to be the line of least resistance. There is much talk about concluding trade agreements with some of these countries over the two-year exit negotiation period, so that they can be implemented immediately on exit. This underestimates the time and effort that is required to negotiate half-decent agreements

under the best of circumstances, and also the complexity (on both sides) of the UK negotiating with third parties while its relationships with the EU and the current FTA partners remain unclear.

Moreover, there may be more important things to sort out than FTAs. For one, the UK has membership of the WTO's Government Procurement Agreement (GPA) only through its membership of the EU; the EU ratified the GPA on behalf of its members but the UK has not, so far, done so individually. The annual value of procurement activities opened up to international competition by the 43 GPA parties amounts to US\$1.3 trillion according to European Commission figures, and if it does not ratify/accede in the interim, the UK will lose its rights of access to all GPA members' procurement markets on exit from the EU. Given its large market and the generally liberal attitude of British governments to buying foreign goods, an important share of the benefit of the EU schedule under the GPA to other members stems from UK purchases (PwC, Ecorys and London Economics 2011). This means that Brexit will change the deal third nations struck with the EU on government procurement. In the world of trade, such changes trigger renegotiations. Thus the new GPA deal for the UK will probably require a three-way negotiation (UK, EU27 and third nation) with each of the 18 other parties to the GPA. The complexity and need for goodwill is obvious.

Conclusions

Reconstituting UK trade policy will be complex and time-consuming, and if Britain is forced to trade just on 'WTO terms' rather than with the preferences it has become used to on around three-fifths of exports, its trade performance will suffer. Thus the watch words should be simplicity and cooperation. The latter makes maintaining the goodwill of trading partners a very high diplomatic priority.

We recommend that the UK government should:

- In the first instance, adopt existing EU WTO schedules covering imports of goods and services;

- Try to extend current EU-UK trade arrangements (i.e. the Single Market or something very like it) for a finite period in which a new long-term agreement can be negotiated;
- With respect to countries that currently have preferential agreements with the EU, push to initiate informal discussions immediately to maintain the access that these provide (where these arrangements are quite deep – as with Korea, for example – this will be important for service providers);
- Not privilege negotiating new agreements above preserving/modifying those that already exist;
- Examine the EU's WTO commitments carefully to ensure that the WTO rights and privileges that Britain currently gains from its membership via the EU are preserved after Brexit.

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9 Brexit: Lessons from history

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Joining the EU raised the level of UK real GDP significantly. This chapter suggests that leaving the EU will very probably have a negative effect on UK GDP, but history does not tell us how strong this effect will be. However, history does suggest that the notion that there will be a faster rate of long-run trend growth facilitated by Brexit is not persuasive. The obstacles to better supply-side policy are, as ever, to be found in Westminster not in Brussels.

The voters have opted for Brexit. It seems that the UK will soon leave the EU, having been a member since 1973. This is despite warnings from many economists that such a decision would probably entail very significant economic costs, not only in the short run during the transition period but also in the long run through a permanently lower level of income and productivity (Table 1). On the other side, claims are made that, freed from the constraints imposed by EU membership, economic policy reforms can deliver a faster rate of economic growth so that, at least in the long run, the UK economy will benefit from Brexit.

Table 1 Long-run impact of Brexit on level of real GDP (%)

LSE	-7.9
HM Treasury	-3.8 to -7.5
NIESR	-7.8

Source: adapted from Ebell and Warren (2016)

It has been widely noted that after the UK joined the EU its relative growth performance compared with France and Germany showed a sustained improvement (Table 2). Some have interpreted this, at least in part, as a result of EU membership, but Eurosceptics

tend to attribute it to the economic policies pursued by the Thatcher governments during the 1980s and largely sustained by subsequent Labour administrations.

Table 2 Rates of growth (% per year)

	Real GDP/person	Real GDP/hour worked
<i>1950-1973</i>		
France	4.02	5.29
Germany	5.00	5.91
UK	2.42	2.81
US	2.45	2.57
<i>1973-1995</i>		
France	1.65	2.67
Germany	1.76	2.86
UK	1.76	2.40
US	1.81	1.27
<i>1995-2007</i>		
France	1.75	1.75
Germany	1.56	1.70
UK	2.55	2.17
US	2.16	2.21

Source: The Conference Board (2015)

Trade effects after the UK's 1973 membership

Gravity models of trade indicate that the EU has been highly effective in raising trade volumes, presumably because it has reduced trade costs more than is typical of trade agreements and achieved a relatively deep level of economic integration. Using the results in Baier et al. (2008), I estimate that leaving EFTA and joining the EU raised total UK trade by 21.1% by 1988 (Crafts 2016), and that this might be expected to have increased the level of UK GDP by 10.6% based on an assumed elasticity of 0.5 between trade volumes and income (Feyrer 2009). An alternative approach using a synthetic counterfactuals methodology finds that EU accession raised GDP by 8.6% after 10 years (Campos et al. 2014).

Four points should be noted about these estimates.

- First, they are much higher than even optimists predicted at the time of joining (Table 3) because they capture ‘dynamic effects’.
- Second, a key transmission mechanism was through the impact on productivity of increased competition, which was an antidote to bad management and dysfunctional industrial relations (Crafts 2012); at least through the 1986 Single Market Act, EU membership was an integral part of the Thatcher reforms.
- Third, the benefits of membership far outweighed any reasonable estimate of the membership fee entailed by net budgetary transfers and the Common Agricultural Policy, which amounted to less than 1% of GDP.
- Fourth, the impact was on the level of GDP not the trend rate of growth; it is domestic supply-side policies that matter for long-run growth.

Table 3 Estimates of impact of UK accession to the EU (% GDP)

Ex ante (1)	-1.2
Ex ante (2)	0.6
Ex post (1)	8.6
Ex post (2)	10.6

Sources: Ex-ante (1): Miller (1971); Ex-Ante (2): Josling (1971) and Williamson (1971); Ex-Post (1): Campos et al. (2014); Ex-Ante (2): Crafts (2016).

Estimates of the long-run impact of Brexit (cf. Table 1) typically use variants of the method described above to calculate its effect on trade and then to work out the implied impact on GDP. The idea is to use historical evidence to predict the future. However, this must be regarded as a doubtful procedure because there are no gravity model estimates relating to ex-members of the EU, whose trade flows may well differ from those of ‘never-members’. Moreover, insofar as the main impact on productivity originally worked through increased competition, exit from the EU may not reverse much of this given that the UK now has a much more effective competition policy and the economy is no longer mired in its problems of the 1970s.

The proximate sources of growth can be found in rates of increase of factor inputs, including capital, human capital, and hours worked, and of the productivity of those

inputs. At a deeper level, economics highlights the importance of micro-foundations of growth in terms of the key role played by the incentive structures which inform decisions to invest, to innovate, and to adopt new technology, and which depend on institutions and policy. Obviously, there are a large number of supply-side policies that affect growth performance. These include areas such as competition, education, infrastructure, innovation, regulation, and taxation. Moreover, even for EU members, to a large extent these are very largely under the control of national governments.

The source of today's economic policy failings

Even though relative UK growth performance improved prior to the Global Crisis, there have been long-standing failings in supply-side policy (Crafts 2015). The most obvious is in innovation policy, which is reflected in a low level of R&D (Frontier Economics 2014), but education (Hanushek and Woessmann 2012), infrastructure (LSE Growth Commission 2013), land-use planning regulation (Cheshire and Hilber 2008), and the tax system (Mirrlees et al. 2011) also give significant cause for concern, while British capital markets remain notably short-termist with a bias against long-term investment (Davies et al. 2014).

Although Euroseptics complain about the costs of EU-imposed regulations, it should be recognised that the UK has persistently been able to maintain very light levels of regulation in terms of key OECD indicators such as product market regulation (PMR) and employment protection legislation (EPL), for which high scores have been shown to have significant detrimental effects (Barnes et al. 2011). In 2013, the UK had a PMR score of 1.09 and an EPL score of 1.12, the second and third lowest in the OECD, respectively. Moreover, it is noticeable that the regulations which it might be politically feasible to remove in the event of Brexit do not include anything that might make a significant difference to productivity performance (Booth et al. 2015).

If Brexit could make possible radical changes to policies that affect the growth rate, then an economic case in favour might be made. Is this an omission in the studies considered in Table 1? After all, as was noted earlier, there is much that could be done to improve UK supply-side policy, for example, in the areas of education, infrastructure, innovation, and the tax system. However, reforms are not precluded by EU membership.

Concluding remark: Westminster is holding Britain back, not Brussels

The obstacles to better policy lie in Westminster not Brussels, and are related to British politics rather than constraints imposed by the EU. Whereas 40 years ago, entry into the EU did help to improve supply-side policy by strengthening competition, today there is no problem area to which Brexit is required to provide an answer.

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10 Brexit – what happens to banking?

Patricia Jackson

Atom Bank, EY and CEPR

The Brexit vote has created particular uncertainty for London, the EU's largest financial centre. This chapter looks at the issues facing the UK's banking sector in the wake of the referendum: the right to conduct cross-border activity in the EU in future, the impact on flexible recruitment in London, the possibility of diverging UK and EU regulation, and the effect on bank profitability more widely across Europe.

The Brexit vote has undoubtedly created uncertainty and market volatility, with particular uncertainty for London, the EU's largest financial centre. One issue facing the UK banking sector is the right to conduct cross-border activity in the EU (so-called passporting) when the UK is no longer an EU member. Another is the impact of Brexit on flexible recruitment in London. A further issue is the possibility that UK regulation moves away from that in the EU. The final question is the effect on bank profitability more widely across Europe.

Passporting

Currently, banks established in the UK – either UK owned or UK subsidiaries of overseas banks – have the right to establish branches or carry out cross-border activity in the rest of the EU and other EEA states (passporting). It is far too early to say if these rights will be maintained as a result of the exit negotiations. If the rights are not maintained, then many banks may have to reassess their European structures if they wish to carry out cross-border activity into the EEA. Before deciding on changes, however, the banks need to consider the extent to which they can utilise existing subsidiaries established in the rest of the EU to achieve their passporting rights. A quick review of a sample of

major non-European banks with subsidiaries in London indicates that around three-quarters also have subsidiaries elsewhere in the EU.

In addition, the Markets in Financial Instruments Directive (MiFID) does allow for cross-border access by banks established outside the EU to exchanges, clearing houses, and clearing and settlement systems, and third-country equivalence provisions allow passporting into the EU to deal with professional clients. Third-country equivalence requires an assessment of areas such as authorisation and supervision, rules covering market abuse, and so on.

The questions are therefore much more about access to non-professional customers, and here existing subsidiaries could in many cases be used to provide passporting.

Regulation

One concern that the industry has is that UK regulation could diverge from that of the EU, adding cost and complexity. However, capital regulation of banks is underpinned by the Basel Accords, making it unlikely that the UK would move away from the EU in this area. Of course, over time some differences in application might develop, but in terms of implementation the UK has had a distinct approach. Indeed, changes in the Single Supervisory Mechanism led by the ECB are tending to bring the continent closer to the UK's approach in areas such as Pillar II, the assessment of risks in the round and adequacy of capital. The UK has also always had a distinctive approach to conducting regulation.

Attractiveness of London as a financial centre

The crucial question going forward will be London's continuing attractiveness as a financial centre. London's attractiveness has always centred on language, the size and interconnectedness of the different facets of the financial centre, its cosmopolitan nature and available skills, and labour market flexibility. Labour market flexibility is an important part of the modern UK economy, but access to skilled labour from the rest of the world, including the EU, will need to be maintained. Successive governments will have to consider what makes London attractive as a home for financial activity

and how to encourage those aspects. This means continuing to enhance infrastructure, considering taxes, and so on. If London continues to be attractive, then wholesale activity is likely to continue to gravitate to London.

Bank profitability

For the banking sector, the shorter-term implications of Brexit for profitability are perhaps even more front of mind. The very low interest rate environment is likely to persist for longer, with a further cut likely. Uncertainty is knocking on into lower growth and the possibility of a significant slowdown. This will also have an effect on the sector's profitability not just in the UK but across Europe. Banks are already under pressure from investors to increase the rate of return on equity, and now share prices have fallen significantly. So far, investors have not accepted that better capitalised banks will have lower returns on equity, justified by improved soundness. This increased pressure on profitability will create further impetus for business model change, with banks exiting lines of activity where adequate returns cannot be achieved (EY 2015) and striving to cut costs. In this environment, the further proposed changes to bank capital requirements post Basel III are extremely unhelpful. The UK is already planning to offset them by reducing the much higher Pillar II buffers required in the UK. The continent of Europe does not have this scope because the use of Pillar II has been more limited and the buffers are therefore lower.

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11 The implications of Brexit for the City

Michael McMahon

University of Warwick, Centre for Macroeconomics and CEPR

The UK's membership of the EU has been a key factor behind the City of London's emergence as a leading global financial centre. This chapter looks at the implications of Brexit for the City. While it is unlikely that many banks or other financial institutions will simply up and leave in the coming months, their expansion and hiring decisions may lean toward the remaining EU member states for some of their operations. And unless the politicians conducting the Brexit negotiations do their utmost to limit the damage, the loss of passporting rights is likely to have a significant negative impact on the UK financial sector.

In 2003, when assessing whether the UK should join the European single currency, one of Gordon Brown's five economic tests was: "What impact would entry into European monetary union have on the competitive position of the UK's financial services industry, particularly the City's wholesale markets?"¹ The financial sector was the only industry singled out for specific consideration when considering making a major step toward greater European integration.

The reason that the financial industry got such attention is that the City of London, the name given generally to the UK's financial markets and the industry that goes with them, is an important part of the UK economy and a leading global financial centre:²

1 http://webarchive.nationalarchives.gov.uk/20060715163410/http://www.hm-treasury.gov.uk/documents/international_issues/the_euro/assessment/report/euro_assess03_repintro.cfm

2 In fact, the Global Financial Centres Index has rated London as the world's most competitive financial centre for the past two years. It should be noted that Edinburgh also has a large financial sector.

- The sector generates a substantial share of UK economic activity.

Although only accounting for 3.4% of UK workforce jobs, financial and insurance services account for 8% of UK gross value added (2013 figures taken from ONS 2015).

- The sector generates a large trade surplus.

Financial services together with insurance and pension services ran a £58 billion trade surplus in 2014 (+3.2% of GDP). This helped to offset the trade deficits run by other sectors such that the overall trade deficit was £34.5 billion (-1.9% of GDP).

- The sector is an important source of tax revenue – about 11% of the national total.

The financial sector accounted for £7.6 billion of corporation tax in the tax year ending in March 2015; this represents 17.7% of the total corporation tax collected. The Bank Levy, employers' NIC, irrevocable VAT, stamp duties, and other taxes borne by the financial sector raised an additional £15.9 billion. The sector also collects PAYE income tax and employee NIC from its employees, as well as other taxes.

Altogether the total tax revenue borne, or collected, by the financial services sector in the 2014-2015 tax year is estimated to be £66.5 billion, or 11% of total UK tax revenue.³ This amounts to just over £1.2 million of tax revenue per week.

Success of UK financial services

There are many reasons for the success of the UK financial services industry. As well as the legal system, the English language, and the established complementary services industries, there is a particularly important role for the labour market. The UK's labour regulations are more flexible than those of many other EU countries, which makes it easier for UK firms to adjust their workforce more cheaply. And there is a large pool of skilled labour already working in UK financial services, which make it attractive as a location for financial services firms to establish themselves.

³ The figures are a combination of official statistics and estimates by Pricewaterhouse Coopers for a report for the City of London Corporation (PwC 2015).

But EU membership also plays a major role. Related to the labour market, a large number of the skilled financial workers in the UK industry are EU nationals who can freely migrate to the UK to provide their scarce skills into this important industry. More directly, EU membership grants UK financial services firms the right to conduct business anywhere in the 27 other EU countries; the so-called ‘passporting rights’.

Passporting rights and the implications of Brexit

To understand the issue of passporting rights and Brexit, we need to consider two things. First, we need to examine the amount of UK financial services activity that relies on passporting rights. Second, we need to consider what might happen to passporting rights under Brexit.

The now-resigned British EU Commissioner responsible for Financial Stability, Financial Services and Capital Markets Union, Lord Hill, has pointed out the benefits of passporting rights for the UK financial services industry:⁴

- British banks made over €1,000 billion of loans, and took a similar amount of euro deposits;
- The EU-regulated investment funds, “Undertakings for the Collective Investment in Transferable Securities” (UCITS), worth around €8,000 billion, can be managed by UK-based firms generating service fees and returns in the UK;
- Insurance and reinsurance firms do not need to undergo any equivalence assessment before providing their services across the EU;
- As a result of these benefits, half the world’s financial firms have chosen to base their European headquarters in the UK.

Additionally, UK-based banks were able to benefit from access to the ECB’s liquidity operations during the recent financial crisis period.

4 http://ec.europa.eu/commission/2014-2019/hill/announcements/commissioner-hills-speech-chatham-house-royal-institute-international-affairs_en

The effect of the Brexit vote on the UK financial services sector is highly uncertain as it ultimately depends on the negotiated deal. As a general case, I don't think other EU countries will want to be seen to allow the UK to choose the benefits it wants without the other aspects of membership (such as free movement of labour). And specific to financial services, some countries in the EU covet the large share of EU financial services that the UK has and will hope to be able to make their own country relatively more competitive.

Each of the broad models put forward as potential options for the UK entails different outcomes for passporting and financial services:

- The Norway model

Norwegian financial services have passporting rights, so a similar model for the UK would be the least disruptive for the City. Of course, this deal involves contributions to the EU budget and free movement of labour, which would seem to be part of the major objections to EU membership. Hence it is not clear it will be either offered, or would be accepted by the UK.

- The Swiss model (or Canada deal)

The deal that Switzerland has with the EU does not grant their financial institutions access to the EU market. The same is true for the (as yet unsigned) Canadian trade agreement.

- WTO rules

Without a new agreement, or with an agreement to default the UK to WTO status, the banks would naturally lose their passporting rights.

In the case of the 'no passporting rights' outcomes, there would be new restrictions on cross-border business for UK-based financial firms. If the EU were to agree that UK standards are equivalent to those in the EU, then financial services could still be provided into the EU. This status may mean firms have to set up subsidiaries in the EU (with the associated costs including capital requirements) and the extent to which EU regulators would easily allow firms continue to carry out the transactions from London while booking them through a subsidiary in the EU is unclear; some substantial

operations in the passport country will be required.⁵ Without this equivalence status, the costs of continuing to carry out EU business out of London are even higher.

Economists' assessments of these issues and the costs of Brexit

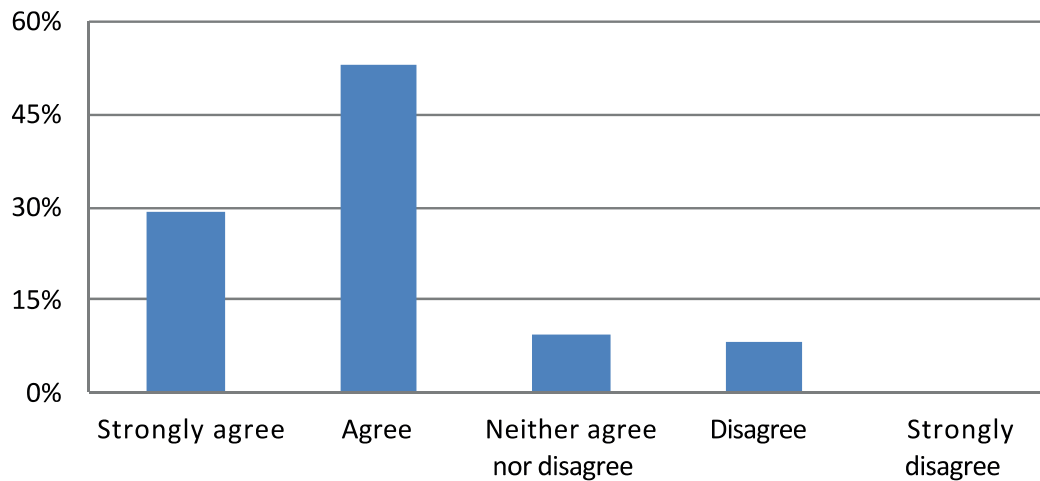
I believe that the UK will still have a relatively large and active financial system in the years ahead. Nonetheless, I also think that there are significant costs for the sector arising from Brexit. As argued above, part of the attraction of the UK's financial markets is its status as a major financial centre in the EU. The vote to leave the EU has cast doubt on this status and while I don't expect that many banks or other financial institutions will simply up and leave in the coming months, their marginal expansion and hiring decisions may lean toward EU member states for some of their operations. Over time, this will erode the overall size and importance of the UK financial markets. And the dynamics of agglomeration effects are such that the more firms move out, the greater the incentive for others to follow.

Most economists agree that there will be a negative impact on the UK financial sector. In June 2016, before the Brexit vote, the Centre for Macroeconomics survey of academic economists in the UK asked: "*Do you agree that there would be substantial negative long-term consequences for the UK financial sector if the UK were to leave the EU?*"⁶ The responses, weighted by self-assessed confidence, are reproduced in Figure 1. In a highly unusual situation of agreement amongst economists, 82% of the 38 respondents either strongly agreed or agreed; a mere 8% disagreed.

5 <https://next.ft.com/content/52d968b0-3a52-11e6-9a05-82a9b15a8ee7>.

6 The full discussion of survey results is available at <http://cfmsurvey.org/surveys/brexit-potential-financial-catastrophe-and-long-term-consequences-uk-financial-sector> and <http://www.voxeu.org/article/cfm-survey-june-2016-brexit-and-city>.

Figure 1 Confidence-weighted responses to the June 2016 CfM survey question: “Do you agree that there would be substantial negative long-term consequences for the UK financial sector if the UK were to leave the EU?”



My view of the costs is relatively sanguine compared to some of the economics profession. Ray Barrell of Brunel University London responded to the CfM survey saying, “[t]he UK financial sector is likely to suffer significantly if we leave the EU”. He stressed the loss of passporting rights and the likelihood that the ECB will work to ensure that it has regulatory control over the whole single market in financial services. Richard Portes of London Business School and CEPR mentioned similar points and felt that “[m]any activities and much financial sector employment would go to Frankfurt, Paris, and Dublin - Edinburgh as well, if Scotland were then to secede”. Separately to the CfM survey, Anil Kashyap of the University of Chicago believes that the UK financial sector will “shrink and shrink substantially”.⁷

⁷ Views expressed at the NBER Summer Institute discussion, “Brexit: Likely Effects of Britain's Departure from EU on Trade, the U.K., and European Integration” (video available at www.nber.org).

Concluding remarks

Returning to the five tests conducted to assess UK adoption of the euro, it is noteworthy that the financial services test assessed that while the UK's wholesale and retail financial markets would remain strong whether inside or outside EMU, EMU entry would likely enhance their position.⁸ It was the only one of the five tests that was met successfully. And now the UK is embarking on a period of finding out how costly taking a large step back from the EU is going to be for the sector.

Unless the politicians conducting the Brexit negotiations do their utmost to limit the damage, the loss of passporting rights, and initially simply the uncertainty concerning such market access, is likely to have a significant negative impact on the UK financial sector. Given the importance of this sector to the UK economy, this would contribute to an economic weakening in the UK.

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8 http://webarchive.nationalarchives.gov.uk/20130129110402/http://www.hm-treasury.gov.uk/euro_assess03_repexecsum.htm.

Labour issues

12 Immigration – the way forward

Jonathan Portes

NIESR

Immigration was a major factor – perhaps the major factor – in the Brexit vote. This chapter asks what the result of the referendum means for the UK’s immigration policy. It looks likely that the UK’s negotiating position may coalesce around an ‘EEA minus’ arrangement. While free movement would not continue as now, this would not imply moving to a system that gives effectively equal treatment to EU and non-EU nationals; there would still be a considerable degree of preference for the former. The negotiations would likely be legally, economically, and politically complex, but this does not mean that it is not worth trying.

If the UK’s vote to leave the European Union was a vote against anything, it was a vote against free movement of workers within the EU – a vote to “take (back) control” over immigration policy. For most economists, this is paradoxical. There is a clear consensus that in the UK the economic impacts of immigration, particularly from within the EU, have been largely benign (Portes 2015). In particular, there is little or no evidence of economically significant negative impacts on native workers, either in terms of jobs or wages, while the public finances and hence public services have, if anything, benefited (Wadsworth et al. 2016).

Nevertheless, immigration was a major factor – perhaps the major factor – in the Brexit vote. Looking at voting behaviour at a local level, while areas with relatively high numbers of immigrants overall were actually more likely to vote to Remain, areas which have seen particularly rapid recent growth in immigrant numbers were more likely to vote to Leave (Carozzi 2016).

What does it mean for UK immigration policy?

Before the referendum, it appeared that a Brexit vote would mean that the UK faced a clear choice on immigration policy (Portes 2016). If we wanted as far as possible to retain access to the Single Market – either by maintaining membership of the European Economic Area (like Norway) or via a series of bilateral agreements (like Switzerland) – then we would need to accept that freedom of movement would continue much as now. Recognising this – and regarding it as an unacceptable price to pay – those campaigning for a Leave vote rejected Norway/Switzerland-type options, accepted that we would not be a member of the Single Market on anything like the current terms (although we could negotiate a bilateral trade deal), and argued for an immigration system that did not discriminate between EU and non-EU nationals.

However, since the referendum result, political and economic realities have made both of these options look increasingly unattractive. There appears to be a growing consensus, uniting almost all pro-Remain politicians (including the new prime minister) and much of the Leave camp, that the UK should seek to maintain as full access to the Single Market as possible. At the same time, as noted above, it is impossible to view the referendum result as anything other than a rejection of free movement in its current form. Some degree of control of EU migration for work purposes would appear to be a political necessity.

The EEA minus option

As a consequence, it looks likely that the UK's negotiating position may coalesce around what has been described as 'EEA minus'. This implies that while free movement would not continue as now, we would not move to an immigration system that gives effectively equal treatment to EU and non-EU nationals; there would still be a considerable degree of preference for the former. What might this entail for a government that wanted to demonstrate that we can indeed control immigration from the EU within the limits of administrative and political feasibility?

- The first point to make is that it seems highly probable that EU nationals currently resident will be granted permanent residence rights.

There is clearly majority support for this; it is very difficult to see in practice that depriving significant numbers of people who have lived here for any period of time of the right to remain would be politically or administratively sustainable, regardless of the legal position.

- The second is that it does not seem likely or feasible that we would restrict EEA nationals' right to enter the UK without a visa.

Nevertheless, this does not mean that it is infeasible to restrict future EU migration for work purposes.

How could restricting work-related migration from the EU work?

There are two obvious ways to implement a system that imposes restrictions on EEA nationals that are more restrictive than the current system, but less so than that applying to non-EEA nationals:

- To oblige EEA nationals who want to work legally to apply for a work visa, as for non-EEA nationals, but with less restrictive rules.

This could mean lower qualification thresholds, a wider variety of occupations for which work visas were automatically issued, a separate and higher quota for Tier 2 visas, fewer or no restrictions on intra-company transfers, and so on. EEA nationals would presumably, unlike most non-EEA nationals, be permitted to apply for work visas from within the UK as well as from their home countries.

- To impose no specific restrictions with respect to occupation or skill level, but simply to restrict the issuance of new National Insurance numbers to EEA nationals, with a monthly or annual ceiling.

Once that ceiling was hit, any further EEA nationals seeking to work in the UK would have to apply through the system that currently applies to non-EU nationals. This would not stop them travelling to or living in the UK, but they would not be able to work legally.

Either system would in principle be feasible, albeit complex. The advantage of the first would be that it would at least partially address the concerns of those who complain that, unlike non-EEA nationals migrating for work purposes, we do not ‘select’ EEA nationals by occupation or skill level, and as a consequence a very large proportion work in low-skilled or low-paid jobs.

The disadvantage, however, is that it would replicate the bureaucratic and inflexible Home Office work visa system, albeit at a different level. This would require significant extra resources, which are unlikely to be forthcoming, and even if properly resourced would result – if the current system for non-EEA nationals is anything to go by – in large costs to business and a significant reduction in labour market flexibility. It is reasonably safe to assume that the consequent extra regulation would, in itself, more than outweigh any remotely plausible gains from reducing ‘EU red tape’ post-Brexit.

The second option also has disadvantages – it would mean that much continued EEA migration would be for relatively unskilled or low-paid jobs. Another possible downside might be an increase in irregular work. But against that, it could be administered in a relatively cheap and light-touch way – the only obligation on employers would be to verify that an EEA national had a valid National Insurance number. And, although it is difficult to judge at present, since it has at least some resemblance to the type of ‘emergency brake’ currently available (though never used) by EEA members, it is likely to be considerably easier to negotiate with the remaining EU member states than something which looks like a watered-down version of the system applying to non-EEA nationals. Finally, it also has the potential advantage that if EEA migration does indeed fall sharply over the next two years, as the UK economy weakens and EEA nationals feel less welcome here, any quota may in practice not have much impact.

Such a system would inevitably be bureaucratically and administratively complex, further complicated by the position of EEA nationals who have already exercised their free movement rights. It would constitute a significant increase in regulation and ‘red tape’ and a reduction in labour market flexibility, with the attendant economic costs.

Are such schemes politically feasible?

There are those who argue that, if the UK wishes to retain all or most of the privileges of membership of the Single Market, no meaningful restrictions on free movement, of the sort described above, are feasible. They may be right; negotiations that traded off such controls for concessions from the UK side will be complex legally, economically, and politically. The UK cannot have its cake and eat it. But that does not mean that, given the alternative – UK exclusion from the Single Market and an end to free movement, both of which would be economically damaging, both to the UK and to the remaining EU – it is not worth trying. We are in damage limitation mode.

Concluding remarks: And what if this is not negotiable?

If such restrictions are not acceptable to EU members, at least we will have an opportunity to reshape UK immigration policy outside the constraints currently imposed by free movement rules. This might allow a more liberal approach to non-EU migration, while rebalancing from unskilled to skilled migration. Relaxing controls on skilled migration could potentially relieve some of the barriers to growth imposed by current government policy, which prevent some companies from recruiting for skilled jobs (Migration Advisory Committee 2016). This could, in principle, both raise wages for the lower skilled and improve the fiscal impacts of migration, boosting post-tax incomes.

Again, the political obstacles may seem formidable, but that does not mean that – in the interests of the country as a whole – economists should not continue to press for a rational approach to migration policy.

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13 Brexit and wage inequality

Brian Bell and Stephen Machin

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Wage inequality was partly behind the vote for Brexit. This chapter shows how areas with relatively low median wages were substantially more likely to vote 'Leave', and discusses the likely implications of Brexit for wage inequality in the future. Increased likelihood of a recession, a negative shock to trade, reduced migration flows, and the possible loss of passporting rights for the City will all alter the structure of wages in ways that will need to carefully monitored and studied in due course.

The 'Leave' outcome of the UK's referendum on EU membership was in part shaped by issues surrounding today's labour market inequality, and the actual exit will have implications for inequality in the future. In this chapter we discuss both of these, first showing some evidence that the spatial distribution of Leave votes was correlated with low and stagnating real wage levels, and second considering some key areas of relevance of the vote outcome for aspects of wage inequality.

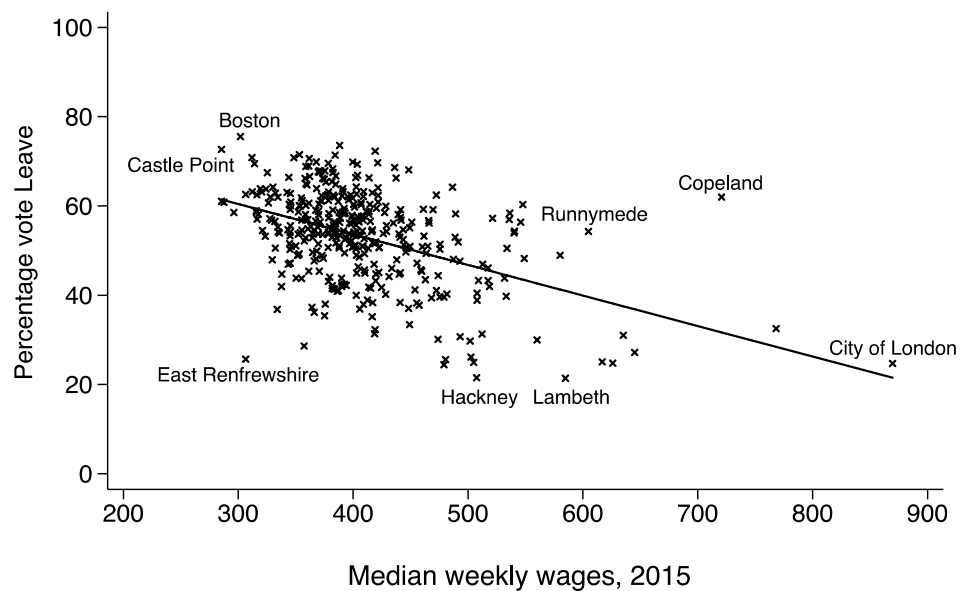
Wage inequality and voting patterns

Figure 1 shows the first of these, plotting the percentage voting Leave in the referendum against the median weekly wage in local authorities in England, Scotland and Wales.

The pattern shown by the figure is not surprising, but it makes it evident that areas with relatively low median wages were substantially more likely to vote to Leave. A negative pattern also arises for wage growth since 1997 – real wages fell over this time in 62 out of 370 local authorities. It is evident that, in general, worsening economic conditions for workers have proven important in shaping moves in voting behaviour away from

the main political parties for quite some time, and very markedly in the Leave vote in the referendum.

Figure 1 Brexit and median wages in local authorities in England, Wales, and Scotland



Notes: Median weekly wages at local authority level from the Annual Survey of Hours and Earnings.

Implications of Brexit for wage inequality

Given the referendum outcome, what are the likely implications for wages in the future?

- In the short run, the slowdown in growth is likely to put downward pressure on wages.
- The another, longer-term factor will be the negative trade shock from leaving the union – as highlighted in the pre-referendum economic research (e.g. Dhingra et al. 2016).
- Finally, reduced migration and capital flows are likely to impact the structure of wages.

We start with the trade shock.

The trade shock is likely to hit wages and income hardest in the places where globalisation has already had an impact, namely, the manufacturing sectors. These sectors have been losing out because of cheaper imports, especially from China (Bloom et al. 2016) and this suggests that they are especially vulnerable to trade shocks. There is, however, a ray of hope for manufacturing exporters that stems from the competitiveness-enhancing impact of sterling's lower value. On balance, however, it does seem that the old industrial heartlands – who ironically voted for the most part for Brexit – will be where downward pressures may well be more pronounced.

Reductions in migration, if they do occur, are likely to manifest themselves in at least two ways. First, there is the question of EU students attending universities. Reductions in these numbers may well have ramifications for the future supply of graduates entering the labour market. Second, at the bottom end of the labour market the UK has been increasingly reliant over time – especially since the EU's eastern enlargement in 2004 – on migrant workers to perform minimum wage jobs. If this supply falls, then there may be pressure to raise the national minimum wage.

The City of London's finance operations are also likely to face a negative shock. It seems unlikely that our EU partners will grant full access to the Single Market without the UK agreeing to completely free movement of labour. Since this has seemingly already been ruled out by the UK government, there is likely to be a trade-off between access and labour mobility. The ability of financial services firms to passport their services across the EU will surely be at least partially removed. This is likely to reduce employment in finance, particularly in London. While this may entail costs to the economy and tax base, it might well reduce income inequality given how dominant the City is at the very top end of the income scale (Bell and Van Reenen 2013).

Concluding remarks

Both the structure of wages and the strength/weakness of wage growth will likely change in response to the UK leaving the EU. Here we have identified some factors that may exacerbate already existing wage inequalities, and some that may reduce them. What is clear is that the labour market will need to learn to operate in a different way than previously in response to Brexit, and that the consequences of this adaptation will

alter the structure of wages in ways that will need to be carefully monitored and studied in due course.

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14 Brexit and the UK labour market

Barbara Petrongolo

Queen Mary University, CEP and CEPR

Immigration was at the heart of the Brexit debate. This chapter argues that at the aggregate level, immigration has a positive impact on net fiscal receipts without hurting the labour market prospects of natives, although it can result in problems for some local workers and also for pre-existing immigrants. If the UK introduces a visa system for EU immigrants similar to that currently in place for non-EU immigrants, there is little evidence to suggest that one should expect improved prospects for UK-born workers.

EU membership impacts the UK labour market directly, via free movement of labour and the contribution of migration to UK GDP, the fiscal budget and productivity. It also impacts the UK labour market indirectly, via the effects of trade flows and foreign direct investment on aggregate economic activity, and – well before this is bound to take place – via uncertainty about future economic and political scenarios.

The first-order effect of Brexit on UK labour markets relates to increased uncertainty. There have been clear signals of a hiring freeze shortly after the outcome of the vote became known. In the week after the referendum, there was a nearly 50% drop in online job adverts (from nearly 1.5 million to about 800,000).¹ This drop is far outside normal fluctuations in online adverts, which are typically in the range of 5-10%. According to the Confederation of British Industry, business confidence has fallen to a record low since the peak of the financial crisis in 2009, and the first survey of the UK private sector² carried out since the referendum has shown signs of the sharpest downturn in business activity since 2009, especially in the service sector.

1 Data from CEB (www.cebglobal.com).

2 Purchasing Managers Index.

The trade-off: Free trade or controlled immigration

In the medium run, further effects of Brexit on jobs and wages will be determined by the deals that will be negotiated between the UK and other countries on international trade and the movement of labour. The key trade-off being debated is between free trade and control of the movement of labour, albeit with some nuances in between. If the UK intends to remain a member of the European Economic Area (EEA) and access the Single Market, it seems that it will have to accept free movement of labour to and from the EU, as other countries in the European Free Trade Area do. Only by accepting weaker trade relationships, with higher transaction costs, would the UK potentially be able to retain border controls on EU immigration in a similar manner to the way non-EU immigration is restricted.

The potential cost to trade and GDP

Most economists would argue that there is not much of a trade-off involved in this choice. The EU is the UK's largest trade partner, and losing access to the Single Market would inevitably damage the UK economy. Dhingra et al. (2016a) calculate that, in an optimistic scenario in which the UK remains a member of the EEA, it would suffer a 1.3% decline in GDP per head, mostly resulting from the impact of non-tariff trade barriers on trade flows. However, in the pessimistic scenario in which the UK exits the EEA and trade between the UK and the EU is governed by WTO rules, the higher increase in trade costs would induce a fall in GDP per head of about 2.6%. To be added to this is the resulting fall in foreign direct investment, which is estimated to produce an even stronger decline in UK GDP than the increase in trade costs (Dhingra et al. 2016b).

Will UK-born workers see any improvement in their job prospects or wages?

Is it economically worthwhile to bear these costs in order to be able to retain control over migration from the EU? Immigration from the EU has represented the bulk of the recent growth in the share of the foreign-born population in the UK, especially

after the EU enlargement of 2004, and EU nationals have entered all sectors of the UK economy to varying degrees. In the past 20 years, the share of EU nationals in the working age population has grown from 1.8% to 6.3%. EU migrants are on average younger, more educated, and more likely to be in work than the UK-born population. To give an example, in 2015, the employment-to-population ratio was 72.5% among the UK-born, 78.2% among all EU migrants, and 81.9% among Eastern EU migrants.³

There is a rich body of work studying the impact of foreign migration into the UK, and typically failing to detect negative effects on the labour market prospects of natives. Wadsworth et al. (2016) reach similar conclusions about recent EU migration in particular. Much of the rise in EU migration has taken place at a time when the unemployment rate for the UK-born population was rising and their real wages were falling – that is, during the Great Recession. But migration from the EU kept rising after the end of the recession while the unemployment rate of the UK-born population was falling back to pre-Crisis levels and their real wages had started to grow, implying little or no correlation between immigration and the labour market prospects of natives for the economy as a whole.

Such aggregate trends may, in principle, be compatible with a situation in which certain groups of natives do indeed lose out, especially in local areas that have attracted higher numbers of immigrants. But a more disaggregated analysis shows that labour markets with a greater increase in EU migrants have not experienced any greater increase in UK-born unemployment or deeper fall in their wages, even among the less skilled. These patterns confirm previous findings that foreign migration has not negatively impacted employment or the wages of natives. However, one group that does seem to suffer from the arrival of new migrants is the stock of pre-existing immigrants (Manacorda et al. 2011). A plausible explanation is that, while the UK-born and the new immigrants are far from perfect substitutes in the labour market, new immigrants have skills and expertise that are better substitutes to those of earlier migrant cohorts.

Another point to note is that EU migration contributes positively to the UK fiscal budget (Dustmann and Frattini 2014). This is perhaps not surprising given that EU migrants are

3 Data are from Wadsworth et al. (2016).

on average younger and more likely to be in work than UK natives, and thus tend to pay more in taxes than they receive in benefits.

If the implementation of Brexit introduces restrictions to EU migration in a similar way to the visa scheme currently in place for immigrants from outside the EU, the key decisions to take will be whether and by how much to expand the current quotas, and which skills to target. The effects of cuts in EU migration will mostly be noticed in sectors and professions in which migrants tend to concentrate, typically towards the bottom of the job ladder (in low-tech manufacturing jobs, hotels and restaurants, and private households) and its top (for example, in higher education and in finance). Whatever the adjustment in these sectors, there is little evidence to date that one may expect better prospects for UK-born workers.

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Scotland and Northern Ireland

15 Brexit – a view from north of the border

Ian Wooton

University of Strathclyde and CEPR

Citizens of the UK voted to leave the EU, but voters in Scotland and Northern Ireland expressed a strong wish to remain. Taking a trade perspective, this chapter argues that resolving border issues will be central to finding a Brexit outcome that preserves the UK in its present form. Continued membership of the EEA — with Scotland either a part of the same country or a fellow, independent member — would be the best outcome for the UK.

Full disclosure: I am a Scottish, international economist with a career-long interest in preferential trading agreements (PTAs). As the Brexit vote has thrown up a PTA conundrum of unprecedented complexity for both the UK and Scotland, I feel duty bound to weigh in on what should come next.

The result of the referendum seems to have little to do with the economic benefits or otherwise of EU membership. They seem to have been driven more by issues of sovereignty and a negative reaction to the Westminster ‘establishment’. Nonetheless, the implications of the UK’s trading relationships post-Brexit are important. A central issue is whether ideology or pragmatism will emerge triumphant from the negotiations that will soon begin between the UK Government and the EU.

The vote

The result of the overall vote was clear, with a majority (51.9%) of those who voted choosing to ‘Leave’ the EU. But north of the borders in the British Isles there was a very different outcome — voters both in Scotland and in Northern Ireland expressed a strong wish to ‘Remain’ in the EU, with majorities of 62% and over 55%, respectively.

Finding an outcome that simultaneously respects the collective wishes of the British people, while addressing the concerns of the citizens in Scotland and Northern Ireland in order to preserve the United Kingdom, will be difficult. A dialogue has already been opened between the new prime minister of the UK and Scotland's first minister. Prime Minister May has indicated that she does not intend to trigger Article 50 until she believes that there is a UK-wide approach and objectives for negotiation. On her part, Ms Sturgeon has established a commission to investigate Scotland's options in light of the vote to Leave.

The border issues are critical

I shall argue that resolving border issues will be central to finding a Brexit outcome that preserves the UK in its present form. As it turns out, the economic issue is not whether the UK is or is not a member of the EU. It is whether it remains part of the Single Market as a member of the European Economic Area (the so-called Norway option) or otherwise.

While the EU has evolved in non-economic dimensions, at its heart remain the four freedoms enshrined in the Treaty of Rome ensuring free movement of goods, capital, services, and people. The Single Market encompasses all four of these elements and I would be very surprised if European negotiators would be willing to give the UK free access to some markets (e.g. goods and services) and not others (e.g. workers). Therefore, for the remainder of this chapter, I shall assume that for any agreement with the EU over these freedoms, the UK will have to accept all four or get none.

In my opinion, the best outcome for the UK (short of ignoring the outcome of the referendum and remaining in the EU) is what is frequently referred to as the 'Norway option'. This would involve an application to re-join the EFTA, of which the UK was one of the founding members before leaving to join the European Economic Community in 1973.

Why do I argue in favour of this? Quite simply, any other form of trading relationship with Europe would be costly economically and create political problems that would put further pressure on the integrity of the UK. Labour migration is a major element of this

and is the reason why I cannot envision a free trade agreement in goods and services as being a satisfactory solution (even when we ignore the enormous costs of negotiating and implementing free-trade agreements).

Were the UK to apply and be accepted as a member of EEA, it would retain full access to its largest trading market. In many respects, from an economic perspective, it would be business as usual. There would also be some repatriation of powers from the EU, the most significant of which might be with respect to agriculture and fisheries where the UK would no longer be part of the Common Agricultural Policy and would also regain control over its 200-mile fishing limit. Indeed, the Norwegian people narrowly rejected membership of the EU over concerns regarding their sovereignty over agriculture and fisheries. However, from the UK's perspective, Westminster might not be the beneficiary of this greater autonomy. As these are not reserved powers, the default position will be that responsibility for these aspects of the economy falls to the devolved governments.

Would Britain exiting to the EEA satisfy Brexiteers? If, in the words of the prime minister, "Brexit means Brexit", would this perceived increase in autonomy would be enough to satisfy those opposed to the EU? I don't know, especially as membership of the EEA would involve both direct financial costs and continued acceptance of free migration. In addition, as a non-member of the EU, the UK would be unable to vote on issues of the Single Market, including many of the rules and regulations that drew the ire of those in favour of Brexit. Leave campaigners argued that the UK had little influence on the evolution of the Single Market, so little would change if the UK were not in the room to vote. Fundamentally, the UK Government (with its sole Scottish Member of Parliament) has to weigh up the benefits of continued free trade with Europe and the desire to regulate immigration of Europeans.

The EEA/Norway option is the least bad outcome for Scotland and Northern Ireland

My contribution to this discussion focuses on the impact of this decision on the people in the devolved administrations of the UK who voted strongly to remain in the EU. My argument is that the Norway option of EFTA membership is the least-bad outcome for

Scotland and Northern Ireland and is the UK government's best hope to retain a United Kingdom.

- First of all, continued membership of the EEA would resolve the potentially explosive issue of a re-introduction of border controls between the Irish Republic and Northern Ireland.

An outcome that restricted trade or factor movements would require border controls with passport checks, in order to prevent the Irish border being an open door to immigration from the EU into the UK. Any form of trade relationship short of continued membership of the Single Market could jeopardise the relationship between Northern Ireland, the Republic of Ireland, and the rest of the UK.

- Similar concerns arise with respect to the border between Scotland and England, although issues are less-potentially catastrophic in their consequences.

Scotland's first minister has indicated that the Scottish Government will explore every option to retain Scotland's status in the EU, including a further referendum on Scottish independence early in 2017, if necessary. Given the strength of support in Scotland for the EU revealed in the Brexit referendum and taking into account that the franchise for an independence referendum includes younger voters (16 and 17 year olds) who seem to be more pro-European, the outcome of the last independence referendum may be reversed. Indeed, a series of opinion polls since the Brexit vote have put the 'Yes' side in the lead.

Scottish independence would pose its own set of problems

Independence would however, throw up its own complex issues of trade and border arrangements. Whether an independent Scotland achieved immediate membership of the EU or initially joined EFTA, it would still be part of the Single Market. If the rest of the UK's response to Brexit was anything less than being part of the EEA, a border would have to be established between North and South Britain both to monitor the flow of goods and to restrict the movement of workers between the two countries.

It might be argued that fear of a future border with England might convince Scottish voters to remain with the union, particularly given the deep economic linkages between Scotland and the UK. However, fear over the loss of membership in the EU seems to have been a decisive factor for some voters in the last independence referendum. This has now been turned on its head. A future independence referendum might now give Scottish voters the option of either Europe or the UK. As many of us in Scotland identify as being ‘European’ ahead of being ‘British’, it would be a risky strategy for anyone in favour of the union to give voters such a stark choice.

Concluding remarks

In light of this, a Brexit agreement ensuring continued membership of the EEA would give the UK the best outcome, regardless of whether Scotland remains part of the same country or becomes a fellow, independent member of the Single Market.

All of this suggests that the negotiations with the EU on post-Brexit trading arrangements will not be straightforward. Unfortunately, as was the case in the Brexit referendum itself, the final outcome is more likely to be determined by politics than economics. However, it will be the economic details of the deal that will have the biggest impact on standards of living in the UK. Resolving the complex issues around trade agreements will not only determine the future economic performance of these islands, but will have a major bearing on the prospects for the continued survival of the UK itself.

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Ian Wooton is Professor of Economics and Vice-Dean (Research) in Strathclyde Business School at the University of Strathclyde in Glasgow. He previously was the Bonar-Macfie Professor at the University of Glasgow and an Associate Professor at the University of Western Ontario, Canada. He studied at the University of St Andrews and Columbia University, from which he received his PhD in 1982. He has held visiting positions at leading research institutions around the world and has served as a consultant to a number of governmental and international agencies including the World Bank and UK Treasury. He is a Research Fellow of the Centre for Economic Policy Research, London

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16 Ireland and Brexit

John Fitzgerald and Patrick Honohan

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As the Irish economy is deeply integrated with the UK's economy, Brexit poses especially severe challenges for Ireland. This chapter considers a future in which the legal basis for the UK's economic relations with the EU, and hence with Ireland, is thrown into doubt. A UK withdrawal from the Single Market would raise questions relating to trade 're-diversion', foreign direct investment, the Irish peace agreement, and assured access to British natural gas supplies.

Ireland is the remaining EU country most exposed to Brexit. When Britain decided to join the EEC in 1973, it was a foregone conclusion that Ireland would follow. But Ireland's ancient continental links were relevant, and those links were consolidated over the following half century to the point where Brexit has scarcely awoken any interest for Ireland to consider following suit.

Instead, the concern in Ireland is about the consequences of a future in which the legal basis for the UK's economic relations with the EU – and hence with Ireland – is thrown into doubt.

Economic links between Ireland and the UK have declined over the past decades, but this should not be exaggerated.

- On the eve of the WWII almost 94% of Irish exports went to the UK (and still almost 75% 50 years ago);
- Today, the UK's share of Irish exports is less than 15%.

In considering these figures, however, account needs to be taken of the high import content of much of Ireland's other trade. That is, the local content of Ireland's exports to the UK is relatively high. If fully weighted by employment content, the UK share would

be closer to a quarter. Half of Ireland’s agricultural exports still go to the UK, and it is the biggest customer for the rapidly growing export of services. The three remaining Irish headquartered banks continue to have a sizable loan book in the UK.

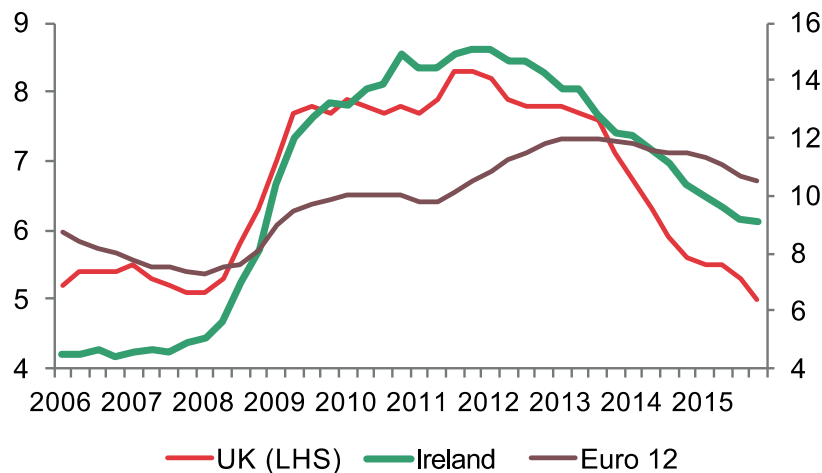
The UK’s share of Ireland’s imports has held up better than exports, especially when it comes to consumer goods. The value of imports coming from the UK in recent years has still been almost the same as from the rest of the EU put together.

Another striking fact is that, for those Irish companies that have expanded abroad, the UK is the dominant destination. Almost one in three of the workers these firms employ abroad are located in the UK.

While the US is more important in certain fields – notably as a source of inward direct investment – and while the rest of the EU *as a whole* has overtaken the UK, by any overall reckoning, the UK is still the largest single economic partner of Ireland.

And the close integration of the labour market on both sides of the Irish Sea has represented an important safety valve for the Irish economy in the recent downturn. The relatively rapid reduction in the rate of unemployment from over 15% in 2012 to under 8% today owes something to job growth in the UK. This is illustrated by the manner in which the dynamics of unemployment in Ireland have tracked those of the UK much more closely than the Eurozone (Figure 1).

Figure 1 Unemployment rates: Ireland and UK



The impact all depends upon the UK's new relationship with the EU

It is of course hard to tell how much will change in this relationship as a result of Brexit. If Britain were to retain access to the Single Market, continuation of the long-standing pre-EEC freedom of movement for Irish citizens in the UK would mean little change.

If the UK were to withdraw from the Single Market, though, there could be sizable impacts in terms of a redirection of trade, or what might be called 'trade re-diversion'.¹ This has two sides to it: redirection of exports, and redirection of imports.

On the export side, agriculture is the obvious focus. Given the high level of EU protection on its agriculture, extra-EU producers currently face sizable EU tariff barriers – including on some of the products that Ireland exports. While the UK is inside the EU, such barriers provide a preference for Irish goods that will disappear when the UK leaves. Under such circumstances (and even if Britain were to adopt a policy of unilateral free trade), some of Ireland's agricultural produce would be diverted into the remainder of the EU, presumably implying some price falls (Matthews 2015).

It is the smaller, locally owned Irish firms that would be most impacted by trade re-diversion from the introduction of tariffs by Britain, which has traditionally been the first overseas market for expanding small firms in Ireland. Breaking into that market is greatly facilitated by a common language and similar legal systems. But if it entailed administrative and tariff barriers to such trade, Brexit would make the initial step of expanding beyond the Irish market more difficult.

Will banks relocate to Ireland?

The preference logic, however, runs in the opposite direction for other sectors. If UK-based firms face new barriers outside the EU, some re-diversion would arise that favours the replacement of UK providers with Irish ones. The most-discussed sector in which

¹ ESRI (2015) suggests that merchandise exports to the UK could fall by as much as 20% in this scenario, presumably entailing diversion of quantities to other markets at lower net prices..

this might occur is financial services, reflecting Ireland's already sizable market share in sectors such as fund management and the similarity between Ireland's legal system and the UK's. The scale of net benefit to Ireland from any diversion in this sector remains to be seen; the value-added retained in Ireland from some export services has been strikingly low. The Irish regulatory authorities will doubtless maintain their current alert supervision of regulated financial services, mindful of previous failures.

This form of trade re-diversion would probably entail multinational firms repositioning their European headquarters to Ireland from the UK. To the extent that firms shift some staff to Dublin, upward pressure in the short-term on commercial and residential property prices could be expected; remaining excess supply of property is found only outside the capital. Such pressures would be eased by infrastructural investment.

Impact on inward FDI

The net impact of Brexit on inward foreign direct investment to Ireland will depend upon many factors. For example, if the UK does try to forestall declining investment by lowering corporate profits tax, this would surely have an effect on Ireland's market share (Davies et al. 2016).

The sizable retail market share of UK firms such as Tesco and Marks & Spencer highlights the likely impact on this sector from the application of the EU's common external tariff. Diversion of some of this demand to higher cost sourcing will mean permanently higher consumer prices, an effect which would be exacerbated if some of the UK firms were to withdraw from the market, thus reducing competition.

Logistical challenges and natural gas vulnerabilities

Well over half of the tonnage of goods that are shipped from Irish and EU ports travel via the UK. Thus, logistical obstacles to the flow through the UK of merchandise trade between Ireland and the remainder of the EU will add costs, albeit presumably of second-order importance.

Additional vulnerability comes from the fact that, at present, Ireland's only physical international electricity and gas interconnections are with the UK (ESRI 2015). Other regions of the EU, such as Finland and Lithuania, trade electricity freely with Russia so that Brexit is unlikely to prevent trade in electricity. But Ireland would no longer benefit from EU requirements for the UK to share its supplies in the event of a major disruption to EU gas supplies, a consideration of some significance given the high dependence of the Irish electricity system on gas.

Land borders on the Irish island

There is universal reluctance to see the reintroduction of physical border controls on the island of Ireland. Their absence is an important symbol of the success of the peace process encapsulated in the Good Friday Agreement of 1998, and this is a consideration that must not be downplayed in designing the new arrangements for controlling the movement of goods and persons (Todd 2016). It should not be beyond the capacity of modern technology to design immigration control and customs mechanisms that do not have to rely on physical border controls on the island.²

Concluding remarks

Ireland is one of the most globalised economies in the world. While a changed environment for the relations with its most important economic partner would be a setback – and official and private forecasters are already shaving half a percentage point off their growth forecasts for the coming year – it should not blunt Ireland's strategic potential. Nevertheless, negotiators will need to pay close attention to the detailed design of the Brexit regime to ensure that unnecessary collateral damage is not done to a connexion which, for good or ill, has persisted for centuries.

² For many years the level of cross-border trade within the island has been well below what would be predicted from a gravity model.

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Issues for the EU

17 A month after the Brexit vote: More turmoil to come

Thorsten Beck

Cass Business School and CEPR

A month after British voters chose to leave the EU, academics and policymakers are still coming to terms with a decision most did not expect. This chapter argues that beyond the negative repercussions of the uncertainty about the consequences of Brexit, several long-term issues can be discerned, including the role of government in modern market economies, the realignment of political preferences and parties, and the role of financial sectors in modern economies. Most importantly, the Brexit vote underlines yet again the urgent need to address legacy problems in the Eurozone and strengthen the single currency governance structure further.

A month after the British voted in favour of leaving the EU, academics and policymakers are still scratching their heads, coming to terms with a decision they did not really expect (including many ‘Leave’ campaigners themselves). Experts – previously dismissed as people “the country has had enough of” – are now being asked to predict the future path for the UK (and its four countries), the EU, and the world economy in general. Looking beyond the date the UK will exit the EU is hard, given that the actual outcome is still uncertain.

Options ranging from staying in the Single Market, to special arrangements just short of membership of the Single Market, to a clean break with the EU are being discussed, and one can be sure that additional options will be designed, floated, and mostly dismissed in the coming years. The positions of Scotland and Northern Ireland, which voted to remain in the EU and – while not having a formal right of veto – have certain political power to influence the process, complicate things further.

There is one prediction that is easy to make: this uncertainty will undermine growth both in the UK and in the EU, as predicted by the experts (e.g. IMF 2016). All indications point to a slowdown, if not a recession, in the UK. And it might be a prolonged growth slowdown if the uncertainty continues. This lower growth will certainly make promises by the Leave campaign all but impossible to deliver.

Trends highlighted by the Brexit vote

Beyond this high uncertainty, one can identify a couple of trends illustrated by the Brexit vote or triggered by it.

- First, exiting the EU will certainly trigger a new economic policy discussion in the UK about the role of the government in economic policy.

Just take the example of Tata Steel, for whose survival government support is being discussed extensively. EU rules on state aid put certain restrictions on the UK government, which might fall aside after the Brexit. There is an increasing interest in developing industrial policies, partly driven by the diverging economic trends across geographic areas of the UK. On the other hand, Leave campaigners have suggested getting rid of red tape and unnecessary regulation “forced upon” the UK by the Brussels bureaucracy. As pointed out before, some of this red tape is very much homemade, while being a member of the EU has not prevented the UK from offering one of the most market-friendly business environments in Europe. Importantly, the devil is in the fine print – many of these regulations are part of national legislation, implying a decade-long challenge for UK government officials and MPs.

- Second, the political landscape is in for some further turmoil.

The internal conflict in the Conservative Party seems to have been resolved for the moment by the side-lining of the major players on both sides of the Brexit debate. Labour, however, is in open warfare. Having lost their Scottish strongholds and under threat from UKIP in large parts of England, a fight for the ideological soul of the party is putting the party’s unity at risk. More generally, a realignment of political preferences into what can be caricatured as globalist and nativist camps will certainly keep the political scene in flux during the next years, if not decades.

- Third, concerning the future of London as financial centre, it seems almost inevitable that some activities and jobs in the sector will leave the capital, though it would be a bit far-fetched to announce the end of London as financial centre.

But maybe a shift in focus in London and in the UK in general away from being a financial centre for Europe and the rest of the world towards domestic financial intermediation is not such a bad thing. In the short run this might reduce growth even further, but in the long run it might provide a more balanced and stable growth path (Beck et al. 2013).

It's not just Britain

Many of these trends are mirrored on the other side of the Channel. The uncertainty over the future relationship with the UK has negative economic implications. More importantly, however, it has brought to the forefront the need to address underlying weaknesses in the financial and real sectors of the Eurozone (Resiliency Authors 2016). The renewed trouble in the Italian banking sector shows the urgent need to address legacy problems, whose resolution has been delayed over the past decade.

Longer-term trends in the EU also mirror some of the trends in the UK. For example, Brexit heightens the need for a thorough debate on the future structure of the EU and the Eurozone. Squaring the political call for more national sovereignty and grassroots democratic participation with the need to complete the Eurozone governance structure will require almost miraculous political leadership skills.

There is also the question of whether the EU will tend towards more interventionist policies, now that a prominent voice for market-friendly policies is missing. At a broader level, with the substantial loss in economic weight for non-euro countries, the question of a two-tier EU – with a core Eurozone and ‘periphery’ non-Eurozone countries that are part of the Common Market and EU political decision process, but with no ambition to join the euro in the near future – becomes even more pressing,

Political turmoil is another issue that find a correspondent in nations to the east of Britain. Across Europe we can observe political upheaval, with anti-globalist and nativist parties from both the left and the right gaining strength. This will make the

necessary strengthening of the Eurozone even more difficult and might even push it into renewed fragility. Similar strains are also plain in the US, where the previously globalist and market-oriented Republican Party has been taken over by a nativist politician who seems more focused on deals than arm's-length markets.

Another initiative impacted by Brexit is the Capital Market Union. In terms of financial sector policies, one could argue that the union will be lower on the policy agenda given the vast political capital that will be expended on negotiating the UK-EU divorce arrangements. As the UK – with its market-based financial system – will be leaving the EU, the direction of travel on Capital Market Union may change. Counterbalancing this, however, is the possibility that there may now be greater consensus for stronger and more unified regulation and supervision of the non-bank components of the financial system. Whether this really fosters capital markets remains to be seen.

Regulatory divergence for the banking sector seems to be less of a concern, given that major regulatory reforms after the Global Crisis have been initiated on the global rather than European level, including the Basel III accord. In addition, UK banks that want to continue to be active across Europe will still have to comply with EU law. The EU will also put pressure on the UK not to adopt regulation that is too 'light touch' and might result in negative externalities for European host countries of London-headquartered banks. However, Brexit will certainly make cross-border regulatory cooperation more difficult, with one major player – the Bank of England – being outside the EU institutional framework.

Finally, there are the broader implications of the vote for international trade and cooperation and the global governance structure.

Trade and global governance

One can interpret the Brexit vote as yet another sign that a long wave of globalisation is coming to an end, with political trends to limit both immigration and further trade integration being reinforced by distributional fights resulting from the past decade of low growth and the expectation of another lost European decade. The demographic challenges across Europe exacerbate these distributional conflicts further.

More generally, the Brexit vote crystallises the increasing distrust of large parts of the populations in Europe and North America of the global elite, if not the modern globalised market economy. This also poses challenges for economists. While there is a broad consensus that globalisation has brought many benefits and made nations richer, there has been a recent shift in focus away from growth to distributional effects. The Brexit vote shows that beyond general income distribution effects, more specific distribution effects have to be considered – across age groups, geographical regions, but also cultural and ethnic communities. It also shows that this debate is indeed not only about monetary gains and losses.

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18 The EU must adapt to survive

Charles Wyplosz

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The vote for Brexit is not just a British matter and it provides a unique opportunity to usher in useful reforms of the EU. At the heart of the matter is the assignment of competences between the centre and member states, and the question of whether the EU is 'close enough' for the time being. A simultaneous bidirectional change of competences should be implemented in such a way that each country gives and takes, so that it is both politically acceptable and economically efficient.

The vote on Brexit is a major turning point. Beyond the question of what happens next with British membership – not a foregone conclusion – this event can usher in useful reforms of the EU, or it can be squandered. The biggest mistake would be to interpret it as a purely British issue. It is also an EU issue.

Indeed, the British voters are not the only ones who feel that the EU is not functioning properly. How could it? It is a uniquely innovative case of deep economic integration, which has brought peace and prosperity to the continent for several generations now. Innovation, however, inevitably entails some errors. In order to be successful, these errors must be recognised and accepted, and then fixed. Some of this has been done, of course, but much remains not recognised, or only partially recognised. Obviously, some long-held beliefs need to be questioned, which cannot be easy.

Euroscepticism and globalisation

Euroscepticism has been on the rise for quite a while. It is conflated with mounting opposition to globalisation and has been fuelled dramatically by the immigration crisis. Europe is not alone, as illustrated by the Trump phenomenon. Many US voters want to recover what they perceive as a loss of sovereignty from unspecified global forces. In

Europe, it is much easier to identify a villain. Breaking this trend is now a major goal. It could be Brexit's silver lining.

The EU's imperfections have been known for a long time, but they were studiously ignored. Beyond their tendency to use the EU as a scapegoat for policies that they support in Brussels, most governments are mesmerised at the mere thought of upsetting a construction that is the unsteady outcome of years of difficult compromises. At the heart of this failure is the concept of *acquis communautaire*, the view that previous integrative steps cannot be undone. Yet, there is nothing sacrosanct about past agreements.

An open-minded review of what the EU does

Ideally, the EU should conduct an open-minded and critical review of what it does and how it does it, and draw the conclusions. For instance, about 40% of the EU budget is dedicated to the Common Agricultural Policy, and another 40% is spent on regional policies (EU 2016). Both programmes are known to be largely ineffective.¹

However, in each case, there is a coalition of member states that are firmly opposed to any serious reform, so it will not happen. As it turns out, while these programmes give Europe a bad name – they amount to what Americans call pork barrel politics – they are not on the hit list of today's Eurosceptics. Virulent anti-Europe sentiment is mostly fuelled by sovereignty transfers.

The assignment of competences between the centre and member states is the heart of the EU construction. They are the *acquis communautaire*. How do we know whether the current assignments are correct? The answer is provided by the large literature on fiscal federalism (e.g. Oates 1972, Wildasin 1996). This literature does not seem to have inspired the European integration process. Instead, integration has been driven by political opportunities and by the mythical aim of an “ever closer union” enshrined in the seminal Treaty of Rome.

¹ On the Cohesion Funds, see e.g. Boldrin and Canova (2001); on the CAP, see the collection of essays in Swinnen (2015).

The EU's achievements have been immense, but there always has been an implicit understanding that there would come a time when the question of "Are we there yet?" would arise. The current political fermentation, partly generated by the Global Crisis, suggests that it is time for a pause and a clean-up.

Fiscal federalism and subsidiarity

Fiscal federalism develops criteria for the centralisation of functions or resources (increasing returns, externalities) and for their decentralisation (information asymmetries and heterogeneous preferences). This framework, describe in Baldwin and Wyplosz (2015), is well adapted to determining the assignment of competences between the EU and its member states. There are clear-cut cases. For example, the framework suggests that the Single Market should be an area of common interest, while labour markets or taxation should remain a national competence. In most cases, however, the criteria reveal the existence of trade-offs. In such cases, the subsidiarity principle argues for decentralisation.

An evaluation of existing assignments based on fiscal federal principles is likely to indicate that the EU architecture occasionally conforms with these principles, but not always (Alesina et al. 2005, Hallerberg et al. 2009, Wyplosz 2015). Some competences are centralised when they should remain at the national level. Others are in the national domain when they could fruitfully be centralised. It is among the former cases that we can find many sources of anti-European sentiment, while the latter have created the impression that the EU is unable to deal with problems as they arise.

Free movement of people

A particularly delicate issue is the freedom of movement of people within the EU. It was a central issue in the Brexit campaign and it is a key component of the backlash against immigration from outside the EU. For highly qualified professionals – like me – and many corporations, it is a dream come true. But, it turns out that a majority of voters see it as a threat to their jobs and incomes.

We know that the issue is complicated, because it combines substitutions and complementarities, and because, as with the impacts of trade opening, the general equilibrium effects are different from perceived partial equilibrium effects. The issue is too complex to persuade voters who focus on their own direct interests, especially since the losers have not been adequately compensated.

Immigration issues are perfectly symbolic of the dilemma that policymakers face: should we jettison a major icon of European integration, or take the risk of breaking the EU?

The sensible response would seem to adjust the freedom of movement of people but this would represent a 180° move away from an ever closer union. It is really about cutting off the left arm to preserve the right arm (or the converse, for left-handed people). It is also a very divisive issue, since some EU members have net emigration while others have net immigration.

Some Eastern European countries are staunchly against any restriction while some Western European voters are particularly worried about the famed Polish plumber. Such a drastic step will only be taken when policymakers are desperate, which may be too late (and too little).

Other difficult policy areas

Many other issues fall into the same category. Fortunately, they are more modest, yet no less controversial. Examples include the myriad of norms and regulations deemed necessary to uphold the Single Market (the shape of bananas made the rounds during the Brexit campaign), health and safety and the environment (as seen with the recent row over glyphosate), diplomacy (the way to respond to Russia comes to mind) and the labour markets. In each case, local preferences profoundly differ from one country to another, which argues for decentralisation and explains voters' irritation. Decentralising already centralised competences, however, is giving up on some *acquis communautaire*.

On the other hand, according to fiscal federalism principles, some functions deserve to be centralised because large externalities or increasing returns trump modest preference heterogeneities or asymmetric information. An example is the Banking Union, yet to

be completed with adequate resolution funding, currently held out by one country's own pork barrel politics. Another example is R&D funding, which should not be very controversial.

Concluding remarks: Rethinking the subsidiarity and EU's competencies

The best that can be done is to implement simultaneously the bidirectional change of competences. It can be done in such a way that each country gives and takes, so that it is politically acceptable. Piecemeal reassignments, on the other hand, are likely to absorb massive political capital and either fail or result in compromises that, once again, fail to correspond to fiscal federalism principles. In that case, it is a safe bet that difficulties will bounce back sooner or later. In the current hostile climate, it is likely to be sooner. The worst would be new initiatives to centralise some functions, a brave attempt to 'relaunch Europe' just when many European voters are clamouring for less of it.

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19 How to prevent Brexit from damaging the EU

Paul De Grauwe

LSE and CEPR

The mandate of the new UK government, as stated by the new prime minister, is to “make a success of Brexit”. This chapter suggests that “success” for the UK should be interpreted as retaining access to the Single Market while gaining concessions on rights to control immigration, and argues against the EU agreeing to any such special deal. Signalling to other EU members that by exiting they can continue to enjoy the benefits of the union without the costs would fatally weaken the EU.

The UK has a new government under the leadership of Theresa May. The mandate of this new government, as the new prime minister has stated, is to “make a success of Brexit”. Although the details of what “success” means here is unclear, there can be no doubt about what it means to many people, including many in the government. It should be interpreted as keeping access to the EU Single Market while gaining concessions from the EU about the rights of the UK to control immigration. In other words, it means trying to square the circle – something the Brexit campaigners have led millions of British citizens to believe can be done easily.

In this chapter, I look at how the EU should negotiate with the UK – leaving it to the authors of the other chapters to consider the problem from the UK angle.

What negotiation strategy should the EU take?

In my view, the choice that should be presented to the UK is simple:

- The Norway model (a close version of); or
- The WTO model.

The EU should make it clear (or actually clearer, since several leading EU politicians have already said as much) that there is nothing between these two choices. There can be no special deal with the UK that trades a little less market access for a little more control over migration.

The Norway model

If the UK accepts the Norwegian model, it will retain full access to the Single Market. In that case, there would be no new obstacles for British goods, services, capital and people entering the EU, and vice versa. But, as is well known, this includes the free movement of EU citizens in and out of the UK, which is opposed by many people both within and outside of the British government.

My point is that without the free movement of people, there can be no free movement of services. This is the core of the Single Market. Moreover, the British will have to accept two other things in the Norwegian model. First, they will have to abide by the rules on standards, health and safety that are decided in Brussels without being involved directly in the decision-making process. Second, they will have to contribute to the European budget, albeit at a lower rate.

Although the acceptance of this model would probably be in the best interests of both the UK and the EU, it is very unlikely that the UK government will accept it.

Migration and the Brexit camp

The Brexit camp considers free migration and Brussels legislation as diabolical and has threatened to revolt if the UK government accepts these conditions. True, there is an important faction in the new government that is attached to maintaining full access to the Single Market and sees few problems in accepting free movement of people and Brussels regulation. At this point, however, one cannot know whether this faction is strong enough to counter the demands of Brexit supporters.

I assume, therefore, that the British government will reject the Norwegian model and will try to obtain concessions from the EU that reduce migration flows, while ensuring access to the Single Market.

Why cherry picking is not, and should not be, possible

To reiterate, I believe that the EU must make it clear that a special deal with the UK, allowing such cherry picking, is excluded. The EU must insist that the only other option for the UK is to stand on its own feet, and to start negotiating new trade deals with the EU and other countries in the framework of the WTO rules once Brexit is completed. In this non-Norway option, the UK should be treated like the US, China, or Brazil – i.e. sovereign nations that insist on maintaining full sovereignty over their trade agreements.

The problem is that the trade negotiations between the UK and the rest will take years, if not decades. Their outcome is uncertain. It is not clear, for example, whether the UK will be able to maintain free movement of services with the EU, as this freedom is intimately linked to the free movement of people.

The reasons for ruling out cherry picking by Britain are several. First, some other EU countries are also tempted to organise referendums. I have no problem in principle against such referendums. If citizens of a country dislike being member of a club, they should be able to leave. This would be better for all; there is no point in people who intensely dislike each other living together. However, it is in the interests of both parties that the terms of the divorce should be made clear in advance.

That is why the EU should make it clear what potential ‘exiters’ should expect. It will be either (some close version of) the Norwegian model, or a ‘standalone model’ in which the newly sovereign nations will face the difficult task of establishing new trade agreements in the framework of the WTO rules. Clarity is essential for those who consider leaving the EU. This clarity can only be achieved by excluding a privileged trade agreement with the UK.

Concluding remarks

When the UK joined the EU in 1973 its main strategy was to prevent the union from becoming too strong. The UK political elite decided that this could best be achieved from inside the union. Now that the UK is departing, the century-old British strategy remains the same, i.e. to weaken the forces that can make Europe stronger. The UK can achieve this by insisting on a special deal between the UK and the EU whereby the UK maintains the benefits of the union while not sharing in the costs. Such a deal, if it comes about, will signal to other member countries that by exiting they can continue to enjoy the benefits of the union without the costs. Such a prospect would fatally weaken the EU.

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Paul De Grauwe is Professor at the London School of Economics, having been professor at the University of Leuven, Belgium and a visiting scholar at the IMF, the Board of Governors of the Federal Reserve, and the Bank of Japan. He was a member of the Belgian parliament from 1991 to 2003. His research interests are international monetary relations, monetary integration, foreign-exchange markets, and open-economy macroeconomics. His books include *The Economics of Monetary Union* (OUP), *International Money. Post-war Trends and Theories* (OUP) and *The exchange rate in a behavioural finance framework* (PUP). He obtained his Ph.D from the Johns Hopkins University in 1974 and honoris causae of the University of Sankt Gallen (Switzerland), of the University of Turku (Finland), and the University of Genoa. He is a CEPR Research Fellow.

20 Science after Brexit

Paul Nightingale

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Research is an increasingly collaborative, international activity, where interactions across Europe are extremely strong. The vote for Brexit creates significant uncertainty about future UK participation in these collaborations. This chapter argues that given the widely recognised value to both the EU and the UK of collaborative research activities, both sides are likely to seek to retain extensive engagement.

Scientific research is an inherently collaborative, international activity where interactions between the UK and EU are extremely strong. Some 17% of research funding in UK universities comes from the EU. UK and EU scientific institutions benefit from a continuous flow of researchers moving between European countries, with roughly one in five STEM researchers in UK universities coming from the EU (Adams et al. 2016).

The extent of the collaboration between UK and European researchers is now so great that it is probably meaningless to talk about UK and European science as distinct things. Over half of scientific papers are collaborative across institutions, and many of those collaborations are transnational. Over 60% of UK transnational collaboratively authored papers are with EU-based co-authors (Adams et al. 2016). Importantly, the resulting publications tend to be more highly cited (which is an indicator that the papers are higher quality), with collaboration between UK and EU authors playing a significant role in driving improvements in UK scientific productivity.

Over its history, the EU has developed a number of important institutions to support this collaboration. The most important is the European Research Area (ERA), which provides funding for the highest quality fundamental research. UK scientists have been disproportionately successful in winning the most prestigious ERA grants. The UK lacks an equivalent funding scheme for this kind of research, which would be extremely costly to replicate. There is also the €80bn Horizon 2020 programme,

which absorbs some 8% of the EU budget and provides support for collaborative trans-European research. There are also a number of smaller, more specialised collaborative research activities. The vote for Brexit creates significant uncertainty about future UK participation in these collaborations.

Collaboration is important in science because knowledge production is highly specialised. Expanding the pool of researchers who can work together increases the potential for fruitful intellectual cross fertilisation, problem identification, and intellectual criticism. Knowledge production is also increasingly a high fixed-cost activity that depends on a widely distributed infrastructure of instrumentation, datasets, highly specialised skills and shared standards. Research becomes more economically efficient if these high costs can be spread. Once the high upfront costs of developing a dataset or a DNA library have been spent, it makes sense to exploit the resources as much as possible.

It is therefore unsurprising that research is an increasingly collaborative, international activity. Diana Hicks highlighted this change in the science system in the 1990s (Katz et al. 1995), and speculated that European collaborations in particular might be being enabled by low-cost air travel. This point is important because distance, and the ease of engagement, has an influence on scientific collaboration. As a rough approximation, collaborations halve as distance doubles. This implies that it is misleading to suggest that increased UK-US collaboration can easily displace UK-EU collaboration and achieve the same results. With scientific collaboration, as with international trade, distance matters.

Research also benefits from the movement of researchers. Scientific techniques have a significant tacit element and can rarely be transferred without face to face communication. Typically, they are diffused by researchers moving between laboratories. The free movement of people therefore helps diffuse scientific techniques and constraints on this movement could damage the pace at which scientific research advances.

The benefits of having the UK within the European research system, to both the UK and EU27, is obvious to both sides. Informal discussions with EU partners suggests there is a significant desire to keep the UK engaged as fully as possible. Without the UK, the EU would still be a scientific super-power, but a diminished one. Collaboration with

the UK would continue, but if they could not be funded using EU funding streams, the value of those funding streams would diminish. The European nations with the most advanced science systems, for example, might rethink the relative emphasis they place on EU research compared to alternatives that better enable engagement with the UK and US.

This potentially could have implications for EU innovation policy, which often has research and science at its core. If that research is diminished, then the EU's plans for innovation-driven growth look less convincing, particularly at a regional level. If economic policy is damaged because its innovation-led growth strategy is weaker, then the EU itself is damaged.

The value of the UK and EU27 continuing to collaborate extensively in the future should be clear. Both sides have strong incentives to minimise damage and ensure continuity during the negotiation period. There is a significant risk that negotiators do not recognise how easily the science system can be damaged. The continuing free movement of researchers will be essential to ensuring the future health of UK research. Even small disruptions over short periods can be sufficient to kill off avenues of research. Rebuilding research teams takes years.

Unfortunately, there is already evidence of UK researchers being dropped from Horizon 2020 bids. Currently this evidence is only anecdotal, and could just reflect EU researchers dropping collaborative partners and using Brexit as an excuse. However, these bids are very competitive and even a slight concern that a UK partner increases the risks that the bid will not be funded may have an influence. In the medium term, it will be important to pay attention to the flows of researchers, and particularly to see if the highest quality researchers, who have the most choice in where they go, decide not to go to the UK. Concerns about the legal rights of EU citizens in the UK may already be influencing those decisions about where to locate.

If the free movement of researchers in the UK is reduced, or even made more bureaucratic, then the costs might be significant. In my own institution – the Science Policy Research Unit at Sussex – EU nationals outnumber UK nationals and it would be impossible to replace them from the limited pool of UK talent. We are certainly not alone.

There is precedent for collaboration with countries that are outside the political structures of the EU. Switzerland, for example, engages extensively and successfully in European science. Obviously, it has to pay into the budget, and has a less powerful position in decision making, but the collaboration works to the benefit of everyone. However, the EU has used the removal of access to scientific programmes to punish Switzerland following a Swiss referendum on the free movement of people. There is concern that this would happen with the UK.

The UK and EU could use the disruption of Brexit as an opportunity. EU science would benefit if ERA programmes were extended and collaboration with the US and Asia were increased. New funding streams specifically focused on upgrading capability in the less advanced member states, who benefit less from the emphasis on research excellence, would be valuable. One lesson from Brexit is that there are significant numbers of people who do not feel they benefit from the EU and regard the EU as an elite project. Reaching out to those groups across Europe would be wise, and research could be better integrated with the broader skills agenda in the EU. Lastly, the UK was already undergoing a process of making its research more international, and this generates opportunities for mutually beneficial collaboration (BIS 2013). Changes to institutional structures could also be used to better evaluate the impact of research funding. Some large EU projects have not been run well and there is potential for reform. The EU and UK would both benefit from the mutual diffusion of expertise in research evaluation and research strategy.

In summary, scientific research is an area where UK-EU collaboration and cooperation has been extremely intensive and very beneficial to both sides. This is widely recognised and its value is sufficiently large that both sides will seek to retain extensive engagement. The research system is very sensitive to disruption and care will need to be taken in negotiations to ensure funding and the free movement of researchers are maintained. It is unrealistic to think the UK can replicate similar institutions at a national level given the extent of existing interactions. In an ideal world, Brexit could be used as an opportunity to build a better system and address existing problem areas. Unfortunately, the very fact that the Brexit vote went the way it did suggests that the value of this collaboration was either not recognised or not valued.

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About the author

Paul Nightingale is Deputy Director and Professor of Strategy at the Science Policy Research Unit, University of Sussex. He was originally trained as a chemist and worked in industry in an R&D laboratory. His main areas of research are science policy, innovation management and the strategic management of technology.

He has worked extensively on the innovation and its financing in the UK with a focus on the biopharmaceutical industry and large and small high-tech firms. His work highlights the importance of models and modelling as ways in which scientific research informs the development of technology, with empirical work on the financial services sector, drug discovery, scientific infrastructure and traditional project based, software intensive infrastructure subsystems.

The 23 June 2016 Brexit referendum saw British voters reject membership of the European Union. Now that a decision has been made, it is time to look forward and find the best solutions for the future of both the UK and the EU.

This VoxEU eBook regroups the views of more than a dozen leading economists and specialists on a broad range of issues, from various perspectives. The topics include globalisation, trade policy, threats to the City, immigration, labour markets, implications for Ireland, the options for Scotland, and the effects on the rest of the EU.

Given that the way forward is uncertain and talks may take years, the aim of this eBook is to provide a first take on the issues and options facing the UK and the EU.

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