CEPR PRESS

Edited by Jonathan Portes

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UK IN A CHANGING EUROPE

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Contents

Foreword

Some eighteen months since the UK exited the EU's Single Market and Customs Union, we are finally beginning to see data indicating what the impact of Brexit has been. This collection brings together a number of acknowledged experts in the field to consider what we have learned to date. In keeping with the missions of UK in a Changing Europe, CEPR and VoxEU, the various contributions that follow present the findings of the latest research in a clear, concise and accessible manner. They deserve a wide audience.

This eBook was put together on a very tight timescale; the conference at which the underlying papers were presented took place in London on 27 April 2022. We are grateful to the authors for preparing their papers so quickly after the conference; to others in the CEPR and UKICE teams; and especially to Anil Shamdasani for his quick and efficient work in editing and proofing.

CEPR, which takes no institutional positions on economic policy matters, is delighted to provide a platform for an exchange of views on this extremely important topic.

Tessa Ogden
Chief Executive Officer, CEPR

Anand Menon
Director, UK in a Changing Europe

May 2022

Introduction

Jonathan Portes
King's College London

What has Brexit meant for the UK economy? For those of us who live in the UK and follow the political convulsions unleashed by Brexit, it may seem like an eternity since the referendum. However, in the sense of being able to examine hard data on economic developments since the implementation of the EU–UK Trade and Cooperation Agreement (TCA), Brexit has just begun. But while it is of course far too soon to draw any firm conclusions on the longer-run economic impacts, now seems like an opportune moment to move from models and forecasts to empirical analysis. So, six years on from the referendum, and over a year since the implementation of the TCA, this volume brings together leading academic researchers on trade, immigration and the political economy of Brexit to present new research and evidence on different aspects of this question.

PRE-REFERENDUM FORECASTS

Prior to the referendum of June 2016, there was a clear consensus among economists about the likely impacts of leaving the EU. By facilitating trade, capital flows, and migration within Europe, EU membership had increased UK economic growth and per capita GDP over the four decades since the UK joined the Common Market in 1973; reversing this would, correspondingly, reduce future growth. The heads of the UK's three leading independent economic research institutes – the Institute for Fiscal Studies, the National Institute of Economic and Social Research, and the Center for Economic Performance – summarised the impacts as follows (Chadha et al. 2016):

> prolonged uncertainty, reduced access to the Single Market, and reduced investment from overseas... resulting in lower real wages, a lower value of the pound, higher borrowing, lower public spending or higher taxes; and in the short run, higher unemployment

A slightly more nuanced, but complementary, perspective noted that the impacts would depend crucially on the form of Brexit (Armstrong and Portes 2016):

> Economists agree that trade, migration and access to large markets are good for economies. EU membership has led to a relatively liberal approach to both and provides full access to the largest single market in the world. If this could be maintained outside the EU and better trade deals negotiated, then the economic impact might indeed be neutral or even a slight positive

One Leave voter dismissed such forecasts with the now famous putdown, "That's your bloody GDP, not ours" (Menon 2016). This anecdote is often interpreted as showing that Leave voters did not see the economy as a priority, focusing more on cultural issues or more abstract concerns like 'sovereignty'.

But Thiemo Fetzer argues in his chapter that this is an oversimplification. Rather, those who swung to Leave were those who had not seen the benefits of rising national-level GDP and had suffered most from austerity – in particular, cuts to benefits and public services – in the years running up to the referendum. Instead of mitigating the economic impact of structural changes – globalisation, immigration, trade, and wider demographic trends – government policy, especially after 2010, exacerbated them. The level of GDP does matter – but, arguably, its distribution matters at least as much.

Developments immediately following the vote did not improve the credibility of economists. Forecasters – research institutions like NIESR and IFS, as well as the Treasury and the IMF, and City economists – who predicted economic gloom as a direct result not of Brexit itself but of the referendum result did so on the basis of the expected impact on financial markets, business and consumer confidence (HM Treasury 2016). But they were (mostly) wrong. While the pound did indeed fall much as expected, market interest rates did not rise, and neither the equity market nor house prices fell. More importantly, after an initial shock to confidence, businesses and consumers largely shrugged off the result. The labour market remained strong, and unemployment actually fell slightly.

However, as I noted then (Portes 2017), this reputational damage should arguably have been confined to those who predicted an immediate negative shock. The failure of economic forecasters to predict the short-run macroeconomic impacts of the referendum result – where the key transmission mechanisms were market, business and consumer confidence and uncertainty – did not necessarily invalidate the long-run predictions of the damaging effects of restrictions on trade and migration, any more than the uncertain record of short-term weather forecasts invalidates models of the impact of greenhouse gas emissions on the climate.

BREXIT MEANS BREXIT

Between the referendum and the election of a majority Conservative government committed to a 'hard' Brexit in late 2019, the economic debate, like the political one, focused on the nature of the future trading relationship between the UK and the EU, as well as the related issue of the post-Brexit migration system. Here, the economic consensus was again clear: the UK's *economic* interests (and the best observers were clear that they were referring simply to economic interests) would be best served by seeking to remain in the Single Market. As Richard Baldwin put it in an earlier CEPR eBook, "[t]he alternative that seems most sensible from an economic perspective is the Norway option", while noting that this would require the UK government to accept the continuation of free movement (Baldwin 2016).

Indeed, even the government's own analysis broadly supported this position; the most comprehensive modelling exercise, undertaken in late 2018 by the (then new but now defunct) Department for Exiting the European Union, analysed four potential Brexit options, concluding that an "EEA-type arrangement" would reduce long-term per capita GDP by about 1.5%, less than a third of the impact of exiting the Single Market while concluding a comprehensive free trade agreement (DExEU 2018).

Fetzer argues that while the former option may have represented the political centre of gravity, both of Parliament and the country as a whole, the fragmentation of the political system, combined with the UK's 'winner-takes-all' political system, and the first-past-the-post electoral system, meant that it was the latter that eventually materialised. The UK government, first under Theresa May and then Boris Johnson, rejected the EEA model, making clear "we are not leaving the European Union only to give up control of immigration" (May 2016).

This meant in turn that the EU never seriously considered what, if any, compromises it could make on free movement. Instead, it underlined the fact that free movement was an integral part of Single Market membership, and that outside that a comprehensive free trade agreement was the closest relationship available. In that sense, as Portes (2022) argues, the politics of immigration and free movement were the key driver of the shape of the UK–EU post-Brexit economic and trading relationship, as now enshrined in the Trade and Cooperation Agreement, agreed in December 2020 and implemented on 1 January 2021.

The TCA, while providing for zero tariffs and quotas on traded goods, contains very few provisions of any economic significance relating to the mutual recognition of regulatory standards, regulatory equivalence for services (including financial services), or labour mobility. Compared to membership of the EU (and of its Single Market and Customs Union), it therefore implies a major increase in trade barriers and trade costs in goods and services, as well as new restrictions on migration flows. As Adam Posen puts it in his chapter, the UK was fare more open to trade and immigration, and attractive to FDI, before Brexit. Or, as he pithily summarises, "Brexit means that the UK has declared a trade war on itself". And with the interregnum between the referendum and the implementation of the TCA over, we can now look at data, albeit early and noisy, on the results.

TRADE IN GOODS

Two of the chapters focus on trade in goods – the key focus of most analysis before the referendum, and also the topic on which the most detailed and timely data are available. Rebecca Freeman, Kalina Manova, Thomas Prayer and Thomas Sampson analyse both the period between the Brexit referendum and the end of 2020, and the first year of trade under the TCA. So they address two analytically separable questions: the trade effects of future, but uncertain, trade cost increases, and of the realised impact of higher trade costs under the TCA.

On the first, they find no evidence of a statistically or economically significant decline in the UK's trade with the EU relative to the rest of the world prior to the implementation of the TCA. By contrast, the actual introduction of the TCA caused a major shock to UK–EU trade, with a sudden and persistent 25% fall in UK imports from the EU, relative to the rest of the world. There is only a smaller and temporary decline in relative UK exports to the EU, but nevertheless a large and sustained drop in the number of trade relationships between UK exporters and EU importers. This suggests that the introduction of the TCA caused many small UK firms to stop exporting to the EU, but that larger firms were by and large able to absorb any extra costs.

Similarly, Jan David Bakker, Nikhil Datta, Josh De Lyon, Luisa Opitz, and Dilan Yang find that impacts were quite different across sectors and destinations. First, they note that UK imports from the EU have fallen both in absolute terms since the referendum and relative to imports from non-EU countries since the TCA's implementation. This is not the case for exports, where trade with the EU has followed a similar path to trade with non-EU countries so far. However, a more detailed analysis reveals substantial heterogeneity across products in the effect of Brexit on trade flows. In some sectors, there is evidence that goods have been substituted from EU to non-EU countries, especially in sectors where imports from the EU are used as inputs to production, such as motor vehicles. In others, there is a fall in imports from the EU but no obvious increase in imports from non-EU countries. This could represent either a fall in the overall volume of consumption of the good or a switch to domestic providers.

Since these changes in import patterns are the result of increased costs resulting from new barriers to trade – customs checks, increased waiting times, and additional paperwork – they are likely, at least in part, to be passed on to consumers. Focusing on the food industry, Bakker et al. show that products more reliant on imports from the EU in 2015 saw larger increases in prices than those less reliant on the EU both immediately after the 2019 election – when it was confirmed that the UK would leave the Single Market and Customs Union – and the implementation of the TCA in January 2021.

Using a differences-in-differences approach, they estimate a 6% increase in food prices due to Brexit over the two years to the end of 2021. While high inflation is now a global phenomenon, and the recent sharp rise in inflation in the UK is not obviously out of line with the EU or US, the apparent upward pressure on food prices resulting from Brexit is certainly a far cry from the claims by some proponents of Brexit that leaving the EU's Common Agricultural Policy would result in sharp falls in food prices (Sampson et al. 2018).

The chapter by Meredith Crowley, Lu Han and Thomas Prayer explores the implications of preferential trade arrangements – and, in the case of Brexit, their removal – for market power, pricing, and consumer welfare. They show that in imperfectly competitive markets, tariff reduction impacts prices not just directly but also by encouraging the entry of new exporters via competitive pressures. Corresponding, increased tariffs (or other trade

barriers) is likely to have the reverse effect; reducing the number of exporting firms and raising markups and prices. While these effects might be expected to take some time to materialise, and the data used by both Freeman et al. and Bakker et al. reflect only the first year of the post-Brexit trading arrangements, their results are certainly consistent with the predictions of Crowley et al.

TRADE IN SERVICES

Data on services trade are slower to arrive and less granular than those for goods; and post-pandemic disruption continues to affect travel, tourism and some other 'in-person' services delivery. Nevertheless, Jun Du and Oleksandr Shepotylo show, using a synthetic differences-in-differences approach, that, in contrast to trade in goods, the period between the referendum and the implementation of Brexit did see a significant Brexit-induced fall in UK service exports, amounting to about 6% in 2019. There is no evidence to suggest that UK businesses have redirected exports from the EU markets to those outside the EU. The apparent beneficiary is Ireland, which has experienced rapid growth in its service exports over the same period. As Du and Shepotylo note, while worrying enough, their analysis only covers the anticipation and deterrence effect up to the end of 2019; it will take some time for the full impact of Brexit on UK services to emerge

Focusing on financial services, Sarah Hall also finds some evidence of a decline in UK exports to the EU, and of the relocation of some financial service activity to locations elsewhere in the EU, although no one centre has gained disproportionately. And while perhaps 10% of total assets of the UK banking system have moved, a far smaller proportion of jobs or value added has been lost.

Looking forward, the key issue is the extent to which the UK regulatory regime diverges from that in the EU, and the likely consequences. While some divergence is likely – for example, in insurance – there is little appetite in London for a 'race to the bottom'; instead, gradual and piecemeal divergence is more likely. Over the medium term, the implication is that London will retain its prominence as Europe's leading financial centre for the foreseeable future, but this dominance will be gradually eroded over time.

MIGRATION AND THE LABOUR MARKET

If the politics of immigration and free movement were the key drivers of both the Brexit vote and the decision to leave the Single Market, what of the economic impacts of the new post-Brexit immigration policy? As with trade, the consensus of economists was that ending free movement and introducing a more restrictive immigration policy overall would reduce growth, certainly in GDP terms, and likely in terms of GDP per capita, as well as having a negative impact on the public finances. This was the conclusion of

the government's own modelling described earlier (DExEU 2018), as well as independent analyses (notably Forte and Portes 2017), which correctly forecast a sharp decline in EU migration to the UK even before free movement legally ended.

In my chapter, I describe the new system, which does indeed represent a very significant tightening of controls on EU migration compared to free movement. Migrants coming to work in lower-skilled and lower-paid occupations are, in principle, no longer able to gain entry. However, compared to the current system – and in contrast to earlier predictions – the new proposals represent a considerable liberalisation for non-EU migrants, with lower salary and skill thresholds and no overall cap on numbers. This implies that about half of all full-time jobs in the UK labour market could in principle qualify an applicant for a visa. This represents a very substantial increase – perhaps a doubling compared to the previous system – and also makes the new system considerably more liberal with respect to non-European migrants than that of most EU member states, which typically apply much more restrictive (de facto and/or de jure) skill or salary thresholds, and often enforce a resident labour market test. The provisions for international students after completing their studies are also relatively liberal.

So, the new system does not represent an unequivocal tightening of immigration controls; rather, it rebalances the system from one which was essentially laissez-faire for Europeans while quite restrictionist for non-Europeans, to a uniform system that, on paper at least, has relatively simple and transparent criteria. And this analysis appears to be born out in data on the operation of the system in its first year, where there has been a significant rise in work visas issues compared to pre-pandemic levels, particularly in the health sector, and an even larger rise in the number of international student visas. I conclude that there is some cause for optimism about the economic impacts of the new post-Brexit UK immigration system.

Madeleine Sumption concurs with my analysis of the overall impact of the new system, and focuses in particular on the impact of this 'rebalancing' on low-wage sectors that were previously very dependent on EU workers who could move to the UK under free movement rules. She finds that many employers in industries that previously relied heavily on EU migration are finding it difficult to recruit, although Brexit and the end of free movement are not the only factor at play here, with broadly similar patterns also observed in other high-income countries.

She also notes that, in theory, there are a number of ways employers could respond to these shortages:

- attracting more workers from the resident, for example by raising wages, improving working conditions or being more flexible on hours and contracts;
- recruiting workers from abroad, usually by sponsoring them on a work visa;
- reducing the need for workers, for example through automation, switching to less labour-intensive goods and services, or cutting back production in the UK.

While some employers have turned to overseas recruiting under the new immigration system, this has not been the norm in lower-wage industries, likely as a result of the new system's eligibility criteria and costs (although the extension of the Health and Care visa to low-paid social workers may make this sector an exception). Perhaps surprisingly, despite anecdotal evidence, there is very little evidence so far that shortages are translating into sustained higher wages in the affected sectors. Indeed, Sumption notes that the hospitality industry, which saw the largest percentage declines in EU citizen employment from June 2019 to June 2021, was also one of the industries with the lowest wage growth during that period. The adjustment process has some way to run.

CONCLUSIONS AND THE WAY FORWARD

The analyses in this eBook are very much a preliminary and incomplete account of the economic impacts of Brexit. In some cases, they raise as many questions as they answer. For example, why have UK imports of EU goods fallen so sharply, while UK exports are much less affected, when (in contrast to the EU) the UK has not yet introduced the full panoply of import controls provided for under the TCA? Why has the large fall in the number of EU workers in some sectors – and a corresponding rise in vacancies – not translated into higher wages, at least in relative terms? Nevertheless, the overwhelming weight of the evidence presented suggests that – very much as economists predicted – Brexit has made the UK a less open economy, reduced UK trade in both goods and services, and increased prices for some products. Moreover, despite public scepticism of economists and their forecasts, our verdict is increasingly shared by the wider public (Surridge 2022).

However, as Fetzer points out, aggregate impacts are not the whole story by any means. His analysis suggests not only that the costs of Brexit are very unevenly distributed, but that, perhaps paradoxically, those areas that voted most heavily for Brexit are the worst affected, while London has escaped largely unscathed, at least so far. More broadly, while austerity has been moderated, it has by no means gone away, with the current 'cost of living crisis' likely not only to hit the poorest hardest, but to be exacerbated by inflation-driven cuts in benefits and public services – "austerity by stealth", as Portes (2022b) puts it.

Both Posen and Fetzer propose distinct, but complementary, strategies to address both the economic and political implications of Brexit. Posen outlines four key points. First, Posen argues for the UK to abandon our post-imperial delusions and to follow, rather than try and inevitably fail to 'lead' globally in an economic sense. Second, and building on the relative liberalism of the post-Brexit migration regime, we should focus on attracting skilled labour and productive capital, where we still have potential advantages, rather than obsessing about trade deals that will make little economic difference. Third, we should stop trying to 'defy gravity', and re-engage with the EU, based on regulatory convergence. Finally, we should seek to rebuild our position as a bridge between Europe and the US, albeit now from outside the EU. Meanwhile, Fetzer suggests both much

greater devolution and greater redistribution – geographically and between generations, as well as from rich to poor. The alternative, both suggest, is a poorer, more insular and more divided country.

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CHAPTER 1

A short history of the political economy of Brexit

Thiemo Fetzer
University of Warwick

The UK's 2016 EU referendum was a watershed moment in European history. There has been a lot of focus on trying to make sense of the cross-sectional variation in support for 'Leave' in the referendum across people and places. There has been much less focus on the broader economic and political context that enabled an EU referendum to be held in the first place, or on the political economic implications of the 'hard Brexit' that became a political reality. This chapter aims to summarise work carried out across several papers and multiple years providing a nuanced insight into the underlying political economy forces at play and speculates about the future direction and challenges.

BREXIT HIGHLIGHTED REGIONAL AND SOCIOECONOMIC CLEAVAGES

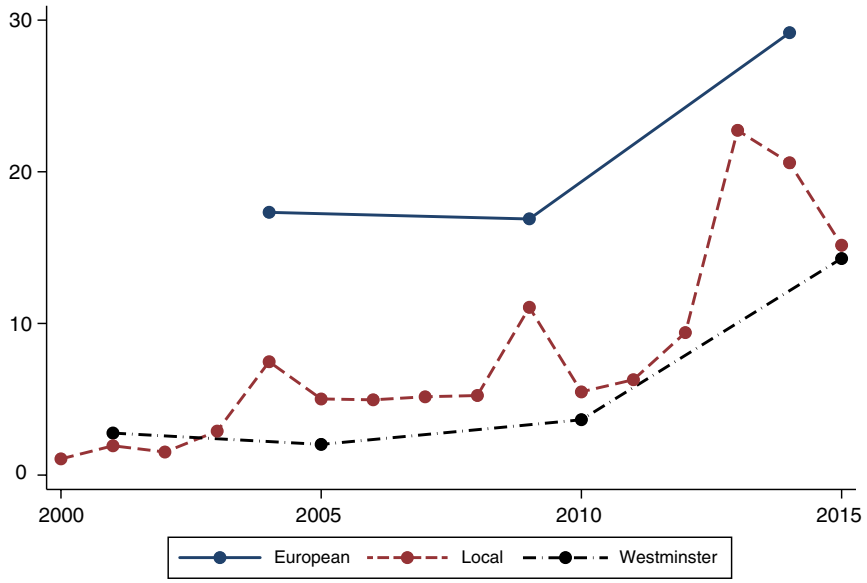
Statistically speaking, it is not hard to 'explain' the dominant factors behind the different levels of support for Leave. Looking at the 2016 EU referendum vote and its geographic distribution or its distribution across individuals, we observe that people and places with relatively poor economic fundamentals, often referred to as the places and people that have been 'left behind', came out much more strongly in favour of Leave in 2016 (Alabrese et al. 2019, Becker et al. 2017).

Support for Leave, however, was not made up of a cohesive social or demographic group, as is widely suggested. Most of the political science research and popular discourse has focused on characterising the *average Leave supporter* as a white English male, with relatively low educational attainment, nearing or in retirement. This average Leave supporter was indeed dominant, easily accounting for two out three Leave votes. Yet, the crucial voters that swung the referendum (and likely played a major role in bringing about a referendum in the first place) were a mixed bag of protest voters that make up the remaining third.

This polity of *marginal Leave voters* is crucial to understanding how the referendum became a political reality in the first place and why Leave eventually won. EU scepticism was always more widespread among the average Leave supporter, not just in 2016 but also over previous decades. It thus is vital to understand who, over time, *became* a Leave supporter and *why they did so*. Unfortunately, we do not have good historical data that enable an exploration of this question directly. The next best window through which we

can study the build-up of Leave sentiment – which, in turn, may help in understanding the political realities that enabled an EU referendum to be called in the first place – is using electoral data across local, European and general elections. In Fetzer (2019), I document that the characteristics of Brexit began to appear in the drastic increase in support for the UK Independence Party (UKIP), but only from 2010.

FIGURE 1 SUPPORT FOR UKIP ACROSS EUROPEAN, LOCAL AND GENERAL ELECTIONS OVER TIME



The emergence of UKIP was consequential in terms of driving the UK's electoral outcomes in a direction that made an EU referendum a political possibility. The drastic increase in UKIP support across all elections post 2010 was a prime driver of this.

The 2015 general election paved the path. It was predicted to result in another hung parliament and a continuation of the Conservative/Liberal Democrat coalition government, but this did not come to be. This was crucial given that, in 2013, David Cameron had promised the EU-sceptic wing of his party a referendum on EU membership should he win a majority in the 2015 election. This should have helped the Conservatives to attract anti-EU voters, but instead Conservative support flatlined while support for UKIP surged, with the party coming in third (with 12.7% of the vote) but winning only a single seat in Parliament. The UKIP surge deprived Labour and the Liberal Democrat candidates of crucial votes, while not hurting the Conservatives as much.

This voter movement helped the Conservatives to win seats in constituencies where elections are typically fought out either between Labour and the Conservatives or between the Liberal Democrats and the Conservatives. As a result, the 2015 general election saw David Cameron gaining 24 seats with just a 0.7% swing, while Labour and the Liberal Democrats lost a combined 79 seats. The prime minister ended up having to call an EU referendum to honour his promise.

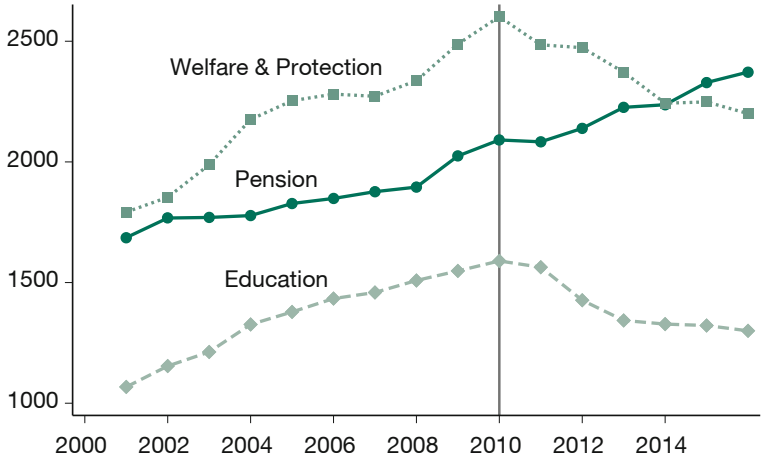
It is therefore imperative to understand what caused this dramatic increase in electoral support for UKIP between 2010 and 2015. And again, the answer must be found in domestic politics.

AUSTERITY AND THE POLITICAL BACKLASH AGAINST IT ENABLED AN EU REFERENDUM TO BE CALLED

Domestic politics were notably shaped by the UK coalition government's drastic cuts to public spending in the wake of the global financial crisis. There was a simple recurring theme to these spending cuts: the more deprived an area, the more exposed it was to the cuts (Beatty and Fothergill 2013, Innes and Tetlow 2015). The very same places that had been falling behind economically, which are home to a lot of 'left-behind' voters, were much more exposed to and affected by austerity. To a significant extent, austerity – even within regions – exacerbated existing cleavages, with public spending becoming much more age-biased. Figure 2 illustrates this by comparing real public spending per capita on pensions, education, welfare and social protection. It is quite apparent that since 2010, while expenditure on (state) pensions has continuously increased, spending on education (i.e. benefiting the future generations) as well as spending on the current working age adult population has drastically declined.

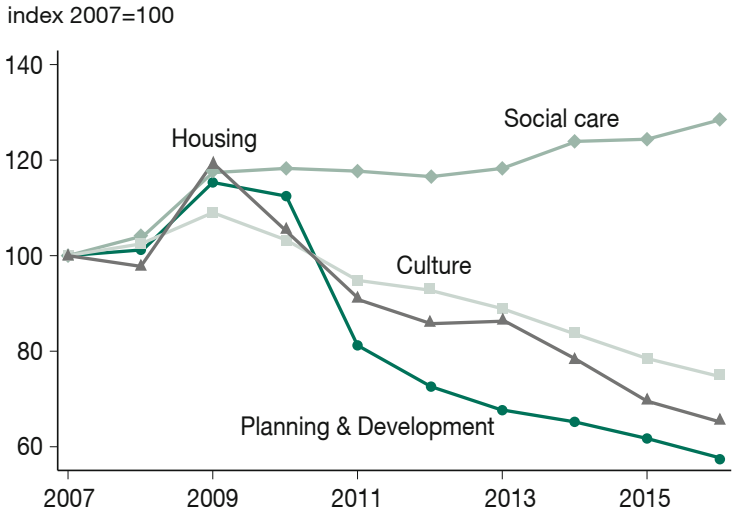
The sharp changes in public spending were not limited to central government spending. At the local level, the adjustments were even more pronounced. Real spending per person by local authorities decreased by around 25% between 2010 to 2015. Yet again, this aggregate figure masks notable compositional changes. Figure 3 documents this for a few classes of spending, with values indexed to 100% in 2007. Except for social care spending – which, again, mostly benefits the current elderly population – spending on planning and development, housing and culture and many others saw drastic cuts ranging from 20% to 40% relative to 2007.

FIGURE 2 EVOLUTION OF REAL SPENDING PER CAPITA ON PENSIONS, EDUCATION AND WELFARE AND SOCIAL PROTECTION (£)



Source: Fetzer (2019).

FIGURE 3 LOCAL GOVERNMENT SPENDING INDEXED TO 2007, BY CATEGORY



Source: Fetzer (2020).

These cuts have left their mark on politics, notably shaping contests across local, European and general elections since. In Fetzer (2019), I document that a notable part of the increase in electoral support for UKIP since 2010 can be attributed to austerity-induced protest voting.

In fact, austerity-induced protest voting directly shaped the hugely consequential 2015 general election. Austerity hurt the Liberal Democrats at the ballot box much more than it hurt the Conservatives. As the junior partner in the 2010 coalition government, in essence the Liberal Democrats implicitly underwrote most of the public spending cuts that appalled their respective voters. As a result, the shift of voters towards UKIP was much more pronounced in places that were more exposed to austerity and also much larger among voters that had supported the Liberal Democrats in 2010.

As discussed, this was significant in constituencies that were traditionally contested by the Liberal Democrats and the Conservatives. Out of the 49 seats that the Liberal Democrats lost, 27 seats were lost to their Conservative coalition partners, enabling the Conservatives to win an outright majority in the general election.

AUSTERITY BROKE THE IMPLICIT SOCIAL CONTRACT, INDUCING A PROTEST VOTE

Austerity and the resulting cuts to social welfare spending brought to the surface a broad set of existing economic grievances that had been festering for decades. The recognition that structural change is generally desirable for economies and societies is a key distinguishing feature of Western-style liberal market economic orders. This is underpinned by an implicit social contract in most Western countries based on the understanding that the welfare state will provide social insurance in the wake of large structural changes that lead to adjustments in the economy.

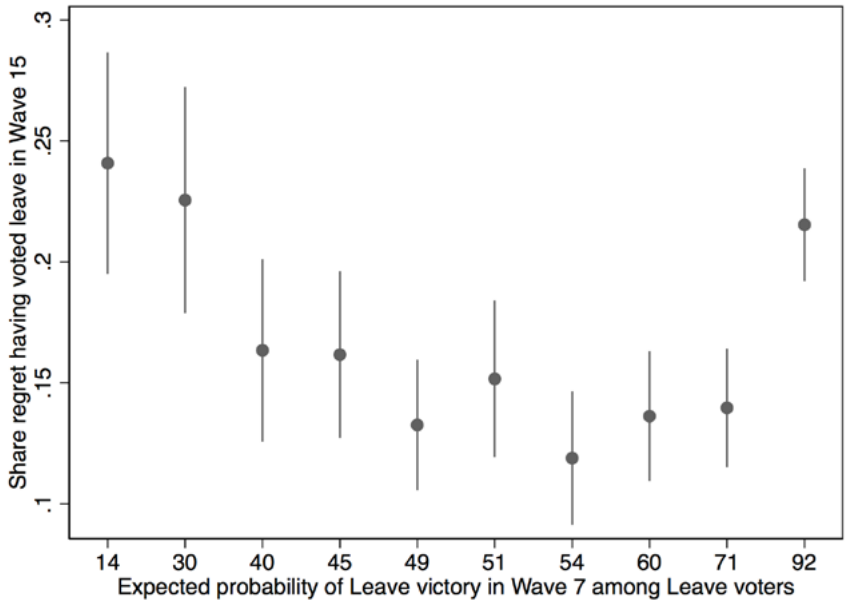
While the broad evidence nowadays suggests that immigration is unlikely to have large redistributional consequences (Becker and Fetzer 2018, Portes, 2019), there are many other economic changes that can aggravate existing economic and social cleavages – between the young and the old, between urban and rural areas, and between the high- and low-skilled, among many others. The last decades have seen notable examples of such changes, including structural transformation induced by globalisation (Autor et al. 2013, Colantone and Stanig 2018, Dippel et al. 2015), broader skill-biased technological change (Graetz and Michaels 2015, Rogerson 2008), the rise of the gig economy, growing market power of firms and the proliferation of insecure employment practices, along with the dislocations in housing markets resulting in protracted housing insecurity for large social groups (Fetzer et al. 2019).

The retreat of the welfare state, which had helped tackle some of the dislocations caused by these structurally induced economic changes, was akin to ripping the plaster from a wound. It is not surprising that the resulting grievances eventually found their voice in electoral protest votes. These protest votes were easily mobilised by a political campaign that promised a change to a status quo that had ceased to work for many people. It is this constituency that gave rise to the marginal Leave voter and the marginal UKIP supporter, and which enabled the referendum to be held in the first place.

FROM THE EU REFERENDUM VOTE TO A HARD BREXIT

The referendum was a direct result of the UK's austerity-induced political dislocations, which have been broadly aided by an electoral system that features a winner-takes-all mentality and a political culture in which referenda are not widely used. Following the EU referendum, a plurality of voters settled into a position that the result should be implemented, despite many marginal Leave voters soon coming to regret their vote. Interestingly, survey data suggest that this regret is most pronounced among those who voted for Brexit but did not expect Leave to actually win the referendum (see Figure 4).

FIGURE 4 SHARE OF BRITISH ELECTION STUDY RESPONDENTS STATING THEY REGRET HAVING VOTED TO LEAVE AS A FUNCTION OF THEIR EX-ANTE EXPECTATION OF THE PROBABILITY THAT LEAVE WOULD WIN THE EU REFERENDUM



Note: Each data point refers to one decile of Leave voters. The value label on the horizontal axis is the expected probability of a Leave victory in this decile of Leave voters.

This plurality of voters found itself sitting between the hardline 'Brexiteers' on one side, who wanted to implement the hardest form of Brexit, and a group of staunch Remain supporters who wanted to maintain the status quo of the UK as a member of the EU, or at least supported another referendum on a well-defined plan for Brexit. Politically, the momentum was with the Brexiteers.

As the 2015 election had provided the Conservatives with only a narrow majority in Parliament, Prime Minister Theresa May called another general election in 2017. Her intention was to ensure a stable majority to be able to see through Brexit in the years to follow. May hoped the Conservative Party would make gains in the wake of the EU

referendum as die-hard Leave supporters who had supported UKIP in 2015 (not to be confused with the marginal protest voters) returned to the Conservative Party fold. Once again, however, protest voters complicated matters. Many of the UKIP protest voters switched to supporting Labour under its new left-wing leader Jeremy Corbyn, who represented to them an alternative version of a change to the social and economic status quo.

As a result, rather than winning more seats, the Conservatives lost seats and had to enter into an agreement with the pro-Brexit Northern Irish Democratic Unionist Party (DUP). Contrary to the original plan, this handed the Brexit hardliners in government even more power. The natural consequence was a drawn-out political struggle over the next few years, with Parliament unable to find a resolution to the crisis that was developing as each compromise was voted down and, ultimately, sabotaged by the Brexit hardliners.

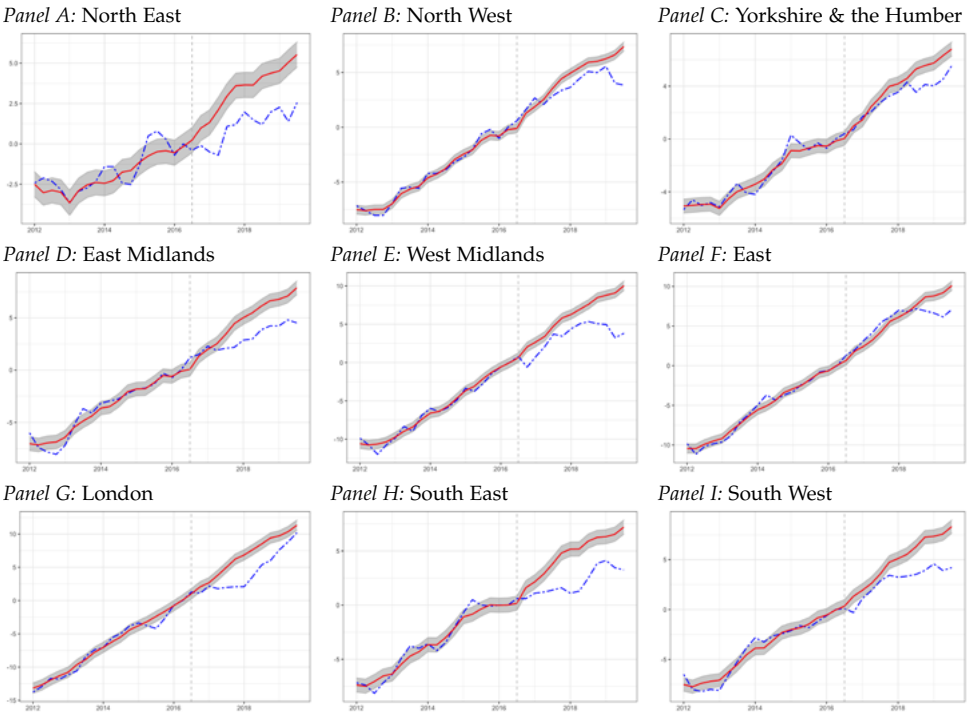
This reached the point when Theresa May was ousted by her party and Boris Johnson installed as new prime minister to implement Brexit. After years of parliamentary manoeuvres, a simple message of "getting Brexit done" resonated with voters and Johnson was able to win an outright majority in the 2019 general election.

THE ECONOMIC DAMAGE OF BREXIT IS WIDENING EXISTING LEAVE VERSUS REMAIN CLEAVAGES

The economic damage of Brexit is becoming increasingly paramount. Most of the studies that have attempted to quantify the economic costs to date focus on national-level estimates (Born et al. 2019). Yet, these costs are likely to have distinct regional flavours. In Fetzer and Wang (2020), we construct synthetic control estimates at the subnational level in the UK which show that the costs of Brexit are highly unequally distributed. Not only do they seem to contribute to economic divergence between the UK's constituent nations, but there are also notable differences within England. Most notably, we observe that London is far less affected than regions with a notable manufacturing sector presence (see Figure 5).

This is interesting, as most of London came out strongly pro-Remain. At the regional level, we find a significant correlation between economic damage that Brexit has caused up to 2019 and the level of support for Leave in 2016. This goes quite contrary to the political ambitions set out in the Conservative Party's 2019 election manifesto, which suggested that the UK could 'level up' or even out regional economic divides. Not only has Brexit increased regional divergence, it has also made it harder to 'level up' as it has reduced the overall size of the economy and thus the resources available.

FIGURE 5 SYNTHETIC CONTROL ESTIMATES OF GDP ACROSS ENGLISH REGIONS VIS-À-VIS THE ACTUAL PATTERN



It is not clear how the economic and social challenges laid bare by austerity, the resulting Leave vote and the subsequent process of Brexit will be addressed . It is even unclear whether there are any honest political intentions to get to the root of the many economic challenges, which are ultimately down to the UK's own economic and political institutions. The electoral system has enabled de facto minority rule and a culture that breeds polarisation and zero-sum politics. The first-past-the-post system can create perverse outcomes in a country whose population actually shows a demand for plurality in politics. The present system cannot account for such plurality, and any outsider party – such as UKIP or the subsequent Brexit Party – can notably affect an electoral outcome.

Going forward, the social and economic headwinds that the UK is facing are manifold. The hard Brexit that became a political reality in 2021 is set to further exacerbate economic inequalities. The higher cost of living that trade barriers imply are invariably passed on to consumers, as are higher labour costs due to a more restrictive immigration regime and likely increases in market concentration.

The UK is at a crossroads. It can choose to redesign its social contract to ensure that the country works for young and working-age adults again. Core economic, but also political, reforms are needed. On the political side, the UK urgently needs to reform its electoral system to ensure that there is genuine political competition between ideas that

produces more consensual politics in which the focus is on finding policies and solutions to increase the economic pie, rather than on in engaging in destructive zero-sum politics. The UK should also enable meaningful devolution, empowering local decision makers who are subject to political competition. This plurality within the country will enable and encourage the type of experimentation and knowledge exchange that can produce better public goods at the local level. Naturally, this has to be supported by a mechanism for redistribution within the country – for example, through a regional cohesion fund that follows a clear policy function and is not subject to nepotism or political capture.

The alternative policy path that the UK could take is very concerning. The economic headwinds are very strong and could produce new extreme policy swings or ruptures. Yet, given the skewed political competition and the high degree of political power of the incumbent Conservative Party, there is a genuine risk that, rather than making Britain work for everyone, politicians find that repression is a viable option to quell social unrest and dissent that cannot find its voice in the current political system.

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CHAPTER 2

Brexit Britain in a changing global economy

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After the 2016 referendum but prior to the implementation of Brexit, two main points about its coming economic impact were evident (Posen 2017, 2019b). First, gravity matters. One of the few things that economics can treat as nearly a physical law is that economies trade and invest primarily with the economies that are closest to them geographically and historically. Brexit was running in the face of that. Second, Brexit would affect more than just international trade. Instead, it had to be seen in a political economy context as well as an economic context of broader EU–UK commercial interactions involving foreign direct investment, financial flows, information networks, and immigration. As has been amply documented, most economic trends post-Brexit have come out pretty much as the mainstream economists expected (Ayele et al. 2021, Bakker et al. 2022, Crowley et al. 2022, Freeman et al. 2022, Portes 2021, Sumption 2022). These studies emphasise the econometric identification of specific Brexit impacts, in keeping with current trends in economic research.

Our purpose in this chapter is to put Brexit in more of a global context as a regime change in the UK's approach to the global economy. We begin by assessing how British economic openness compares to that of other large free market economies before and after Brexit. We then set out the changing nature of the global economy – what one of us has called the 'corrosion of globalisation' (Posen 2019a, 2022a) – which Covid-19 and the Russian invasion of Ukraine have accelerated. Both are important additions because the Brexit discussion has quite understandably tended to focus on the domestic impact and politics, with little attention paid to the diplomatic response from the EU. The global context, however, will shape Britain's outcomes and policy options as much as the immediate economic effects of Brexit implementation. Finally, we offer a 'Global Britain' strategy which is actionable and economically constructive in this changed context.

A SUDDEN SHARP ECONOMIC WITHDRAWAL BY THE UK

As we will show below, during the 1990s through the mid-2010s until the Brexit referendum, the UK was one of the most open large economies in the world. On trade, it was comparable to France, Germany, Italy, and Spain, and it had larger inflows of FDI, immigration, foreign students, and financial capital; it far outstripped the US, Australia

and Canada proportionally for its size on the same measures. Thus, Brexit was not a small adjustment but potentially a shift in the entire orientation of the UK economy, because it would impose a huge terms-of-trade shock to trade with its primary trading partner. The UK was going to be "mugged by economic reality" (Posen 2017) because the basic idea of defying economic gravity was always self-defeating.[1] Put differently in economic terms, once you defy gravity, you end up lost in space.

In order to disentangle Brexit from Covid-19 and some other factors, we analyse its effects on the UK's openness primarily through a comparative lens. The advanced economies that we compare Britain against – namely, the US, Canada, Australia, Japan, Germany, France, Italy, and Spain – have all experienced roughly simultaneously the same shocks brought on by the pandemic, reopening, and the disruption to energy markets from Russia's invasion of Ukraine. Informally, we are doing a difference-in-difference comparison of a policy shift. We see the UK as fitting within two groups for comparison: the European group, which includes the European countries in the sample; and the 'Liberal Pacific' group, which includes the English-speaking countries in the sample plus Japan.

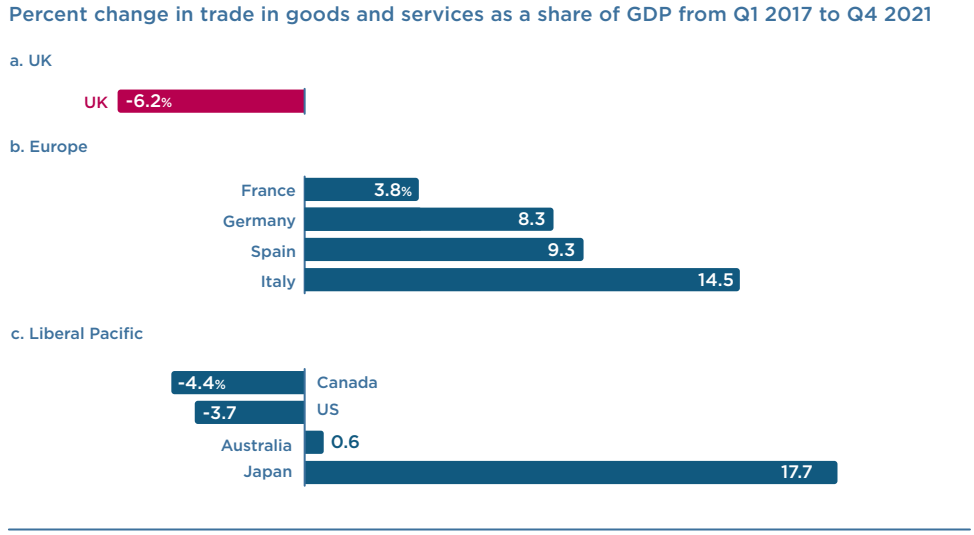
We examine time series data on trade in goods and services as a percent of GDP in order to discern openness to trade. We rely on quarterly data (running until the end of 2021) from the OECD's Quarterly National Accounts Database. On the immigration front, we use data compiled by the United Nations Department of Economic and Social Affairs' Population Division. The data show the average five-year average percent change in each country's migrant stock. The use of a five-year average helps to smooth out volatility and delivers a clear look at trends in immigration growth. The dataset regrettably ends in 2020, so we turn to more recent UK data for a more up-to-date picture. The UK's Office of National Statistics publishes annual spreadsheets; we merged these separate ONS spreadsheets to create an annual time series dataset which runs until 2021. We use World Bank data on foreign direct investment inflows as a share of GDP to get a sense of how open and appealing each country is to foreign investment. We use four-year averages to smooth because such data can be noisy and easily influenced by large transactions in any given year.

In Figure 1, we show the change in the measure of trade openness based on standard imports plus exports as a share of GDP, from the start of 2017 to the latest available data at the end of 2021. The idea of making this comparison is not just that it is since Brexit, but also so that we ignore the downward valley of trade that Covid-19 prompted. What we can see is that the overall decline in trade for the UK is much sharper than for anyone else. Canada suffers a trade decline largely because it was exporting energy and there was a period of low energy use and prices, which have since risen again. We can see that on net,

1 In the long-running West End musical *Wicked*, there is a triumphant song by the lead character at the end in which she sings: "I'm through with playing by the rules of someone else's game…It's time to try defying gravity, and you can't pull me down!" She rises up (on her broom) over the mindless throng, while her sister pleads, "Can't I make you understand you're having delusions of grandeur?" Of course, we all know that however understandably frustrated she may have been, a couple of decades later another sister is under a house and then she herself gets dissolved by water in total defeat of her plans to defy gravity.

and again smoothing out Covid-19, trade has continued to grow for the main economies of Europe. It has also continued to grow for Australia and Japan. Even for the US, with President Trump's term and current President Biden doing nothing to reverse Trump on trade, trade shrunk less than it did for the UK.

FIGURE 1 UK TRADE OPENNESS HAS FALLEN MORE SHARPLY THAN THAT OF OTHER ADVANCED ECONOMIES SINCE BREXIT



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Note: Liberal Pacific group refers to large, advanced economies in the Pacific region, namely the United States, Canada, Australia, and Japan.

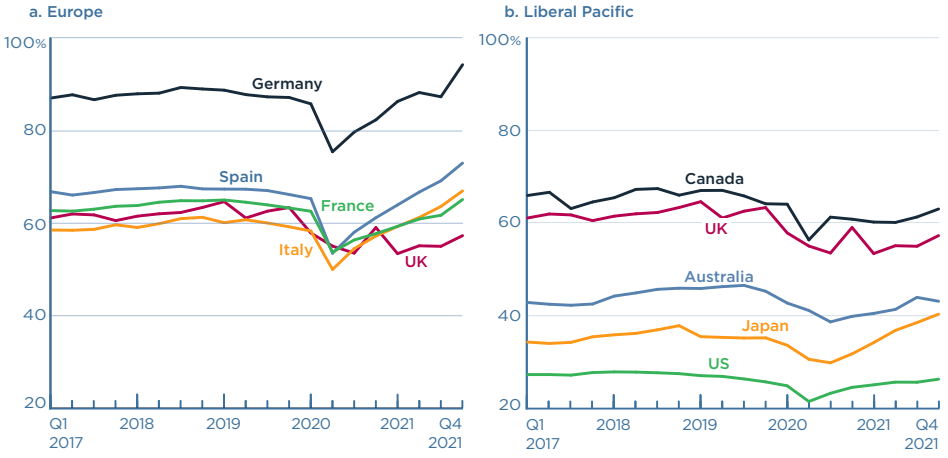
Sources: Organization for Economic Cooperation and Development (OECD), Quarterly National Accounts Database.

In Figure 2, the story gets a little more complicated. The basic message is that, except for Canada, everybody sees a recovery in trade following Covid-19, while the UK basically sits flat. There is no simple mapping between openness and per capita GDP growth, so this is not necessarily a welfare loss. It is a statement, however, that at least top-down, post-Brexit Britain does look different from its peers: it's trade has recovered less from Covid-19 than others, which represents a sort of difference in difference approach.[2]

2 A similar argument can be made about the transmission and persistence of inflation shocks in 2021 and early 2022 in the UK compared to its EU neighbours (Posen 2022b).

FIGURE 2 UK TRADE HAS NOT RECOVERED FROM THE PANDEMIC AS QUICKLY AS OTHER ADVANCED ECONOMIES

Quarterly trade in goods and services as a share of GDP, Q1 2017–Q4 2021



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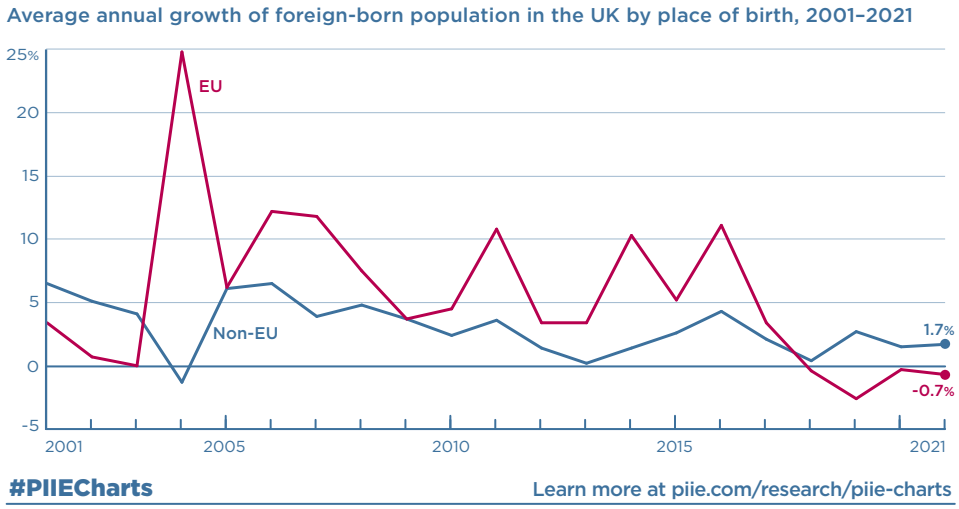
Note: Liberal Pacific group refers to large, advanced economies in the Pacific region, namely the United States, Canada, Australia, and Japan.

Sources: Organization for Economic Cooperation and Development (OECD), Quarterly National Accounts Database.

Looking at receptiveness to foreigners, the UK had a long period, starting in the early 2000s, when it was attracting and retaining a large number of foreign-born people. Figure 3 shows the growth in the foreign-born population, which is a proxy for immigration. After Brexit, EU immigration tails off and becomes negative. This should be no surprise, but the sharpness of the drop seems to be unrecognised. As Portes (2021, 2022) has pointed out, importantly, the UK has not seen a decline in non-EU immigration and in other nationally collected data (not shown), there has been even a significant surge. It is hopeful that, when so much of the pro-Brexit referendum campaign seemed to have been run on xenophobia (if not outright anti-migrant claims), we see a shift in terms of migration from EU sources to elsewhere. Whatever the expansion in non-EU migration, however, it is not strictly compensatory for the lost EU workers; importing more doctors and students does not make up for workers in agriculture, transport, hospitality and construction.

FIGURE 3 UK FOREIGN-BORN POPULATION GROWTH HAS SLOWED SINCE THE BREXIT VOTE



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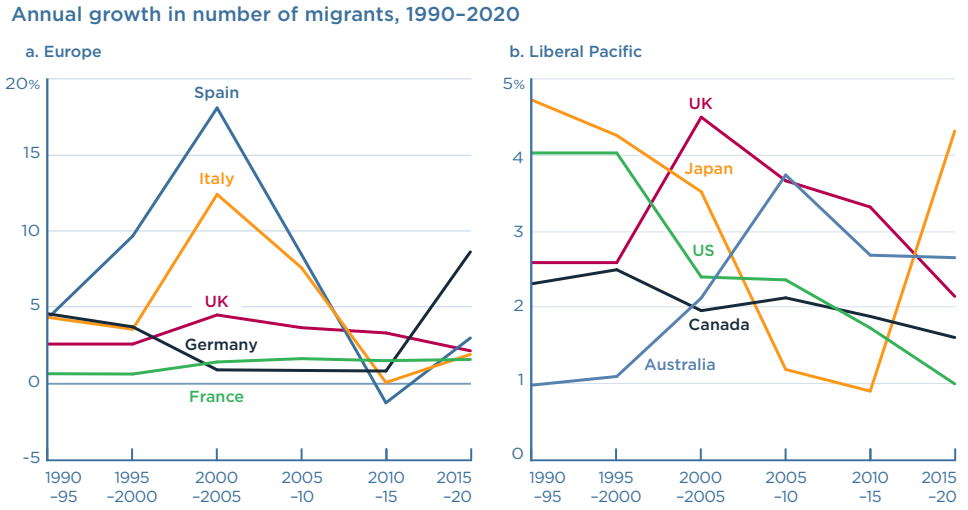
Note: Foreign-born population refers to migrants born abroad but living in the UK, including those on temporary visas.

Source: UK Office of National Statistics.

Looking at the left-hand panel of Figure 4, which shows comparable Europe, Spain and Italy had major surges in migrants from the Mediterranean early in the 2000s. They capped these off very quickly, and growth then fell back down. On average, if you were to leave out that period, the UK accepted more migrants on average than the rest of the large European economies over this period. Post-Brexit (unfortunately there are comparable data only up to 2020), the UK is on a downwards trend while everybody else in 'Rich Europe' was back on an upwards trend before the invasion of Ukraine. When we look at the Liberal Pacific economies, the picture is a little more mixed but the UK had been in pole position (although, contrary to a lot of expectations, there were significant periods, including of late, in which Japan was challenging the UK for the highest migrant population growth among the Liberal Pacific economies and in which the US was steadily going down).[3] Using this dataset and splitting the UK's foreign-born population into EU and non-EU buckets helps show that non-EU immigrant population growth remained positive during the Covid-19 pandemic, which suggests that the decline in EU immigration stems from policy – rather than public health – changes. The UK's immigration slump was predictably exacerbated by the end of free movement. So, the UK has ceased to be more open than others to migration, and it has not replaced what EU migrants specifically brought to the economy.

3 Posen (2021) documents how strong and how long the US withdrawal from globalisation has been, including the reduction in migration since the mid-90s. The UK remains much more open than the US, but that is not necessarily the standard that you want, especially when even Japan and Australia, which have their own very fraught racist histories, have opened up significantly to migrants in recent years.

FIGURE 4 UK IMMIGRANT POPULATION GROWTH HAS FALLEN BEHIND OTHER ADVANCED ECONOMIES



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Note: Liberal Pacific group refers to large, advanced economies in the Pacific region, namely the United States, Canada, Australia, and Japan. Date ranges show data from July 1 of the first year in range to June 30 of the last year.

Sources: United Nations Department of Economic and Social Affairs, Population Division (2020). International Migrant Stock 2020.

There has been a lot of attention in the UK on financial capital flows, whether it be the City of London managing others people's money, oligarchs from Russia and Middle East putting money into London real estate, or part of the long history of worrying about the pound. What often gets overlooked is the issue of how much foreign direct investment the UK used to attract (both brownfield and greenfield). There is clear evidence that inward foreign direct investment is extremely positive for growth, tending to lead to higher-wage jobs, more advancement in innovation and technology, more transfer of skills, and more sales of associated business services (Mathew et al. 2021, Moran et al. 2005).

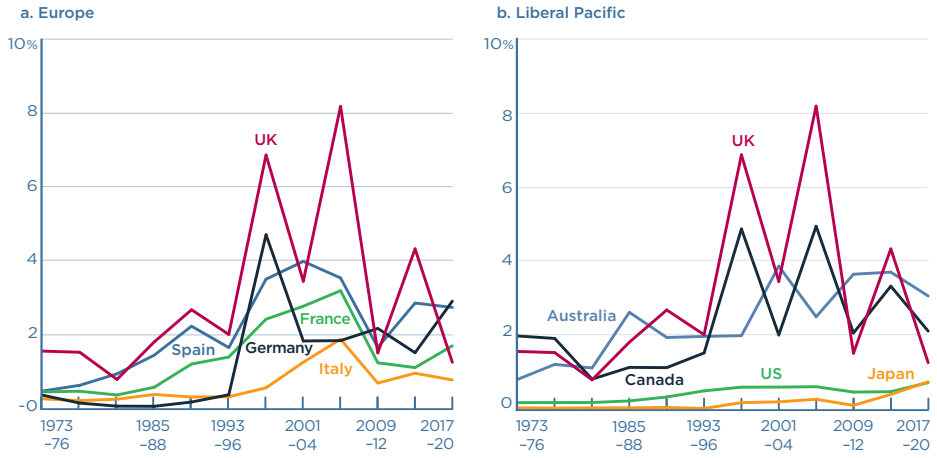
Yet, already by 2017, it was clear that while the UK auto industry (meaning Toyota, Nissan, Ford, Vauxhall, and Land Rover) would not immediately stop producing cars in the UK, it would soon stop producing them for export to Europe. Therefore, the plants and the associated investment would decline over time and would not be replaced (Posen 2017). This is what we are seeing across other industries as well as autos.

Figure 5 shows multi-year average data on foreign direct investment inflows, going back to a global perspective. By their nature, FDI flow data are extremely choppy because one very large telecom deal or financial market deal can bias the data for a given year. Similar to immigration, but over a longer period in the 1990s and early 2000s, the UK was a leading recipient of inwards FDI. It is no coincidence that this period coincides with the Maastricht Treaty allowing the UK a prime role as a bridge into European markets

for American, Chinese, and Japanese companies. However, FDI inflows to the UK have fallen back in recent years. There is one particular big transaction in financial services in 2016 that drives up the penultimate data point, but taking that out, the UK is no longer defying gravity or a positive outlier compared to other, similar economies in terms of inward foreign direct investment.

FIGURE 5 FOREIGN DIRECT INVESTMENT INTO THE UK HAS FALLEN SINCE THE BREXIT VOTE

4-year average foreign direct investment inflows as a share of GDP, 1973–2020



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Note: Liberal Pacific group refers to large, advanced economies in the Pacific region, namely the United States, Canada, Australia, and Japan.

Sources: World Bank, World Development Indicators database.

SHRINKAGE AFTER THE COLD DIP OF BREXIT

Our international comparison is along three dimensions: immigration, foreign direct investment, and volume of trade. We turn to spider charts in an effort to bring all three of our openness categories together. Spider charts, sometimes called radar charts, are often used to compare individual entities across several unique dimensions. In our case, we compare the UK to its large European neighbours and to the countries of the Liberal Pacific across the three categories discussed previously: trade in goods and services as a share of GDP, the growth of the migrant stock, and inward FDI as a share of GDP. Each of these represents an important aspect of openness – the more open a country

is relative to its peers, the larger its triangle will be. The shrinkage of the UK's triangle therefore illustrates the extent to which Brexit has reduced its openness vis-à-vis the other countries in the sample.[4]

Our methodology is simple but deserves some attention. We place the countries in their respective samples, standardise the data for each country along each dimension, and then plot the standardised values. The length of a triangle's vertex in a given dimension – i.e. the distance from the centre of the chart – indicates the size of a country's z-score in that dimension. Germany, for instance, has maintained a higher level of trade as a share of GDP than its neighbours. This explains the long length of its trade dimension with respect to the other European countries.

The left two triangles in Figure 6 compare the UK to the rest the other major economies in Europe (top) and in the Liberal Pacific (bottom) before Brexit. The red triangles show just how much more open the UK was just a decade or even seven years ago. Looking at the areas of the triangles in the bottom-left chart, the UK was far more open in economic terms than Canada, Australia, the US, and Japan. In comparison to Europe, the UK was the most open by far in terms of FDI and immigration, and was roughly average in trade.

If we shift to the right column of Figure 6, we are looking at post-Brexit and the red triangles have dramatically shrunk. Now the UK is essentially the lowest or second-lowest in Europe on inward FDI, immigration, and trade. It remains noticeably more open on trade than the Liberal Pacific economies, but not more so on immigration or inward FDI.

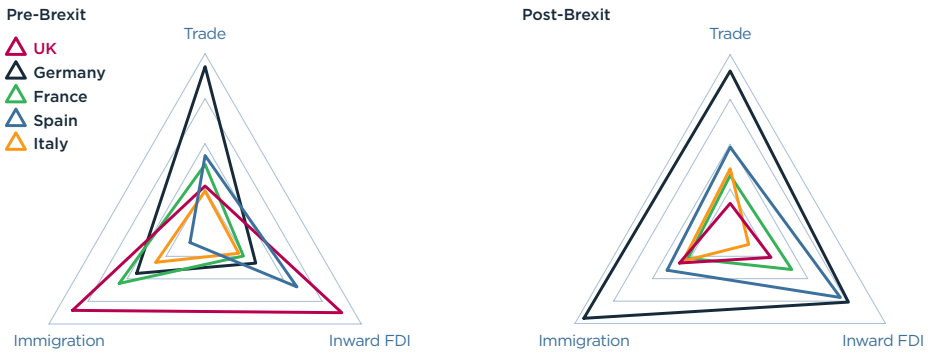
In Figure 7, the dark red triangle in is the current state of the UK, while the hot pink is the previous state of the UK pre-Brexit. The lines in the background are based on the average of countries in the sample. Whether you look at rich countries, EU members, or even non-EU countries, the shrinkage economically of the British world is evident.

4 In work underway, we have been trying to measure what tariffs the UK faces, i.e., measures of not so much how open the UK, is but what access it has to the rest of the world. This is another dimension along which Brexit may well have shifted the economic integration of the UK with the rest of the world.

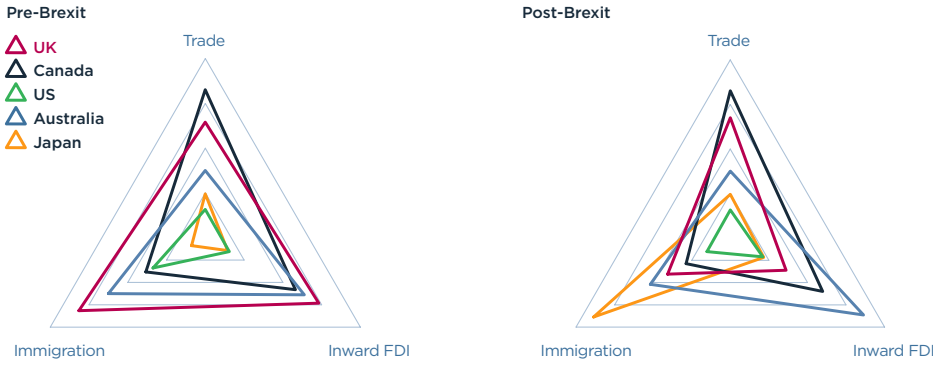
FIGURE 6 THE UK WAS FAR MORE OPEN TO TRADE AND IMMIGRATION, AND ATTRACTIVE FOR FDI PRE-BREXIT

Trade and inward FDI as a share of GDP and immigrant population growth, relative values

a. Europe



b. Liberal Pacific



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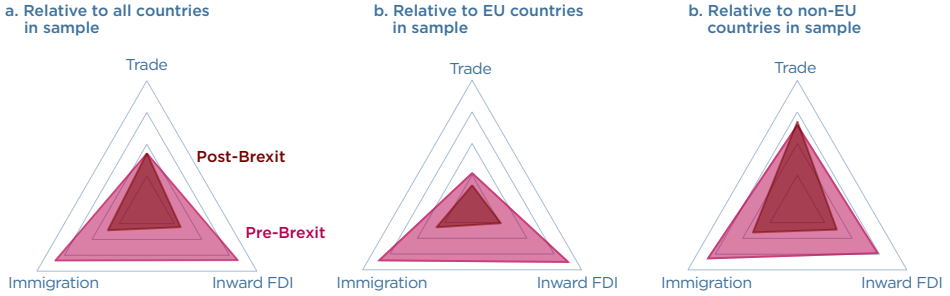
Note: Values show relative position of each country in sample. Pre-Brexit trade is Q1 2016 trade as a share of GDP; inward FDI is 4-year average inward foreign direct investment as a share of GDP, 2013–16; immigration is 6-year average immigrant population growth, 2010–15. Post-Brexit trade is Q4 2021 trade as a share of GDP; inward FDI is 4-year average inward foreign direct investment as a share of GDP, 2017–20; immigration is 6-year average immigrant population growth 2015–20.

Sources: World Bank, World Development Indicators; Organization for Economic Cooperation and Development (OECD); United Nations Department of Economic and Social Affairs.

FIGURE 7 BREXIT HAS STIFLED UK TRADE, FDI INFLOWS, AND IMMIGRATION

UK trade and inward FDI as a share of GDP and immigrant population growth pre- and post-Brexit, relative values



PIIE

Note: Values show relative position of UK in each sample. Pre-Brexit trade is Q1 2016 trade as a share of GDP; inward FDI is 4-year average inward foreign direct investment as a share of GDP, 2013–16; immigration is 6-year average immigrant population growth, 2010–15. Post-Brexit trade is Q4 2021 trade as a share of GDP; inward FDI is 4-year average inward foreign direct investment as a share of GDP, 2017–20; immigration is 6-year avarage immigrant population growth 2015–20. Sample consists of EU countries (France, Germany, Italy, Spain) and non-EU countries (Australia, Canada, Japan, United States).

Sources: World Bank, World Development Indicators; Organization for Economic Cooperation and Development (OECD); United Nations Department of Economic and Social Affairs.

A GRAVITY-RESPECTING STRATEGY FOR GLOBAL BRITAIN

What remains to play for is what economists refer to as the dynamic effects of trade and investment. The dynamic effects are essentially what affects the trend growth rate going forward – it is not just the volume of what you are doing and what inputs you have, it is how well you are using them. The basic concern when one shrinks one's triangle of trade and openness is that you are losing competition internally. Therefore, you get less innovation and less turnover and dynamism in your corporate sector, your investments, and your labour force. Your dynamism also tends to decrease when you lose diversity of talent coming in, diversity of corporate cultures coming in, and so on.[5] Again, in the empirical literature we have, the direct effect of trade on productivity growth is there but not terribly clear. The direct effect of immigration and FDI on productivity growth is quite clear and strong. To the degree that you end up with less competition in the economy, whether through trade restrictions or other means, that definitely negatively affects productivity growth over the long run. The collapse in corporate investment in the UK since Brexit, not recovering as it has in peer countries post-Covid, indicates this coming to pass (Parker and Giles 2022).

Various British politicians and pundits, including the current prime minister, have at times invoked 'Global Britain' as an ideal. But what would it mean to be a Global Britain in the current context? The first thing to be said is that, going back to gravity, the UK is

5 See, among others, Campo et al. (2018), Costas-Fernandez (2018), Mathew et al. (2021), Moran and Oldenski (2013), Posen (2021, 2022), and Sumption (2022).

not likely to expand that triangle of openness much, and certainly not the apex of trade, by making deals with a bunch of non-European economies, at for a decade or more. While the situation has changed a little since observed in 2017, the UK still has more trade with Ireland than with all of the BRICS except China (and even China has only recently just passed Ireland in terms of its share of UK trade). So, it is useful for UK consumers and businesses to do a deal with Australia and New Zealand where the UK gives them side payments to get back to where it was when it was a member of the EU. It is okay to fantasise about a trade deal with India. The UK can certainly, for a bunch of strategic and economic reasons, apply to join the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). But this is all just 'small beer', 'small potatoes', small whatever you want to call it.

So, what should be the Global Britain strategy going forward? The UK is now a relatively small economy in a big world, and it has to adapt. Adapting will be more challenging now than it would have been even a few years ago. As former Prime Minister Harold MacMillan once said, "events, dear boy, events" are what presents difficulties for political leaders. Covid-19 and the Russian invasion of the Ukraine are real events. The anti-globalisation politics in the US that have been building for more than 20 years (Posen (2018, 2021) are a real trend, an event. The rise of China, and with that (by Chinese Communist Party choice, not inevitably) the country's increasingly autocratic actions at home and aggressive actions in global economic affairs, are a real event. When the UK government thinks about what the UK can and should do, it is not just a case of "we hold all the cards in the negotiation" or "we'll just make the best deals we can" – there is a real environment that must be taken into account to determine what is possible and constructive.

As argued in Posen (2022a), a corrosion of globalisation is underway. In a world where China and the US are becoming more domineering and the international rules-based institutions are less reliable, many countries will end up having to choose sides – not entirely like with sanctions on Russia, but similarly – and this will be even more evident in the years to come. After Covid, a very reasonable re-evaluation of global supply chains was already underway due to issues of shortages and resilience. Then comes Russia's invasion of Ukraine, and politicians take it too far but, quite reasonably, businesses decide that they may not want all of their sourcing from one place, or certainly not from places that are geopolitically or ethically suspect. The result of all this is what the Biden administration calls 'friend-shoring,' the EU (or at last France) calls 'strategic autonomy', and what China calls a 'dual circulation strategy.'

The current situation is in some ways analogous to Brexit, in the sense that you can set out the pros and cons and it is entirely reasonable for elected officials or voters to say, "I do not care about the economic consequences as much as I do my values, my sovereignty, my security". But it is also similar to Brexit in that this is a world where trading opportunities are going to be more constrained, where investments will be losing some economies of scale, where you are taking out more self-insurance (which is costly, even if the rational thing to do). All of this lowers your returns on capital; it also reduces competition,

where self-interested special interests and companies will be increasingly able to exploit positions by saying "I am your national (or regional) champion and you have to protect me". At the same time as Britain wants to be self-consciously global, it is getting harder to be so.

Defying gravity leaves you even further out in space if you are not part of one of the increasingly closed or separated big economic blocs. The UK's chances of being ignored, left out, of floating away are increasing. It is increasingly unanchored to anything in economic terms, and the things to which it is anchored, like the WTO or the its alliance with the UK, are becoming politicised and less valuable anchors. This is directional. It is not like the UK is going to disappear as an economy, but it is no longer just about being excluded from some access to the EU market. The UK is certainly not part of the EU's strategic economy plans; and for the US, particularly for manufacturing, it is not clear what advantage the UK has over Mexico or other developing economies that have cheaper wages and potentially more growth.

Given this reality, the way forward for a Global Britain in this world has four elements. First, UK decision makers and informed public opinion have to resist the delusions of the 'imperial hangover' even more so than before. This is a problem for the US, it is a problem for France, it is a problem for every major economy; but it will require more change for the UK. The idea that there is going to be a renewed economic Commonwealth, a special relationship – let alone a free trade agreement – with the US, or a special relationship with India is just fanciful. Worse would be letting the UK's security ambitions and foreign policy grandeur, which still have more justification than its economic ones, drive economic decisions. National security and economics will be joined together in coming years, unfortunately, but probably not in ways that are favourable to the UK. The UK suddenly announced it would be a leader in the WTO or in other economic organisations, whatever that would mean, when no one else was asking for UK leadership. Better to follow constructively – try to make sure that you get to join the right clubs from here on out, and be a good member of those clubs you are in (PIIE 2020, Posen 2021).

Second, to make Global Britain work economically today is to not think so much about trade deals but fundamentally about attracting good labour and capital to the UK. The prospects have not been as badly damaged on these fronts as on trade, despite the shrinkage of openness on these dimensions. We have not seen the total anti-immigration turn that might have followed Brexit; nor have we seen the financial race to the bottom in deregulation that Brexit might have portended. We have even seen, due to tragic other events, at least some sense of turning away from capital inflows that are just forms of money laundering. This is something the UK can build on, and where it can be a leader. For one thing, attracting the students of the world is a very high value proposition. If the US continues to behave as it is currently behaving, the UK's market share here should only grow, and it will mean more to the UK than the US because the UK market is smaller. Similarly, attracting FDI rather than short-term flows of capital may no longer be feasible in the auto sector, for example, but it is feasible in R&D and specialised services.

Third, let gravity pull the UK economy back to earth before its industrial structure ends up floating away. The UK really should go back to a soft Brexit deal, the European Economic Area (EEA) or European Free Trade Association (EFTA). There is no substitute for this – and the corrosion of globalisation is making this even more the case than it used to be. Essentially, regulatory convergence on the European model and accepting that in trade issues the UK is going to become like Switzerland or Norway is really what it should be doing. Go ahead with CPTPP accession, go ahead with other bilateral deals, but what is really going to bring the UK back to earth is – by hook or by crook, quietly or openly – reversing some economic aspects of Brexit.

Finally, the one place where the UK has often lived up to its economic self-image and ideals is being a mediator of sorts between the US and the EU in international economic rule making. Not a mediator in the literal sense of mediating disputes, although that did happen on occasion, but essentially a middle force intellectually between American and European policy proclivities in the economic arena. This is still reflected in the figures above depicting UK openness. While the UK (the shrinking red triangle) has become more closed compared to the big economies of Europe, it remains at least as open, and in some ways still much more open, than the US and the other Liberal Pacific nations. There is room – in particular, in the setting of standards over technology transfer, foreign direct investment, human rights, investment, and financial services – for the UK to play a constructive role that would be in its own self-interest and in the world's self-interest.

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CHAPTER 3

The impact of Brexit on UK–EU trade

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Brexit has led to an unprecedented unravelling of deep economic integration. Although the UK voted to leave the EU in June 2016, its economic relationship with the Union did not change until 1 January 2021, when the Trade and Cooperation Agreement (TCA) governing future UK–EU relations came into effect.

Under the TCA, UK–EU trade is tariff and quota free, but the UK is no longer a member of the EU's Single Market or Customs Union. Consequently, implementation of the TCA has led to higher trade costs due to the re-establishment of a customs and regulatory border between the UK and the EU (Dhingra and Sampson 2022).

Previous research has found that products more exposed to Brexit uncertainty experienced lower trade growth before and immediately after the referendum (Crowley et al. 2020, Graziano et al. 2021). In recent work, we shed new light on the trade effects of Brexit by analysing changes in UK trade with the EU relative to the rest of the world since the referendum (Freeman et al. 2022).

We analyse both the period between the Brexit referendum and the end of 2020, when there was uncertainty over what form Brexit would take, and the first year of trade under the TCA. This allows us to study the trade effects both of news about a future, but uncertain, trade cost increase, and of the realised impact of higher trade costs under the TCA.

We find no evidence of a statistically or economically significant decline in the UK's trade with the EU relative to the rest of the world prior to the implementation of the TCA. However, the introduction of the TCA caused a major shock to UK–EU trade.

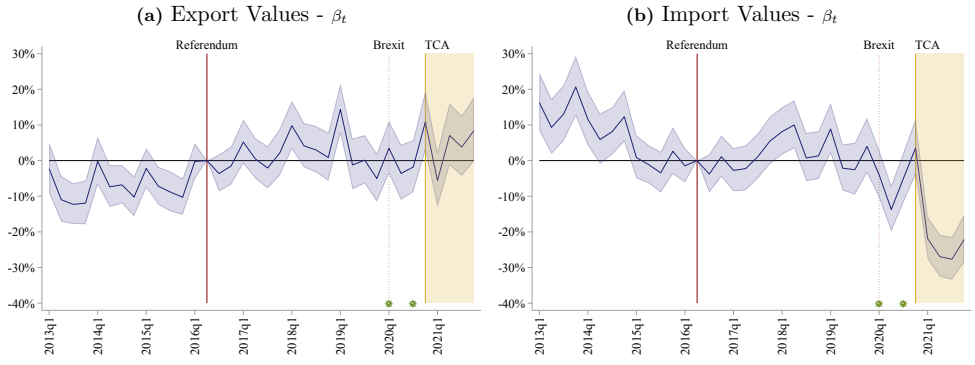
We estimate that the implementation of the new trade relationship led to a sudden and persistent 25% fall in UK imports from the EU, relative to the rest of the world. In contrast, we find a smaller and only temporary decline in relative UK exports to the EU, but nevertheless a large and sustained drop in the number of trade relationships between UK exporters and EU importers. This suggests that the introduction of the TCA caused many UK firms to stop exporting to the EU.

How do we reach these conclusions? The main challenge is to disentangle the Brexit effect from other causes of changes in trade, such as supply shocks that affect trade with all countries and shifts in demand across products and destinations. For example, if the Covid-19 pandemic caused import demand to fall more in the EU than in the rest of the world, the UK's relative exports to the EU may have declined for reasons unrelated to Brexit.

To address this challenge, we use a difference-in-differences event-study methodology. We compare growth in the UK's trade with the EU to the UK's trade with the rest of the world, and to US and EU trade with countries other than the UK. This approach allows us to account for changes in exporter supply and importer demand conditions in the UK and abroad and, consequently, to isolate how Brexit has affected relative UK–EU trade. In addition, to ensure our estimates are not biased by changes in the sectoral composition of trade, we analyse trade at the product level for around 1,200 products.

Figure 1 shows our main results for UK exports to the EU (panel a) and UK imports from the EU (panel b). For each quarter from 2013 Q1 through 2021 Q4, we plot the estimated percent change in the UK's trade with the EU relative to the rest of the world, compared to the pre-referendum period of 2016 Q2. The shaded grey area shows the 95% confidence interval for the estimates to indicate the degree of uncertainty about their precision. In the figure, vertical lines identify the dates of the referendum, the UK's withdrawal from the EU in January 2020, and the start of the TCA. As the timing of the UK's departure from the EU coincided with the Covid-19 pandemic, we also denote the start of the first and second Covid-19 waves in the UK in March and September 2020 with two green virus icons along the horizontal axis.

FIGURE 1 UK TRADE WITH EU VERSUS REST OF THE WORLD



Notes: Panels (a) and (b) plot the estimated percentage changes in UK exports and imports with the EU versus the rest of the world relative to 2016 Q2. 95% confidence intervals are calculated using standard errors clustered at the HS4 product-region level.

Source: Freeman et al. (2022).

What do we learn from Figure 1? Panel (a) shows that, although relative exports to the EU fluctuate from one quarter to the next, there is no sign that Brexit has led to a sustained change in the geography of UK exports, either following the referendum or after the introduction of the TCA. Total UK export growth compared to that of other advanced economies was weak in 2021 (Springford 2022), but our analysis suggests that this weakness cannot be explained by a decline in relative exports to the EU.

Turning to UK imports, Panel (b) shows that, except for a temporary dip at the onset of the Covid-19 pandemic, relative imports from the EU were unaffected prior to the introduction of the TCA. On the other hand, the introduction of the TCA led to a deep and sustained fall in relative UK imports from the EU. UK imports from the EU abruptly declined by about 25% more than UK imports from the rest of the world after the TCA came into effect, and this decline persisted throughout 2021.

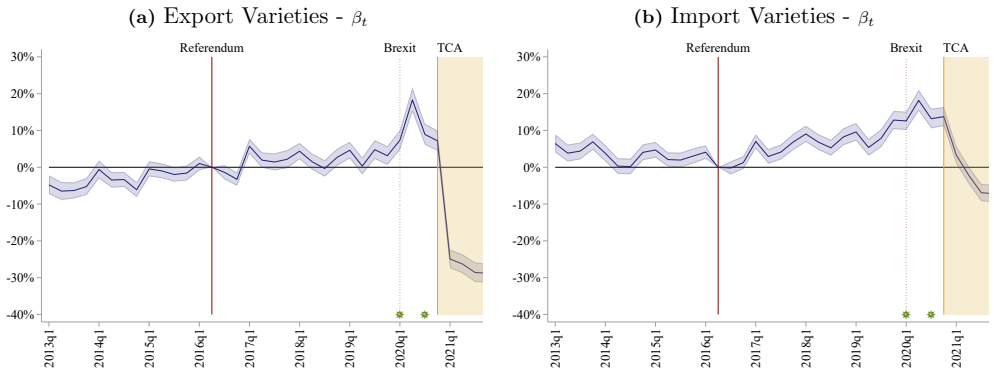
These results provide novel evidence that trade flows are relatively unresponsive to anticipated, but uncertain, increases in trade barriers. In contrast, we uncover patterns consistent with the introduction to the TCA causing a substantial increase in UK–EU trade costs and shifting UK imports away from the EU.

It is surprising that the TCA had a greater effect on imports than exports in 2021, particularly since the UK delayed the introduction of many customs checks on EU imports until 2022. We plan to study the reasons for this asymmetry in future research. For now, we posit that it may relate to UK firms making interdependent input sourcing decisions across origin countries, yet independent sales decisions across destination markets. It may also reflect asymmetric market size effects and changes in fixed trade costs between the UK and the EU.

To further understand the impact of the TCA, we analyse the extensive margin of trade by studying the evolution of the number of trade relationships between the UK and the EU. Although we do not observe the number of firms that trade with the EU, we measure the number of trade relationships by counting the number of 8-digit products traded with each country in the EU (and in the rest of the world) each quarter.

Figure 2 displays the estimated effects of Brexit on the number of trade relationships using the same identification approach as in Figure 1 to isolate the 'Brexit effect'. We find that the introduction of the TCA led to a fall of around 30% in the number of export relationships (or export 'varieties') with the EU relative to the rest of the world and a smaller, but still significant, drop in the relative number of import relationships. The decline in export relationships is driven by the exit of low-value relationships.

FIGURE 2 NUMBER OF UK TRADE RELATIONSHIPS WITH EU VERSUS REST OF THE WORLD



Notes: Panels (a) and (b) plot estimated percentage changes in the number of UK trade relationships with the EU versus the rest of the world relative to 2016 Q2. A trade relationship (or variety) is defined as a CN8 product traded with a partner country in a quarter. 95% confidence intervals are calculated using standard errors clustered at the HS4 product-region level.

Source: Freeman et al. (2022).

Taking these results together, we conclude that the apparent stability in the relative value of UK exports to the EU under the TCA, documented in Figure 1, hides a steep decline in the number of export relationships, driven by the exit of small exporters. Consequently, it would be a mistake to interpret our results as evidence that UK exporters were unaffected by the introduction of the TCA. Instead, we conjecture that the TCA has increased the fixed costs of exporting to the EU, causing small exporters to exit small EU markets, but not (or at least not yet) severely hampering exports by the large firms that drive aggregate export dynamics.

Our analysis has also uncovered substantial variation across products in how the TCA has affected UK trade. We find that relative exports to the EU fell more in 2021 for products with higher EU trade policy barriers, particularly on the extensive margin.

Moreover, when products are classified into capital, intermediate, and consumption goods, we find that the value of UK exports to the EU relative to the rest of the world increased under the TCA for capital and, to a lesser extent, intermediate goods, but there was an offsetting reduction in exports of consumer goods. By contrast, the decline in the UK's relative imports from the EU is broad-based across all three types of goods.

While our research provides a rich description of how Brexit has affected UK trade, there are a number of caveats to consider when interpreting the results. The sample ends in 2021, meaning that we only analyse the first year of trade under the TCA and do not capture its long-run effects. Our findings may thus, in part, reflect temporary changes as firms adjust to the new trading environment. We intend to update the paper and expand our analysis as more data become available.

In addition, our estimation strategy is designed to capture the direct effect of Brexit on the UK's trade with the EU relative to its trade with the rest of the world. We do not analyse whether Brexit has indirectly affected the UK's trade with the rest of the world through general-equilibrium adjustments or supply-chain linkages. Finally, we only study trade in goods, and leave the equally important question of how Brexit has affected trade in services to future work.

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CHAPTER 4

Post-Brexit imports, supply chains, and the effect on consumer prices

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The UK's exit from the EU led to a large increase in barriers to trade with its largest trading partner. January 2021 marked the end of the UK's participation in the Single Market and the Customs Union, and the entry into force of the Trade and Cooperation Agreement (TCA). Goods continue to be traded without tariffs and quotas but the regulatory and customs framework for trade has changed, causing an increase in trade frictions between the UK and the EU, set to be introduced gradually over time.

Current research suggests that Brexit precipitated a 25% fall in imports from the EU (Ayele et al. 2021, Freeman et al. 2022). As around two-thirds of international trade is in intermediate products – inputs to the production of other products (Datt et al. 2011, Johnson and Noguera 2012) – this has major implications for UK firms and workers. Costa et al. (2019) show that changes in intermediate imports due to the depreciation of sterling reduced wages and training in affected sectors, highlighting the importance of intermediate imports in international trade for worker outcomes. Furthermore, imports increase the variety of products available to consumers (Karlsson 2011) and reduce their prices (Jaravel and Sager 2019).

In a recent study (Bakker et al. 2022), we document that UK imports from the EU have fallen both in absolute terms since the referendum and relative to imports from non-EU countries since the TCA's implementation. This is not the case for exports, where trade with the EU has followed a similar path to trade with non-EU countries so far.

There is substantial heterogeneity across products in the effect of Brexit on trade flows, which can be grouped into three common groups of patterns. First, some sectors, such as textiles, experienced a slower rate of growth, if not decline, in UK imports from EU countries compared to that of non-EU countries even before the implementation of the TCA in 2021. This is suggestive of anticipatory adjustments by firms in some sectors. Second, some products experienced a sizeable drop in the UK's trade volume with EU countries compared to that of non-EU countries after the TCA implementation, such as fats and oils, which includes products such as olive oil, sunflower oil, and margarine. Some of these products have experienced changes in their relative trade flows both before

and after the implantation of the TCA . These include cameras, photographic plates, and film. Third, there are some products for which there has been no observable difference in UK–EU trade compared to UK non-EU trade, such as coal, gas, and petroleum oils.

Among the commodities that experienced a disproportionate dip in imports from the EU compared to from non-EU countries, varying patterns are seen in the persistence and timing of the dip . For some products, such as various types of meat including beef and lamb, the dip is followed by a quick recovery back to pre-TCA trade levels. Other products experienced a persistent drop or continued to decline over time, such as coffee, tea, and spices.

In some cases where there is divergence between imports from the EU and from outside the EU, there is evidence that goods have been substituted from EU to non-EU countries. For example, vegetables and textile products experienced a downward trend in imports from EU countries but an upward trend of imports from non-EU countries. In other cases, there is a fall in imports from the EU but no obvious increase in imports from non-EU countries (such as for fruits and nuts). This could either represent a fall in the overall volume of consumption of the good or a switch to domestic providers.

Imports from the EU, relative to imports from non-EU countries, have fallen for goods used as inputs to production in many UK supply chains. Since many firms initially chose to source their inputs from the EU, it is likely to have been their most efficient option, so this reallocation is likely to represent an increase in production costs and a fall in efficiency, as cheaper access to intermediate inputs promotes productivity (Amiti and Konings 2007).

Input-output data from the Office for National Statistics (ONS) provides measures of the importance of each imported input to production for each sector in the UK. Matching this with data on international trade, we construct measures of changes in imports of intermediate inputs from the EU and from outside the EU for each UK sector. Some sectors that rely heavily on imported inputs, such as motor vehicles, have experienced a clear divergence in the source of its imports from the EU to outside the EU.

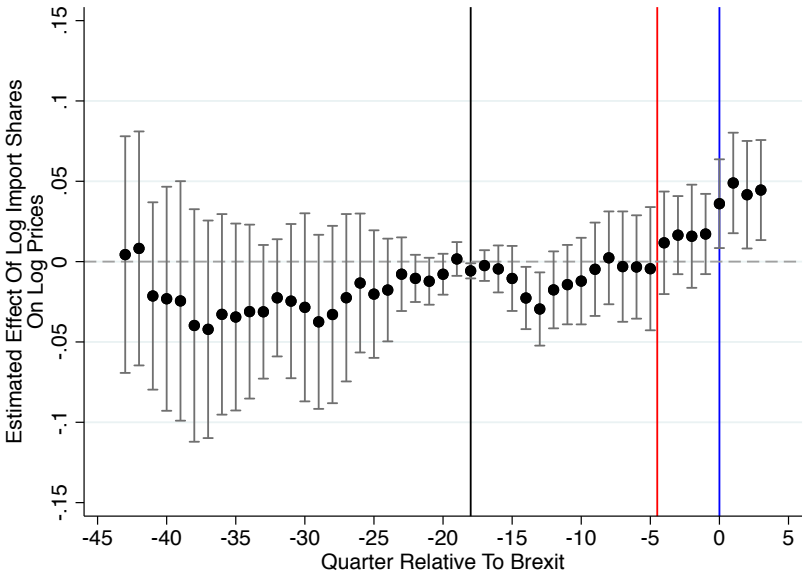
There is also evidence of stockpiling of imported intermediate products just before the implementation of the TCA for some sectors, such as agriculture, fish-related products, pharmaceuticals, and the automotive industry. Industries that were able to stockpile their inputs may have been able to ease the initial frictions of the TCA entering into force.

Additional barriers at the border, such as customs checks, increased waiting times, and additional paperwork, are likely to increase costs to UK importers or EU exporters. These costs may then be passed on to consumers, causing an increase in prices. To quantify the changes in prices due to the rise in trade barriers, we develop a novel dataset that matches ONS micro price data with international trade data for highly detailed products.

Focusing on the food industry, we show that food products that were more reliant on imports from the EU in 2015 saw larger increases in prices than those less reliant on the EU both immediately after the 2019 election – when it was confirmed that the UK would leave the Single Market and Customs Union – and the implementation of the TCA in January 2021. Using a differences-in-differences approach, we estimate a 6% increase in food prices due to Brexit, over the two years to the end of 2021. Products that had high exposure to imports from the EU, such as fresh pork, tomatoes, and jams, experienced a larger increase in prices than those with low EU import shares such as tuna and exotic fruits like pineapple.

Figure 1 shows the results from the event study, which traces out the change in food prices in percentage terms for food products with a high EU import exposure in comparison to those with low EU import exposure, against a reference date of May 2016. The treatment measure is the share of imports in 2015 that came from the EU for each product. The method controls for macroeconomic shocks that affects all food prices, such as Covid-19.

FIGURE 1 IMPACTS OF BREXIT ON FOOD PRICES OVER TIME: EVENT STUDY ESTIMATES



Notes: The figure presents estimates on the relationship between EU import exposure and food prices over time relative to Brexit. Vertical lines represent Brexit-related events: the black line represents the month before the EU referendum, the red line the 2019 general election, and the blue line the commencement of the TCA. Black dots are the estimates of the interaction of the exposure measure and the quarter dummies, and vertical bars represent 95% confidence intervals.

The event study shows that in all quarters leading up to the Brexit referendum and in almost all leading up to the 2019 election, there was no statistically significant difference in price changes between food products that were more or less exposed to imports from the EU. These results suggest that the parallel-trends assumption, required for a causal interpretation using this method, is not violated during the 'before' periods.

The implementation of the TCA aligns perfectly with a sharp, statistically significant increase in prices for more-exposed products relative to those less-exposed. Although the introduction of the TCA coincides with the third national UK lockdown, there is no relationship between the exposure-induced price changes and the timing of the other two lockdowns, nor the easing of restrictions from the third, suggesting that Covid-19 is not driving the results. The statistically significant negative estimates found soon after the referendum result are likely to be driven by the depreciation of the sterling relative to other countries, which was stronger for non-euro currencies (Breinlich et al. 2018).

Despite a strong impact of Brexit on food prices, we do not detect impacts when examining all products together. Impacts are likely more visible on food prices given the nature of the products. First, food products tend to be more perishable, so they are more vulnerable to border delays. Second, food products are close to being finished products in that they do not tend to require many intermediate inputs or labour costs, meaning that there is more likely to be observable passthrough for direct product-level matched data. Third, they are among the most exposed product categories to Brexit-related non-tariff trade barriers, such as sanitary and phytosanitary (SPS) measures which are set to be introduced.

Leaving the Single Market and Customs Union marked a major disruption in the UK's import patterns. In our study, we used data up to 30 September 2021 to analyse changes in trade flows, supply chains, and consumer prices. While full customs checks will be phased-in during 2022 and more data will be collected, we can already conclude that Brexit had a significant short-run effect on consumer prices. The long-run impacts of Brexit, on the other hand, are beyond the scope of this article and are yet to be determined.

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CHAPTER 5

The price impacts of trade agreements

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The United Kingdom's withdrawal from the European Union and subsequent entry into the Trade and Cooperation Agreement (TCA) represents a fundamental shift in the UK's trade relationship with its largest and most important international partner. With inflation rising steeply in 2022, many have asked whether recent price increases can be attributed to Britain's departure from the European Union's Single Market. Although there are no tariffs on merchandise imported from the EU, non-tariff barriers ranging from onerous customs paperwork to establishing compliance with rules of origin have raised the cost of doing business in the UK for EU firms. In this chapter, we examine how changes in market access under a preferential trade agreement impact the market power of exporting firms and the prices they charge.

To gain a better understanding of what is happening in the UK today, we examine the economic impacts of the complex, overlapping network of preferential trade agreements (PTAs) that have come to criss-cross the world over the last 40 years. Economists have employed a range of different methodologies to estimate the trade and welfare effects of these policies. One popular method, the estimation of structural gravity models, has shown that PTAs can increase trade by 44% (Limao 2016) to 58% (Baier and Bergstrand 2007). An alternative methodology, popular among government ministries for ex ante analysis of potential PTAs, is the computable general equilibrium (CGE) model. In the wake of the Brexit referendum, CGE modelling by the UK government found that the losses to the UK's GDP from withdrawing from the EU ranged between 0.6% and 7.7%, with smaller losses associated with scenarios in which the UK maintains a closer relationship with the EU (HM Government 2018).

Both gravity and CGE models, however, overlook the impact that PTAs have on the nature and extent of competition among firms. If a PTA induces more firms to start exporting and so increases competitive pressures in a market, it can reduce the market power of incumbent exporters and bring about price reductions for consumers. This is a pro-competitive effect of PTAs that leads to welfare gains beyond those estimated from structural CGE models. While there is evidence on the competitive effects of trade liberalisations on domestic firms' prices and markups (Konings and Vandenbussche 2005, Amiti and Konings 2007, Pierce 2011, Edmond et al. 2015, De Loecker et al. 2016)

and average prices per unit (Bown and Crowley 2006, Amiti et al. 2019, Fajgelbaum et al. 2020), there is almost no existing work on how the prices and markups of exporting firms change under a PTA.

EMPIRICAL FINDINGS ON PRICE-COST MARKUPS OF EXPORTERS

In new work (Crowley et al. 2022), we examine the pro-competitive gains from trade from a perspective emphasising foreign exporting firms and how the structure of market competition changes under a PTA. Empirically, we integrate information from 257 preferential trade agreements from the World Bank's Deep Trade Agreement database with the universe of customs transactions from eleven low- and middle-income economies to examine firms' entry into foreign markets, market shares, export prices and markups. We find that preferential trade agreements have pro-competitive effects on foreign producers' prices and markups. A PTA which reduces tariffs by 10% leads to a 22% increase in the number of exporting firms, and a 4% reduction in the markups charged by exporters. For highly differentiated consumption goods, the magnitude of the markup reduction increases to 10%.

A NEW MODEL OF TRADE WITH PRO-COMPETITIVE IMPACTS ON PRICES

Based on these empirical findings, we develop a new model of multi-country trade in which price-cost markups vary according to the market structure and the intensity of competition among firms from different countries. In this model, changes in a firm's price-cost markup induced by a trade liberalisation depend on a firm's elasticity of demand – i.e. how much consumers' demand for a firm's output will change when the firm changes its price by 1%. Building on Atkeson and Burstein's (2008) seminal work on international pricing in oligopolistic markets, we show that an exporting firm's elasticity of demand depends on the market structure in the destination, which can be summarised by two different market share measures. The 'within-origin' market share captures the share of an individual exporting firm relative to the total value of exports from the origin to the destination. The 'cross-origin' market share captures the country's market share in a destination relative to the destination's total imports from all origins.

When countries sign a PTA to reduce tariffs or non-tariff barriers to trade, this leads more firms from the PTA's origins to start exporting to the PTA's destinations. This, in turn, causes the average within-origin market share to fall. This means each exporting firm will have less market power relative to competing firms from the same origin country, creating a force that tends to depress price-cost markups. At the same time, an origin country which signs a PTA will enjoy greater market access and gain cross-origin market share relative to non-PTA countries. This implies more market power for the origin country as a whole, which tends to allow exporting firms from this origin to raise price-cost markups.

With these two offsetting forces pushing prices in opposite directions, the net effect ultimately depends on three parameters that capture the substitutability of goods (i) across firms within an origin and product, (ii) across origins within a product, and (iii) across products. Crucially, for realistic values of key model parameters, we find that preferential trade liberalisations lead to intense entry that generates a significant loss of market power for individual firms relative to other firms from the same origin. The within-origin reallocation effect dominates the cross-origin effect, resulting in a reduction in price-cost markups.

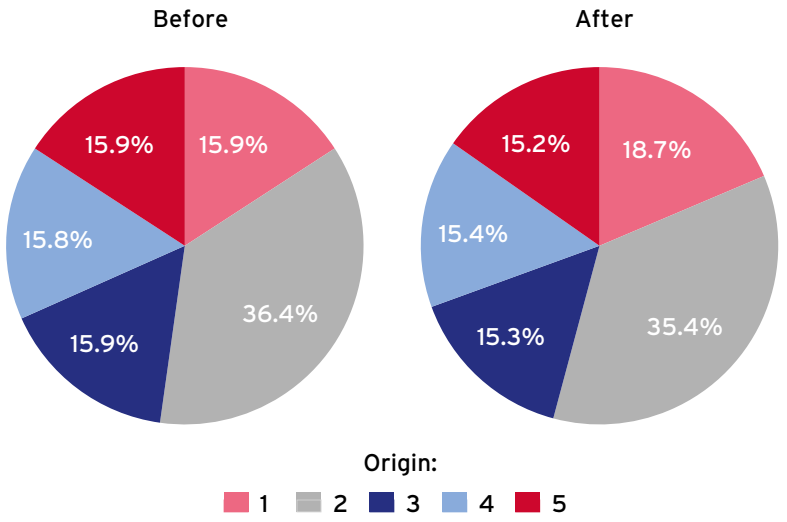
THE IMPACT OF SIGNING A PREFERENTIAL TRADE AGREEMENT ON A COUNTRY'S MARKET SHARE

We use our newly developed model to examine how tariff liberalisations under a PTA impact market structure and price-cost markups. To illustrate how our quantitative model works, we present results from an experiment based on a world with five symmetric countries, which have identical distributions of costs and technology. Each country produces 4,000 distinct goods with about ten domestic firms operating in each goods market, each making slightly different varieties of the good. Initially, all five countries set tariffs of 10% for all goods. We consider the impacts of a simple policy experiment in which two of the five countries sign a PTA that removes all import tariffs on trade with the other country, but leaves tariffs against and among the other three countries unchanged. For concreteness, we will denote the PTA partner countries as 1 and 2 and the non-PTA countries as 3, 4 and 5.

DISTRIBUTION OF FIRMS' WITHIN-ORIGIN MARKET SHARES

Figure 1 depicts the market shares of firms from each of the five countries in country two's domestic market. The left-hand pie chart shows the cross-origin market shares before the PTA and the chart on the right-hand side shows the cross-origin market shares after the PTA. We see that the preferential tariff liberalisation between countries 1 and 2 led to an increase in country 1's market share in country 2, from 15.9% to 18.7%. This gain in market share comes at the expense of competing exporters in countries 3, 4 and 5 as well as country 2's own domestic firms.

FIGURE 1 AGGREGATE MARKET SHARES IN COUNTRY 2



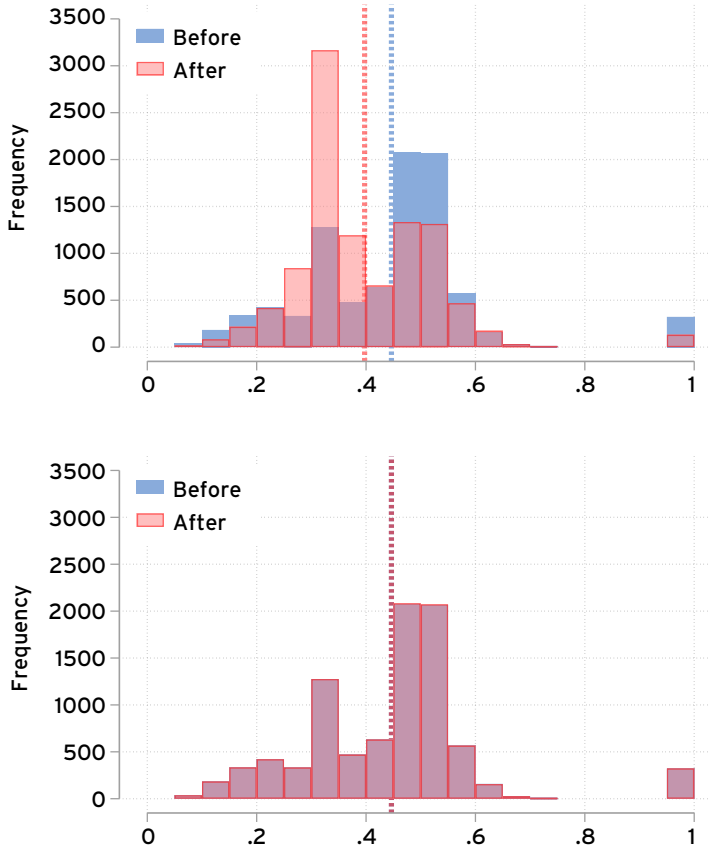
In Figure 2, we present two graphs of changes to the within-origin market shares of firms from country 1 that export to country 2. Beginning with the top panel, which depicts changes in within-origin market shares under free entry, the horizontal axis depicts the market shares of individual firms from country 1 exporting to country 2 and the vertical axis measures the frequency with which firms fall into each market share bin. There are two distinct empirical distributions presented in this chart: the blue distribution depicts within origin market shares before the PTA is signed, while the red distribution depicts the same variable under the PTA. The places where the two frequency distributions overlap are rendered in grey. On the right side of the chart, the mass around 1 tells us that there are a few products where only one firm from country 1 is exporting. Most of the mass in both distributions lies between 30% and 60%. This could arise, for example, for products where two firms from country 1 export to country 2, but also for cases with one larger firm and two smaller ones.

Overall, we can see that the red distribution is shifted to the left of the blue. This tells us that after the PTA induced tariff liberalisation, firms' market shares within an origin have fallen. This is mainly driven by the entry of new firms from origin 1. In our simulated data, we find the number of firms exporting from country 1 to country 2 has risen by more than 10%. This shift is summarised by the mean market share of each distribution, highlighted by the red and blue dashed lines, which falls from 44% before the tariff liberalisation to about 40% after the tariff liberalisation.

The bottom panel of Figure 2 shows the within-origin market shares from a different policy experiment in which, under the PTA, tariffs between countries 1 and 2 fall, but market participation by firms everywhere is fixed. That is, the analysis is conducted under an extreme assumption that no firms enter or exit the market in any country in response

to the new PTA. We can see there is virtually no change in the within-origin market shares under this assumption. This extreme and unrealistic policy experiment is useful in that it allows us to see the important role of firms' entry decisions and consequent changes in market structure on firms' markups, shown in Figure 3.

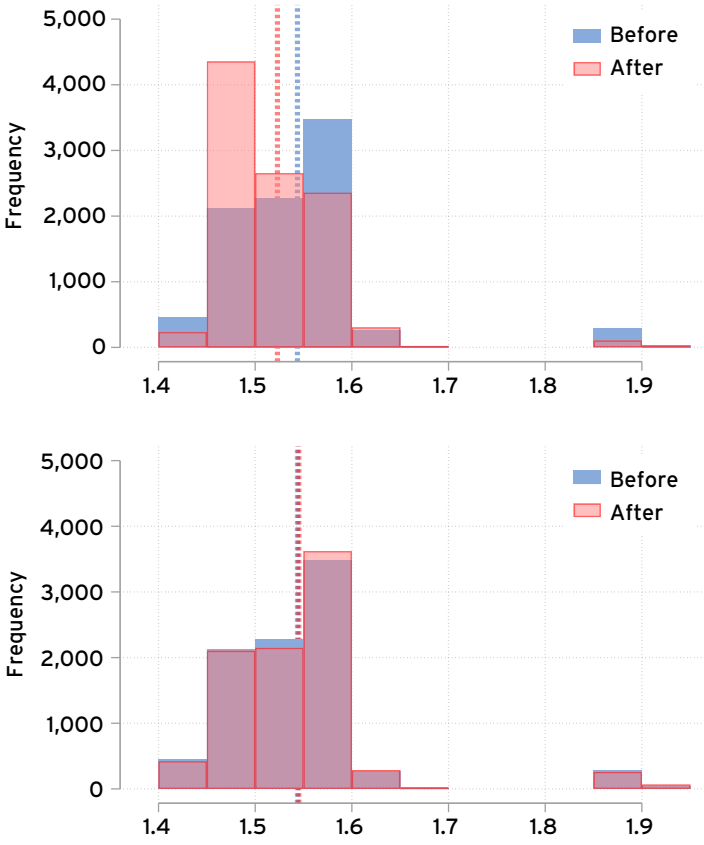
FIGURE 2 DISTRIBUTION OF FIRMS' WITHIN-ORIGIN MARKET SHARES OVER 4,000 PRODUCTS



HOW PRICE-COST MARKUPS CHANGE WITH CHANGES TO MARKET STRUCTURE

The final figure in our chapter presents two graphs of markups charged by firms located in country 1 that export to country 2. The top panel presents markups before and after the introduction of the PTA under free entry, while the bottom panel depicts markups when firm participation is fixed. The horizontal axis measures the markup as a ratio relative to production costs, so that a value of 1.9 indicates a price-cost markup of 90%. The vertical axis measures the frequency of exporting firm observations at each level.

FIGURE 3 PRICE-COST MARKUPS OF COUNTRY 1 FIRMS SELLING IN COUNTRY 2



As in Figure 2, the markup distribution before the tariff liberalisation is shown in blue and after the tariff liberalisation in red. Signing the PTA causes the markup distribution to shift to the left, suggesting that country 1's exporters lower their markups in response to a bilateral tariff liberalisation. The mean markup has decreased from 54% before the liberalisation (blue dashed line) to 52% after the liberalisation (red dashed line).

Finally, the bottom panel shows how markups would have adjusted under the PTA if firms were not allowed to enter or exit in response to the new conditions of the trade agreement. The two distributions almost completely overlap and the average change in the markup is almost non-existent. The central insight from this panel is that entry and exit are important aspects of firm responses to PTAs.

IMPLICATIONS FOR BRITAIN

The PTAs examined in our study reduced tariffs and non-tariff impediments to trade. Because the TCA does the opposite, we might expect that the new hurdles it has introduced could have an anti-competitive or price-increasing effect. Existing evidence shows that

the outcome of the Brexit referendum discouraged entry into exporting between the UK and EU (Crowley et al. 2020) and between Portugal and the UK (Fernandes and Winters 2021), and that the EU stopped exporting many products to the UK altogether after the introduction of the TCA (see the chapter by Rebecca Freeman, Kalina Manova, Thomas Prayer and Thomas Sampson in this book). Together, these findings hint at the possibility of rising market power and price-cost markups among EU firms that continue to export to the UK. Of course, a full assessment will have to wait until firm-level data from 2021 becomes available to researchers. However, at present, the risk of an anti-competitive rise in UK prices brought about by Brexit remains a serious concern.

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CHAPTER 6

Brexit and UK services trade

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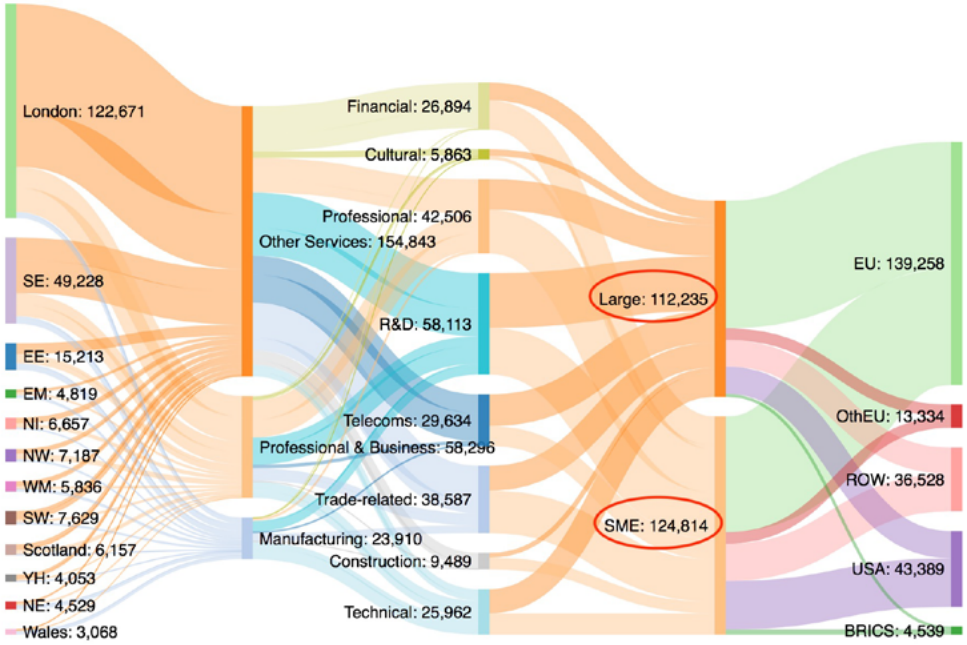
It is impossible to ignore services trade when assessing the costs of Brexit for two reasons. First, the UK is a superpower in services production, and trade and services are too important to its economy to be overlooked. As the second largest service market in the world and the largest in Europe, the UK's services sectors represent 80% of all UK businesses and contribute to around 80% of the UK's total jobs, gross output, and value-added (Douch et al. 2020). The UK's services sectors rely heavily on services exports, with the EU being the main customer (Hall et al. 2020). Financial, professional and business services, and 'other business services' (including research and development, professional and management consulting services, technical and trade-related services) generate a significant trade surplus for the UK, compensating for the large trade deficit in goods.

While financial services are concentrated in London, all UK regions export various types of services, more than half of which are supplied by small businesses (see Figure 1). Importantly, negative shocks to services firms spill over to the wider economy. Depressed business dynamism and eroded household income harm non-exporters as well as exporters in all sectors and all regions. Moreover, weakened services sectors have adverse effect on the networks of services and manufacturing sectors, whose competitiveness increasingly rely on servitisation.

Second, Brexit meant the UK's departure from the world's deepest trade agreement – an agreement which had led to much deeper integration not only of trade in goods, but especially of trade in services. Unlike trade in goods, services trade has no clear fallback position from deep integration: restrictions to services trade are typically not determined by tariffs, but rather by qualifications, permissions, recognition of standards and other non-tariff barriers that may eradicate, rather than reduce, trade in an extreme scenario (Lawless 2019). This means some services might be decimated rather than just disrupted. Given this, it was surprising that the UK's strength in services was not reflected in the government's ambitions for the sector in the EU–UK trade negotiations that followed the referendum (Lowe 2020).

FIGURE 1 UK SERVICE EXPORTS: REGIONS, SECTORS, EXPORTER SIZE AND TRADING PARTNERS, 2011-17 (£ MILLION)



Source: Authors' compilation based on Office of National Statistics, International Trade in Services (ITIS), 2011-2017.

Notes: There are eight different types of services traded by firms (Professional, R&D, Financial, Telecommunications, Construction, Cultural and Trade Related Services); there are five destinations for services trade (EU, USA, Other European Countries, BRICS, and the Rest of the World); the dataset has three broad industry categories (Manufacturing, Professional and Business Services, and Other Service industries); and services firms are located in the regions in the UK classified by NUTS1. Total export and import statistics are in millions of pounds. The overall export value captured by the ITIS over 2011-17 is £237. SMEs refer to businesses with fewer than 250 employees.

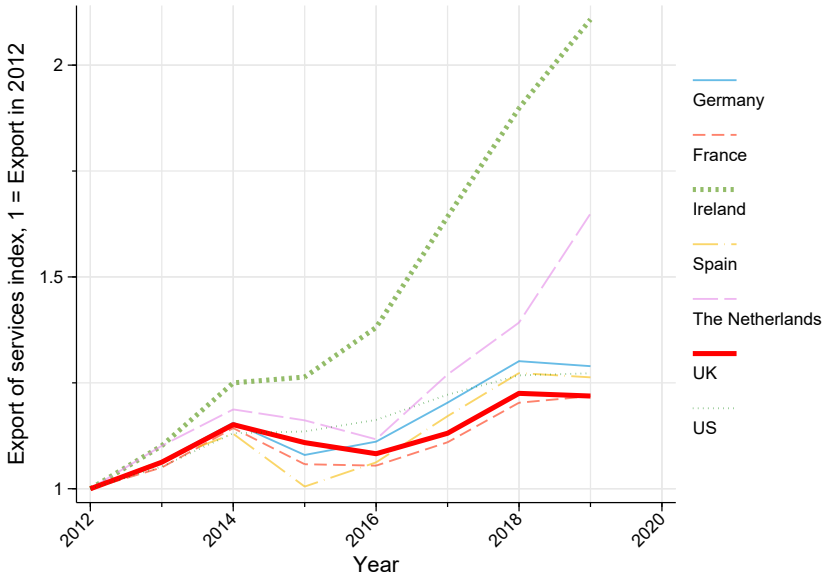
Since the 2016 referendum, the uncertainty over these trade negotiations damaged the UK economy as a whole (Bank of England 2019: 38–43), reduced firms' exports of goods (Crowley et al. 2018) as well as aggregate trade flows (Graziano et al. 2021), and led to trade redirection away from the close, rich and previously frictionless neighbouring EU markets to places further afield (Douch et al. 2019). However, for services trade, there is only limited evidence of the impact.

UK TRADE IN SERVICES

Using the harmonised OECD-WTO Balanced Trade in Services dataset (BaTIS), we observe that the UK's growth in services trade was on a par with major exporters such as Germany, Spain and the US up to 2016. Over time, the UK appears to have lost headway, most apparently after 2016. The UK had been considerably outperformed by Ireland and the Netherlands since 2013 in the global competition for services trade expansion, and the differences in services export growth between Ireland and the UK have only been amplified and reinforced since 2016. By the end of 2019, Irish services exports were 68.6%

higher than in 2014, while the UK's services exports had grown by only 5.8%. The UK has also been outperformed by Germany, the US and the Netherlands. What might explain this stunning success of Ireland as a services exporter compared to the rather moderate performance of the UK, especially after 2015? A reasonable hypothesis is that the UK's EU referendum might have triggered the diversion of services from the UK to Ireland.

FIGURE 2 INTERNATIONAL COMPARISON OF UK SERVICES EXPORTS



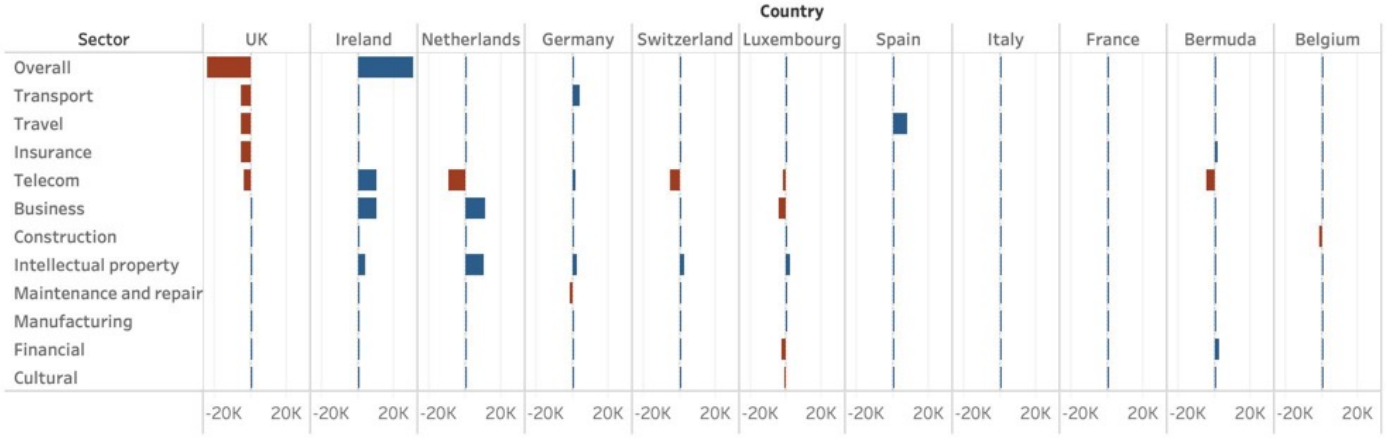
Source: OECD Balanced Trade in Services dataset 2019.

THE BREXIT EFFECT ON TRADE IN SERVICES

To test this hypothesis, our recent paper (Du and Oleksandr 2021b) analyses the causal effect of the Brexit referendum on UK services trade between 2016 and 2019. We adopt a novel method using a synthetic difference-in-differences (SDID) estimator (Archangelskiy et al. 2019) to construct a counterfactual for the UK had it not voted Leave in 2016. The assessment of the Brexit effect is then done by comparing the actual performance of the UK with the modelled performance of this synthetic UK, which looks much like the UK but did not vote to leave the EU.

As shown in Figure 3, we find that the referendum has caused a large negative effect on the UK's services trade. Exiting the EU has resulted in the UK experiencing an average shortfall of £18.5 billion worth of services exports every year between 2016 and 2019 relative to had the UK remained in the EU. This is 5.7% lower than in 2019 and is a more conservative estimate compared to the existing estimates using different data and methodologies of between 7% and 9.2% (Douch and Edwards 2021, Du and Shepotylo 2021a).

FIGURE 3 BREXIT EFFECT ON EXPORTS IN SERVICES, BY EU COUNTRIES AND SECTORS (BILLION USD)



Sector	UK	Ireland	Netherlands	Germany	Switzerland	Luxembourg	Spain	Italy	France	Bermuda	Belgium
Overall	-23,677	30,762	0	0	0	0	0	0	0	0	0
Transport	-5,380	0	0	4,163	0	0	1,351	0	0	0	0
Travel	-4,862	0	0	0	0	0	7,881	0	0	0	0
Insurance	-4,800	1,185	0	1,349	680	0	0	0	0	1,578	0
Telecom	-3,276	10,360	-9,013	1,865	-4,744	-2,026	0	0	0	-4,457	0
Business	0	10,899	11,340	0	0	-4,017	0	0	0	0	0
Construction	0	0	0	0	0	0	0	0	0	0	-1,330
Intellectual property	0	4,318	10,789	2,681	2,540	2,184	0	0	0	0	0
Maintenance and repair	0	0	0	-987	0	0	0	0	0	0	0
Manufacturing	0	0	0	1,026	0	0	0	1,055	0	0	0
Financial	584	0	0	0	0	-2,192	0	0	0	2,790	0
Cultural	587	480	645	717	299	-670	0	0	246	0	0

Note: This is a simplified table for the SDID estimates as sectoral level for each country reported. The estimated coefficients reported in the table are statistically significant at p>0.05. Those not statistically significant are replaced by zeros for visualisation purposes but do not necessarily mean zero effect.

This finding could be attributed to a deterrent effect and the anticipated trade costs of goods (Crowley et al. 2008, Graziano et al. 2018, Douch et al. 2020, Douch and Edwards 2021), or other channels such as FDI relocation (Breinlich et al. 2020) and more generally GDP effects (Born et al 2019), as well as shifts in consumer sentiment from EU towards non-EU products and services (Douch and Edwards 2021).

There are large variations in impact across sectors. A statistically significant decline following the vote for Brexit is seen for exports in "Transport', "Travel", "Insurance" and "Telecom" services in the run up to 2020. However, we did not find a significant decline for "Business Services" and "Intellectual Property Services", or in the "Financial" and "Cultural" sectors.

At the same time, Ireland benefited significantly during this period by expanding its services sector exports. We estimate a resulting growth in total services exports of £24 billion annually over 2016–19 in Ireland compared to a counterfactual scenario where Brexit did not occur. This translates to an impressive 14.75% annual growth over the period of 2016-2019 compared to Ireland's 2019 total services exports level. This growth is particularly concentrated in the "Telecoms", "Business", "Intellectual Property" and "Insurance" sectors.

Ireland's low corporate tax rates for R&D/intangibles encourages knowledge-intensive multinationals. Its global connectivity and open society, and the fact that it is now the only predominantly English-speaking country in the EU, mean that Ireland is attractive to skills and talents migrating from the UK. A likely explanation for Ireland's beneficial effect of Brexit is that it has become an even more favourable location for investment for businesses looking for frictionless access to the EU's Single Market.

There are other winners besides Ireland in some service areas. The Netherlands has increased its "Business" and "Intellectual property" exports considerably, Spain has seen growth in "Travel and transport" services exports, while Germany has gained in "Transport", "Insurance", "Telecom' and "Intellectual property" services exports. Ireland seems to have done exceptionally well in relation to the export of "Telecom" services, in sharp contrast to the lost exports in this sector not just from the UK but also from the Netherlands, Switzerland and France.

POLICY IMPLICATIONS

The economic de-integration resulting from the UK's exit from the EU has led to the erection of new trade barriers between major services-providing countries/regions. The finding of a negative effect of Brexit on UK trade in services as a whole, and in particular in the sectors that enjoyed deep trade liberalisation with the EU, is not unexpected. However, this chapter only discusses the anticipation and deterrent effect of the uncertainty felt by businesses up to the end of 2019. It will take some time for the full impact of Brexit on UK services to emerge.

Since 2019, trading conditions and market access for UK services in the EU have only worsened with entering into the Trade and Cooperation Agreement, since the agreement has a very limited coverage of trade in services. Freedom of movement has ended, which has created hard barriers for many sectors. Trade costs are expected to rise, given regulatory and other discriminatory costs of trading services with the EU. Some firms specialised in certain service types and many small traders are expected to exit the export market. Thus, the trade eco-system has been disturbed and a restructuring of new networks may be underway. We are yet to understand the implications of this.

Further, there is still high uncertainty surrounding the future UK–EU services trade relationship. The financial sector may not obtain equivalence to allow transactions to flow freely. Digital data flows between the UK and EU, and digital flows between the UK and third non-EU countries with EU businesses as related parties, could still be restricted in the future. Embedding a provision on free data flow in future trade agreements would encourage investment flows. Stability, transparency and regulatory consistency in financial markets could be challenged. Engaging in regulatory liberalisation to enhance the UK's competitiveness as an investment destination and as a services provider will therefore be crucial.

On the other hand, new opportunities might surface. Continued trade negotiations and dialogues regarding trade liberalisation are essential with both the EU and large, fast-growing markets beyond Europe. However, it is important to remember that, in general, liberalising services trade more challenging than liberalising trade in goods. It is extremely hard, if not impossible, to foresee future preferential trade agreements achieving new and better market access in a significant way (Lowe 2021). Even for services trade, the gravity rule, according to which trade declines rapidly with distance, still applies (Springford and Lowe 2018). Preserving goodwill, rebuilding trust and keeping the dialogues open with its nearest and the largest trading partners should clearly be the most important items on the agenda for the UK to reduce barriers and promote mutual benefits in future trading relationships.

Crucial to understanding these impacts are reliable data and rigorous analysis, which have always been a challenge for services trade. It will take even longer for economists to measure the full impact of transitioning to the new UK–EU trade relationship with reliable services trade data, but at least the work has begun.

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CHAPTER 7

The economics of UK financial services post Brexit

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University of Nottingham

As an EU member state, the UK developed significant EU exports in financial services. By 2019, the EU accounted for 40% of UK financial services exports (£24 billion) and 32% of UK financial services imports (£6 billion). This contributed to a trade surplus in financial services of £41 billion. EU–UK financial services trade at this time was underpinned by passporting arrangements. Passporting allowed firms to sell their services into the EU from their UK base without the need for additional regulatory clearances.

The UK financial services sector was split with regards to Brexit. Whilst the majority of financial service providers, particularly in the areas of banking and insurance, generally favoured remaining in the EU, other parts of the sector – notably hedge funds – identified opportunities through domestic regulatory control within the UK that leaving the EU would bring. This division has been identified as a contributory factor to the very limited provisions agreed between the UK and the EU on financial services trade in the Trade and Cooperation Agreement (TCA) and associated declarations (e.g. James and Quaglia 2019).

Without Single Market access through passporting, financial services trade between the UK and the EU has become much more difficult than it was before Brexit due to the increase in non-tariff barriers (Heneghan and Hall 2021, Lavery et al. 2018). However, financial services had a longer lead-in to Brexit than some other sectors, and this allowed preparations to be made by businesses to avoid a cliff-edge Brexit and associated systemic financial instability.

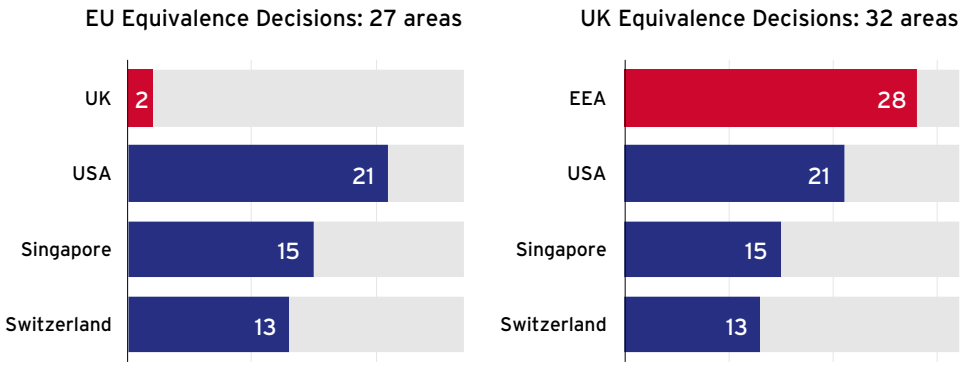
Following the Political Declaration of October 2019, agreed by the UK and the EU alongside the Withdrawal Agreement, it was clear that UK financial services would lose their passporting rights into the Single Market. It was also clear that these would not be replaced under the terms of the TCA and that, instead, Single Market access for UK firms — and access to the UK market for EU firms — would be governed through equivalence decisions.

Equivalence is not decided through bilateral negotiation but by each party independently deciding what access it will grant. Equivalence does not provide a full replacement for passporting. Even if it is granted, equivalence as set out by the EU does not cover the full range of financial services. Core banking services, such as lending, payments and deposit taking, are excluded. Neither does equivalence grant permanent access rights; the EU can withdraw equivalence determinations with 30-days' notice.

Given that the UK was equivalent to the EU up until the point it left the Single Market, it could have technically expected the EU to make positive equivalence determinations. However, the EU has taken a restrictive approach, reflecting its concerns that the UK is seeking to obtain competitive advantage through divergence from EU regulation in the future. The EU only granted time-limited equivalence decisions for derivatives clearing (initially for 18 months but now extended until the end of June 2025) and settling Irish securities (for an initial six months and now expired). Both these decisions were driven by the need to avoid short-term disruption in cross-border UK–EU financial services trade.

In contrast, the UK Chancellor, Rishi Sunak, announced in November 2020 that the UK would pursue a more liberal approach, granting equivalence from 1 January 2021 to EEA-based financial services in a range of areas (as shown in Figure 1). This reflects the UK's wider strategy of significantly liberalising inbound services trade. The UK has also made clear that its approach to equivalence differs from that of the EU, implicitly criticising the EU's approach in the process. For example, as part of a broader emphasis on the importance of transparency and outcomes within the UK's approach to equivalence, the Treasury has said that the withdrawal of equivalence would be considered only "as a last resort" and would be accompanied by adaptation periods, rather than the 30 days' notice period of the EU approach.

FIGURE 1 UK AND EU EQUIVALENCE DECISIONS WITH SELECTED JURISDICTIONS AT THE POINT OF UK EXIT



Source: European Commission (10/02/2021); HM Treasury (14/01/2021.

The limited number of equivalence decisions granted by the EU means that UK financial services trade has less Single Market access than other leading international financial centres such as New York and Singapore. The profoundly different equivalence regimes being applied to the UK suggests that the EU's approach to the UK may be motivated more by concerns about developing its own competencies in financial markets than by the merits of the UK's domestic approach to regulation.

The UK has implemented a Temporary Permissions Regime, currently scheduled to run for three years until the end of 2023 although it is scheduled for review and possible extension. This allows EEA firms and funds that were using a passport to access the UK market during the transition period to continue to do so, provided they notified the Financial Conduct Authority that they would use the permissions regime before the end of transition. There is no equivalent EU-wide scheme for UK firms operating in the EU, although some member states, such as Ireland and Denmark, have established temporary permissions for UK firms that were passporting into particular parts of financial markets for specific periods of time from 1 January 2021.

As it became clear during the trade negotiations that the UK's passporting rights would be withdrawn and replaced by limited equivalence decisions, financial services' activity began to relocate from London to European cities, notably Frankfurt, Amsterdam, Luxembourg, Paris and Dublin, as well as other global centres such as New York. Although official statistics do not track these relocations systematically, a range of other information sources reveals the changes to date.

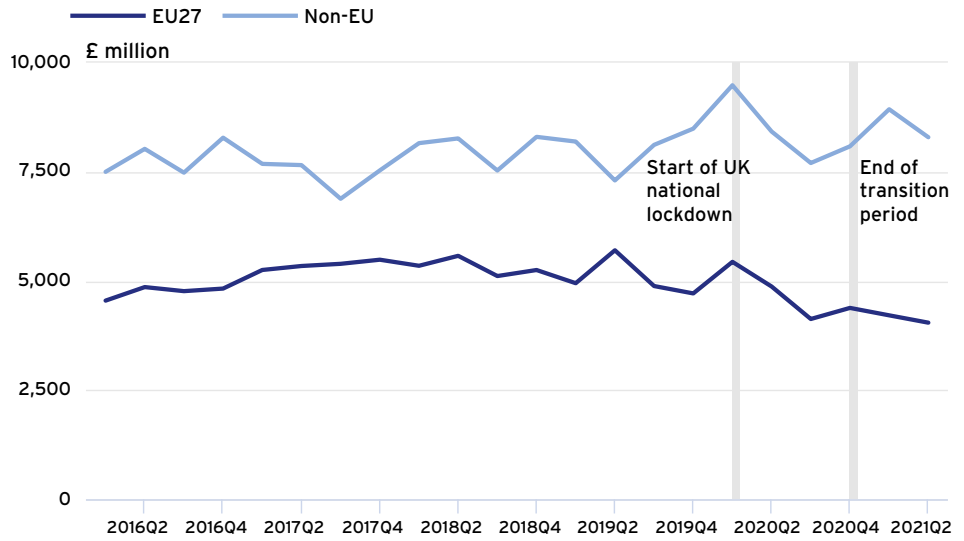
Latest figures indicate that between 7,000 and 7,500 jobs in financial services have left the UK for the EU since 2016 involving relocations from within 440 firms.[1] This is a small proportion of the 1.1 million jobs in financial services across the UK. The figures also do not account for new jobs created outside the UK that would have been in the UK without Brexit. Bank assets valued at £900 billion have been relocated, equal to around 10% of the UK's banking system, although this does not translate into a commensurate relocation of economic activity (as measured by employment or value-added).

Instead, there is evidence of different specialisations emerging, with Frankfurt dominating in banking and Dublin in asset management relocations. Amsterdam has dominated in the relocation of activity that supports financial market transactions — so-called market infrastructure. Amsterdam overtook London as the primary location for European share trading in January and London's derivatives platforms lost three-quarters of their euro volumes to Amsterdam and New York.

1 Source: New Financial (2021) and EY Financial Services Brexit Tracker 2022 (www.ey.com/en_uk/news/2022/03/ey-financial-services-brexit-tracker-movement-within-uk-financial-services-sector-stabilises-five-years-on-from-article-50-trigger).

Recent figures from the Office for National Statistics show that a realignment of UK trade in financial services away from the EU to other geographical markets appears to be underway (Figure 2, ONS 2021). Between 2Q2019 and 2 Q2021, non-EU exports of financial services increased by £0.5 billion (5.1%) and imports by £0.01 billion (0.4%). Over the same period, EU exports declined by £2.0 billion (-30.6%) and EU imports by £0.3 billion (-21.3%). ONS analysis suggests that the decline in financial services trade with the EU is being driven by declines in exports to France, Ireland, Germany and the Netherlands.

FIGURE 2 EXPORTS OF EXPLICITLY CHARGED AND OTHER FINANCIAL SERVICES TO EU AND NON-EU (2016Q1-2021Q2)



Source: ONS (2021).

The prospects of this trade realignment reversing appear limited. The TCA is accompanied by a non-binding Joint Declaration committing the UK and the EU to cooperation on matters of financial regulation. This is intended to be facilitated by a memorandum of understanding (MoU). However, although the UK government announced that the technical discussions underpinning the MoU had successfully concluded in March 2021, no formal text has emerged.

An MoU is not unique to UK–EU trade in financial services. Similar commitments are in place between the EU and the US and Japan, for example. However, a general commitment to regulatory cooperation is no replacement for certainty regarding Single Market access for UK financial services firms.

Further equivalence decisions from the EU do not appear likely. Despite the UK being equivalent at the point of departure, the EU has paused the process until it is satisfied regarding the operation of the Withdrawal Agreement and the Northern Ireland Protocol.

The EU is also keen to attract more financial services activity into the Single Market, partly in order to prevent possible systemic risks associated with not having core financial market activity that it relies on outside its own regulatory border. This is particularly true in relation to clearing. Currently, the one area of equivalence granted to the UK by the EU is in clearing, which is due to expire in June 2025. This allows EU traders to use the more liquid clearing infrastructure available in London. The EU granted this to prevent market instability at the end of transition, but it needs to develop its own capabilities in this area. In a sign that this has proved difficult, the European Commission has extended this equivalence decision until the end of June 2025. The Commission intends to use this time to develop plans to develop central clearing activities within the EU by developing the competitiveness, cost efficiency and liquidity of the EU as a clearing hub. The extent to which this is possible remains uncertain given the market benefits of the liquidity and legal framework for clearing in London, which makes clearing more cost effective through the so-called netting of transactions.

Meanwhile, there are indications that the UK will diverge from EU financial services regulation. In his Mansion House speech in the summer of 2021, Rishi Sunak appeared to confirm that the UK intends to prioritise regulatory freedom over potentially enhanced Single Market access for financial services. Further details of how such regulatory opportunities will be exploited by the UK were set out in Sunak's "New Chapter for Financial Services" published in July 2021. This identifies both sectoral and geographical foci for financial services post Brexit, with Sunak arguing that the UK should "push for closer co-operation and more cross-border access with other like-minded financial centres in markets around the world".

In terms of sectoral foci, the UK Treasury is keen to cement the UK's position as a global FinTech hub and is also working to make the UK the main global centre for sustainable finance. Work on FinTech has coalesced around the Kalifa Review that seeks to support the FinTech sector through 15 recommendations across five policy areas: policy and regulation; skills and talent; investment; international attractiveness and competitiveness; and national connectivity. Recent data show that in 2021 the UK was second to the US in terms of investment in FinTech. Concerns remain, however, about the supply of highly skilled labour in this area, as FinTech was particularly reliant on EU nationals.

The UK government is also eager to develop the UK's leadership position in green and sustainable finance. The government published its Green Finance Framework in June 2021, setting out plans to finance expenditures on sustainable technologies and infrastructure through the issuance of green gilts and the retail Green Savings Bond launched in October 2021. The inaugural sale of two green gilts raised £16 billion in October 2021. The government has also published its Greening Finance Roadmap, which sets out the plans for economy-wide Sustainability Disclosure Requirements (SDR) in

which firms across sectors will need to report on sustainability. It also includes plans for a UK 'green taxonomy' to list all economic activities that UK regulators consider to be environmentally sustainable.

At one level, this roadmap reflects the UK's post-Brexit ambitions to use its new-found domestic regulatory control to set international financial standards through engaging with and shaping international regulatory architectures. The roadmap includes provisions to align the UK's new SDR with the international Task Force of Climate-Related Financial Disclosures framework, which was developed at an international level with significant input from the UK through the Financial Stability Board.

The green taxonomy is essentially a classification system that set out the criteria that economic activities need to meet to be classified as environmentally sustainable. The structure of the UK's taxonomy will draw on the existing EU green taxonomy to which the UK contributed as a member state, but will "take an approach that is suitable for the UK market and consistent with UK government policy". This signals the possibility of divergence in approach and/or scope from the EU.

In terms of geographical reach, the UK has adopted a bilateral strategy based around regulatory dialogue. So far, the UK has agreed a UK–Singapore Financial Partnership aimed at using regulatory cooperation to increase bilateral financial services trade. The UK has also announced that it is pursuing mutual recognition of regulatory standards with Switzerland. This is an important set of negotiations because, if agreed, it would facilitate financial services trade liberalisation similar to that within the EU — including passporting between the UK and Switzerland — but on a bilateral basis and without the political architecture of the EU. As such, it is seen as a potential template for UK financial services agreements elsewhere.

In terms of new trade deals, the UK–Japan Comprehensive Economic Partnership Agreement (CEPA) signed in October 2020 contains some important financial services elements that are not generally contained in trade agreements. For example, it prohibits requirements that mandate the local storage of data held by firms (with some exceptions for public purposes) and includes measures to facilitate the free transfer of these data between the two countries. Data mobility is important in banking and payment businesses that operate across multiple jurisdictions and is becoming increasingly important with the growth of digital payments. The free trade agreement with Australia, agreed in June 2021, includes an annex aimed at fostering regulatory cooperation on financial services regulation.

However, there are some policy areas, notably in relation to EU regulation on bankers' bonuses, where the UK could now diverge from the EU but has chosen not to do so – a reflection of the domestic political optics of not being seen to use a Brexit regulatory dividend to enhance bankers' salaries, while at the same time emphasising government ambitions to 'level up' the UK economy.

In sum, a deregulatory race to the bottom, or a form of widespread deregulation as happened under the Big Bang in the 1980s, seems unlikely in UK financial services. Piecemeal regulatory changes will and are being made, particularly where they link to other key policy objectives in relation to digital and green growth. Even so, it seems likely that these changes will not be sufficient to offset lost financial services exports to the EU. It will take some time to assess this outcome, but it does seem likely that London will be a smaller, albeit still large, financial centre in the medium term.

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CHAPTER 8

The economics of the UK's post-Brexit immigration system

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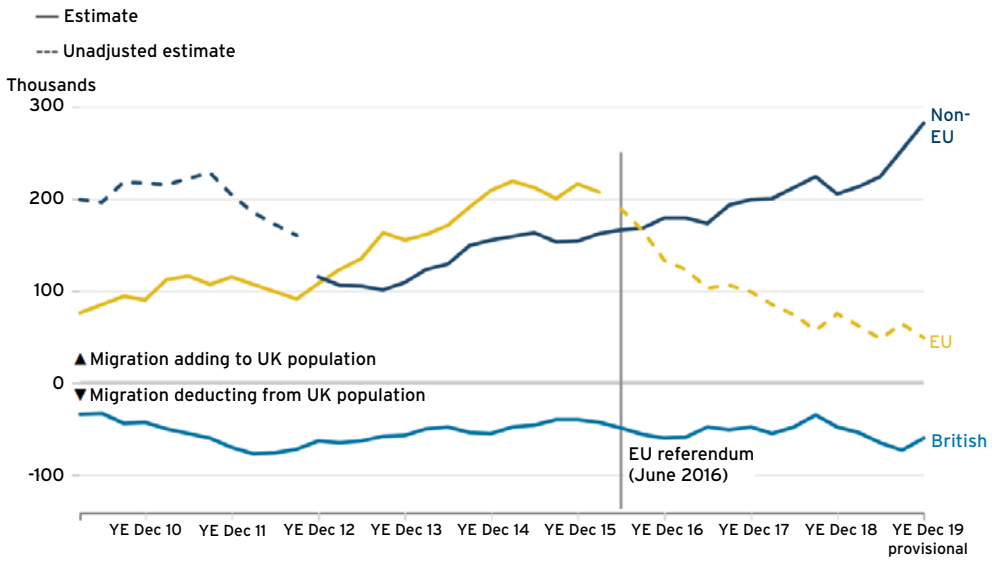
Immigration was central to the politics of Brexit (Hobolt 2016) but was peripheral in the pre-referendum discussion of its economic consequences (Portes 2016). Indeed, both before and in the immediate aftermath of the referendum, the UK's choice was often framed as a trade-off between the economic costs of increasing trade frictions between the UK and EU on the one hand, and the political benefits of ending free movement and restoring 'control' over immigration on the other (e.g. Baldwin 2016). Many policymakers believed it would be clearly in the UK's economic interests after Brexit to retain most or all of the benefits of membership of the Single Market – either by maintaining membership of the European Economic Area (like Norway) or via a series of bilateral agreements (like Switzerland).

But the UK government, first under Theresa May and then Boris Johnson, rejected such an approach, making clear 'we are not leaving the European Union only to give up control of immigration'. This position meant in turn that the EU never seriously considered what, if any, compromises it could make on free movement. Instead, the EU underlined the fact that free movement was an integral part of Single Market membership. In that sense, the politics of immigration and free movement were the key driver of the shape of the UK–EU post-Brexit economic and trading relationship, as now enshrined in the Trade and Cooperation Agreement.

Since the referendum, immigration has become a much less salient political issue and public attitudes towards immigration have become more positive (Runge 2019). However, its economic significance has become more apparent, first as migration flows from the EU fell sharply and then, over the course of the Covid-19 pandemic, as substantial numbers of EU-origin workers returned to their countries of origin. Forte and Portes (2017) forecast that net EU migration could fall by up to 150,000 over the period between 2016 and 2020. These forecasts proved broadly accurate; net EU migration did indeed fall by slightly more than 150,000 by the end of 2019.

FIGURE 1 NET MIGRATION BY CITIZENSHIP, UK, YEAR ENDING MARCH 2010 TO YEAR ENDING DECEMBER 2019



Source: UK Office for National Statistics, 2020

At the same time, there was also a significant rise in non-EU migration, facilitated by government policy, with the cap on Tier 2 visas for non-EU migrants (that is, relatively skilled or highly paid workers) being relaxed. This marked the end of the Theresa May era in immigration policy, during which the overriding objective had been to reduce numbers. So, at the beginning of 2020, net migration to the UK remained high, although the post-2004 trend for EU migration to partially displace non-EU migration had in part been reversed. The onset of the Covid-19 pandemic, however, led to a very sharp reversal of migration flows.

While the International Passenger Survey, which forms the basis for migration statistics, has been suspended, the Labour Force Survey provides data on non-UK-born people resident in the UK, while HMRC publishes statistics on employees. The latest published data suggest a fall of about 200,000 in the EU-born resident population, driven by a fall in the number of EU-origin workers. While these estimates are highly uncertain, there is little doubt that there has indeed been a large outflow.

Given the nature of the pandemic and its economic and social impacts, this is not surprising. Migrants, especially from Europe, are disproportionately likely to be employed in the hospitality sector and other service sectors that require face-to-face contact, so were more likely to have been furloughed or lose their jobs. With many universities moving wholly or largely to online teaching, many foreign students decided not to come to the UK or to return here.

It is against this background that the UK introduced the new, post-Brexit immigration system, concurrently with the implementation of the Trade and Cooperation Agreement in January 2021. Portes (2022) discusses the new system in detail, and outlines some of the potential implications. As set out in Portes (2020), it was shaped by two broad forces. The first was the government's commitment to ending free movement and to a system which would treat EU and non-EU migrants similarly. But second were significant positive shifts in both public opinion and government policy towards immigration in general. The replacement of Theresa May with Boris Johnson, who had adopted relatively liberal positions on immigration during his tenure as Mayor of London, signalled a change in the relative priorities within government attached to the economic benefits of immigration compared to the political need to be seen to be controlling it.

The policy intent of the new system was therefore less about reducing migration and more about making it both more geographically diverse and more selective. With the end of free movement, the new system applies to all those moving to the UK to work, apart from Irish citizens. EU (and EEA/Swiss) nationals resident in the UK prior to January 2021 were eligible to apply to remain indefinitely under the 'settled status' scheme; well over 5 million have done so.

The key provisions of the new system are that:

- New migrants should be coming to work in a job paying more than £25,600 or the lower quartile of the average salary, whichever is higher, and in an occupation requiring skills equivalent to at least A-levels ('RQF3').
- There is a lower initial threshold for PhDs, new entrants, and for those in shortage occupations, meaning that for some occupations the salary threshold may be as low as about £20,000.
- Medical professionals, including doctors, nurses, and some technical staff, can apply for a new, simpler and cheaper, Health and Care Worker visa; this was extended to social care staff in early 2022.
- There is an expanded Seasonal Agricultural Workers Scheme, but no general sectoral schemes for other workers who do not meet the skill threshold. However, a number of small ad hoc visa schemes have since been introduced
- The visa provisions for students have not changed significantly. However, Brexit also means that EU-origin students are no longer treated similarly to UK-origin ones but rather to non-EU ones, meaning that they have to pay much higher fees.
- Moreover, a new 'Graduate' visa has been introduced, similar to the 'post-study work route' visa abolished by Theresa May, which allows international students graduating from UK universities to stay on and work in essentially any job, for up to two years.

The new system represents a very significant tightening of controls on EU migration compared to free movement. Migrants coming to work in lower-skilled and paid occupations are, in principle, no longer able to gain entry. Even those who do qualify will need their prospective employers to apply on their behalf, will have to pay significant fees, and will, as is the case for non-EU migrants at present, have significantly fewer rights – for example, in respect of access to the benefit system.

However, compared to the current system, the new proposals represent a considerable liberalisation for non-EU migrants, with lower salary and skill thresholds and no overall cap on numbers. Approximately 68% of UK employees work in occupations requiring RQF3 level skills or above. Given the requirement for new migrants to be paid at or above the lower quartile of earnings for that occupation, that implies about half of all full-time jobs would, in principle, qualify an applicant for a visa. This represents a very substantial increase – perhaps a doubling compared to the previous system for non-EU nationals, which was also for most of the 2012-19 period subject to an overall quota and a resident labour market test. It also makes the new system considerably more liberal with respect to non-European migrants than that of most EU member states, which typically apply much more restrictive (de facto and/or de jure) skill or salary thresholds, and often enforce a resident labour market test. The provisions for international students after completing their studies are also relatively liberal.

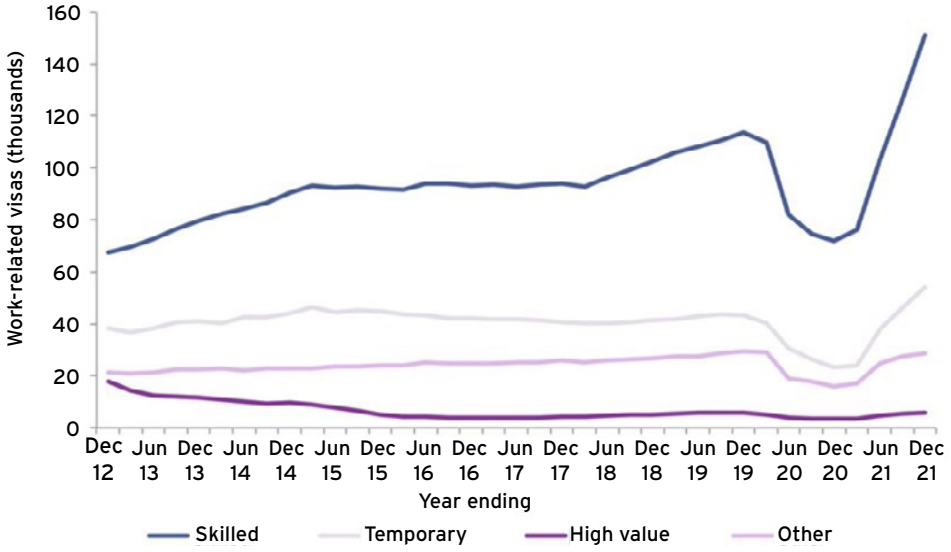
So, the new system does not represent an unequivocal tightening of immigration controls; rather, it rebalances the system from one which was essentially laissez-faire for Europeans while quite restrictionist for non-Europeans, to a uniform system that, on paper at least, has relatively simple and transparent criteria.

We now have a full year's worth of data on the operation of the new system.[1] While interpretation is clouded by the continuing impact of the pandemic and the subsequent reopening, a number of key points emerge:

- Work-related migration has recovered strongly. As with the broader economy – where worries about persistent long-term unemployment have been replaced with concern about skill and labour shortages – there is no evidence that the pandemic has had any permanent negative impact on immigration. And the liberalisation of policy towards non-EU citizens is already evident. The introduction of the Health and Care Worker visa has had a big impact, with about 65,000 such visas issued in 2021. As before the pandemic, India is by far the largest single source country for work visas, making up about 40% of the total and dominated by the ICT sector. But there are big increases for Nigeria and the Philippines, probably reflecting the Health and Care Worker visa; the Philippines is the largest source country for nurses in the world.

1 https://www.gov.uk/government/statistics/immigration-statistics-year-ending-december-2021

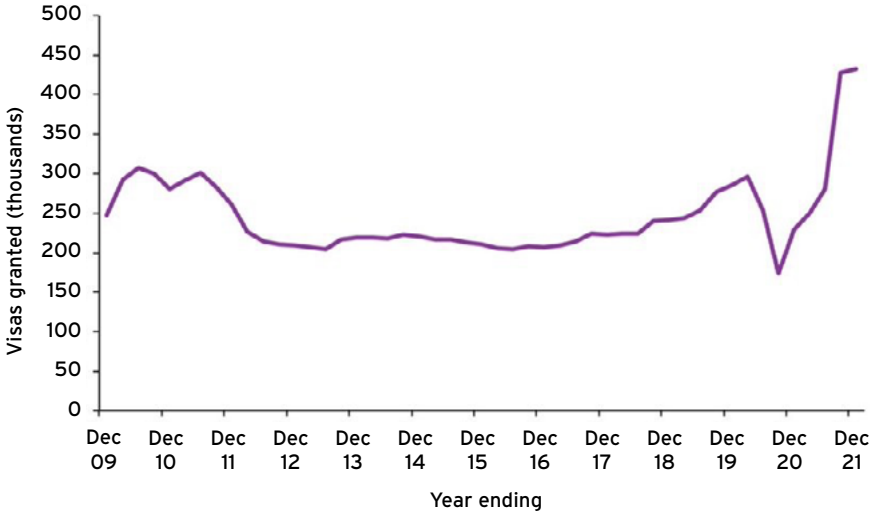
FIGURE 2 WORK-RELATED VISAS GRANTED BY VISA TYPE, YEARS ENDING BY QUARTER BETWEEN 2012 AND 2021



Source: Home Office.

- Student visa numbers have increased to above 400,000, up about 50% on pre-pandemic levels. Particularly large increases are visible for Indian, Pakistani, and Nigerian students. The UK has clearly gained in relative attractiveness to international students; in part, this may be because of restrictive measures imposed by competing markets, such as Australia and the US. The new 'Graduate' route may well be perceived as attractive, especially to those coming from the countries which have seen the largest increase. So far, only about 12,500 visas have been issued under this route, but the numbers are likely to grow.

FIGURE 3 SPONSORED STUDY VISA GRANTS, YEAR ENDING BY QUARTER, 2009-2021



Source: Home Office.

- EU citizens make up only a little more than one in ten work visas, and 5% of student visas. In part, this may be because many EU citizens coming here had already acquired settled status based on a past period of residence here, and some of those intending to move here in 2021 would have tried to get here in 2020 so as to be eligible for settled status. The proportion of work and study visas going to EU citizens is likely to rise in future.

TABLE 1 TOP FIVE NATIONALITIES GRANTED SPONSORED STUDY VISAS, 2029, 2020, AND 2021

Nationality	2019	2020	2021	Percentage change 2019/2020	Percentage change 2020/2021
China	119,825	81,268	119,334	-<1%	+47%
India	37,396	52,010	98,747	+164%	+90%
Nigeria	8,384	12,845	43,200	+415%	+236%
Pakistan	4,927	6,432	17,533	+256%	+173%
United States	14,837	8,339	15,623	+5%	+87%
Other nationalities	99,352	68,072	137,842	+39%	+102%
Total	**284,721**	**228,966**	**432,279**	**+52%**	**+89%**

However, while the new system does appear to be, as planned, facilitating skilled and student migration, it is also – as many had forecast – resulting in labour and skill shortages in sectors and occupations. This has led to some modifications of the policy, with special visa routes for HGV drivers and poultry workers, and most importantly the extension of the Health and Care Worker visa to care workers, including those on relatively low pay, for whom the salary threshold is now £10.10/hour (only about 6% more than the minimum wage).

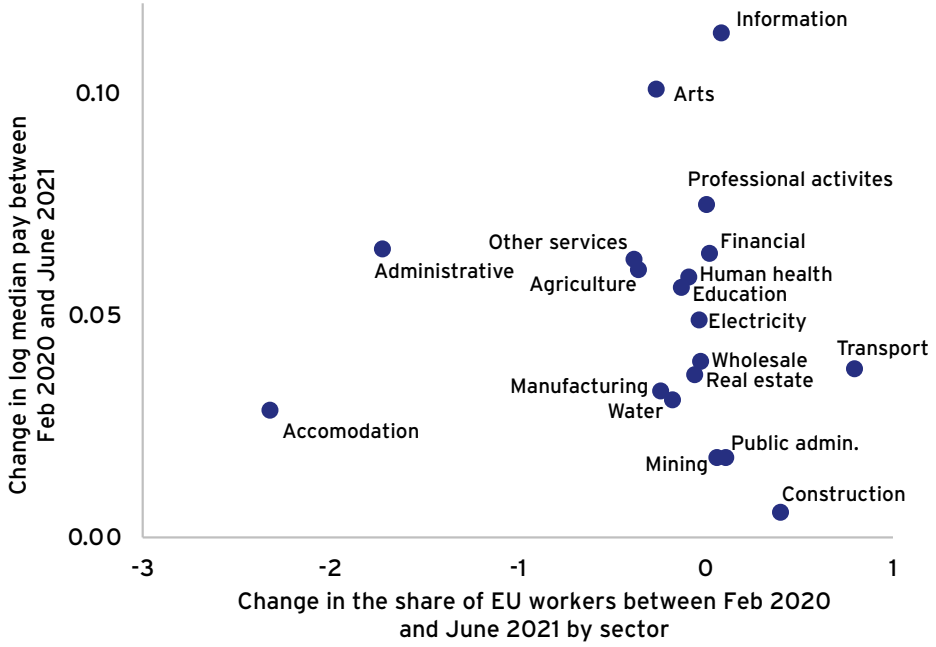
Portes (2022) discusses the potential economic impacts. Earlier views on the potential impacts on the UK economy of the end of free movement and the transition to the new system may have been too pessimistic, based as they were on the assumption the new system would be more restrictive. For example, Forte and Portes (2019) estimated that the new system would result in a reduction in UK GDP of up to 2% over ten years. However, updating their estimates to reflect the new system results in a much smaller fall in GDP, and indeed a small rise in GDP per capita.

More immediately, there have been numerous anecdotal reports of wage rises in sectors and occupations experiencing skill and labour shortages, in particular some transport and logistics roles and the hospitality sector. The new immigration system is unlikely to

be the main driver of UK wage growth, either overall or for these specific sectors – the disruption resulting from the pandemic and subsequent reopening, and the sharp rise in inflation, are likely to be far more important (e.g. Duval et al. 2022). However, raising relative wages among low-skilled and low-paid workers most exposed to competition from 'cheap' immigrant workers was a key objective – economic and political – of the new system, so it is clearly of interest to examine whether this is in fact the result.

So far – despite the anecdotes – there is little quantitative evidence to suggest that the new system has in fact boosted wages for such workers. In particular, wages in the hospitality sector ("accommodation and food services"), while they have grown strongly over the last year, remain lower relative to median wages than before the pandemic, despite the large shock to migrant labour supply. Meanwhile, the overall wage distribution has returned to almost exactly what it was before the pandemic (in contrast to the US, where low wage workers have made significant relative gains).

FIGURE 4 WAGE GROWTH AND CHANGE IN EU ORIGIN WORKERS DURING THE PANDEMIC



Source: Author's calculations from HMRC data.

So, the current picture appears to be one of a UK immigration system rapidly (re)-orientating from Europe to the rest of the world, especially South and Southeast Asia, and an attendant reorientation between sectors away from hospitality and some agriculture and manufacturing sectors towards health, care, and ICT. While this will alleviate, if not solve, some of the extreme pressures on staffing in the health and social care system, it is as yet far from clear that it will have much impact on wage growth in other sectors.

Considerable uncertainty remains, with an additional dimension resulting from the government's decision to offer entry visas to the almost three million British National (Overseas) passport holders from Hong Kong and their dependents (Home Office 2020). Nevertheless, while the overwhelming consensus amongst economists that Brexit – and in particular, the 'hard Brexit' pursued by the UK government – will have significant negative impacts on trade and investment, and hence on the broader UK economy, there is much more cause for optimism about the impacts of the new post-Brexit UK immigration system.

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CHAPTER 9

How is the end of free movement affecting the low-wage labour force in the UK?

Madeleine Sumption[1]
Migration Observatory at the University of Oxford

The post-Brexit immigration system was simultaneously liberal and restrictive. It liberalised access to the UK labour market for non-EU citizens, lowering salary thresholds and skills requirements for work visas. But it was much more restrictive that the previous status quo for EU citizens, who had enjoyed full access to the UK labour market before the end of the post-Brexit transition period in December 2020.

Since free movement ended at the end of December 2020, many employers in industries that previously had relied heavily on EU citizens can no longer recruit newly arriving EU citizens because the jobs are not eligible for work visas. Analysis conducted over the past six years repeatedly showed that some industries would be particularly affected by the introduction of a 'skill-selective' work visa system (Vargas Silva 2016, MAC 2018, Morris 2020) – including, for example, hospitality and retail, where employers relied heavily on EU citizens and also offered relatively few jobs that met the skill and salary criteria for work visas.

Over the course of 2021, headlines were filled with stories of labour shortages, including HGV drivers driving fuel tankers and stocking up retail stores; pig farmers claiming that they must slaughter thousands of animals because of a lack of abattoir workers and skilled butchers; and demands from numerous other industries – from hospitality to the care sector – for greater access to visas to supply their labour. So, what do we know so far about the impacts of ending free movement on industries such as these? This chapter examines the evidence from the first year of the post-Brexit immigration system.

1 Thanks to Zach Strain for Research Assistance. Research for this project was produced with the support of Trust for London and Research England's PSF allocation to the University of Oxford.

HOW HAS THE EU MIGRANT WORKFORCE CHANGED SINCE BREXIT AND THE PANDEMIC?

Brexit and the pandemic have together had a significant impact on the shape of the migrant workforce in the UK. First, the pandemic led to substantial job losses, pushing many EU citizens to leave the country (ONS 2021). Second, as the economy and labour market started to recover, the new immigration system changed the way immigration could respond. Whereas under free movement, we might have expected EU migration to bounce back during the economic recovery, the new immigration system provides few options for migration to take up low-wage work – as Jonathan Portes explains in his contribution to this eBook.

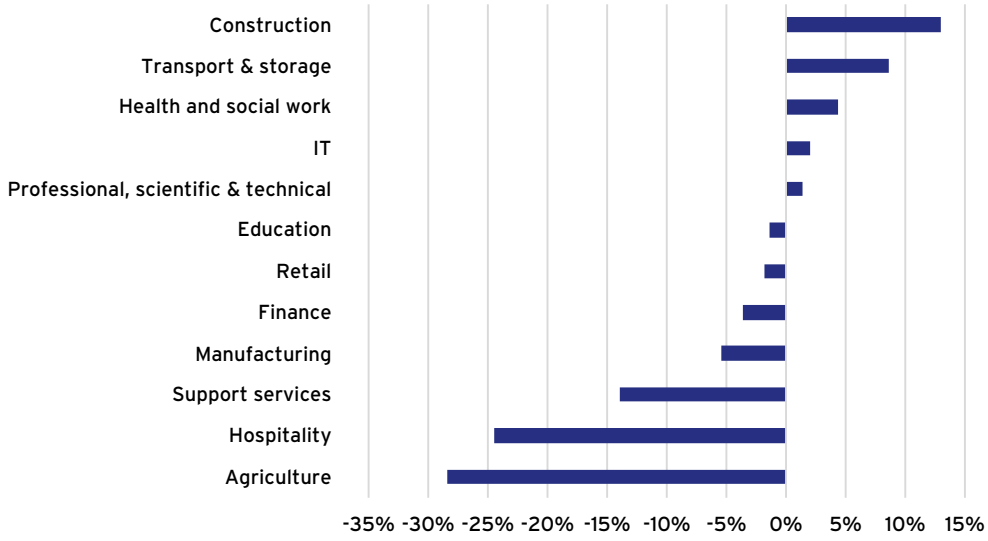
So, how has the end of the free movement combined with the pandemic affected the migrant workforce? The best data to answer this question come from tax records and are published by HMRC and the Office for National Statistics (ONS), and show the number of jobs held by people of different nationalities (if the same person has two different jobs, they are counted twice). At the time of writing, they cover the period up to June 2021, i.e. the first six months of the new immigration system. These data show that, overall, the EU citizen workforce had not returned to its pre-pandemic size by mid-2021. In June 2021, it remained 6% smaller than two years previously. By contrast, the number of jobs held by UK workers had almost returned to pre-pandemic levels (99%), and among non-EU citizens the figure was 9% higher.

However, the picture varies a lot by industry. In fact, the overall decline in the employment of EU workers was primarily driven by two industries: hospitality, which saw a net decline of just over 98,000 EU citizen jobs in the two years to June 2021; and administrative and support services (a category that includes a range of mostly low-wage service positions such as building cleaning and maintenance, as well as some agency work), where the same figure fell by just under 64,000.

Some industries have therefore seen a much sharper-than-average decline in the EU migrant workforce, while in others the number of jobs held by EU migrants increased despite the pandemic and post-Brexit immigration system (Figure 1).

These patterns are partly driven by the fact that some industries expanded while others contracted during this two-year period during the pandemic, but that is not the whole story. Different industries' relative reliance on EU migrant workers also shifted. In hospitality, for example, the EU workforce recovered much slower than the UK or non-EU workforce, as a result of which the EU share of jobs held decreased by four percentage points. By contrast, jobs held by EU migrants increased faster than for other groups of workers in construction and in transport and storage, despite Brexit and the pandemic (Figure 2).

FIGURE 1 CHANGE IN EU EMPLOYEE JOBS, JUNE 2019 TO JUNE 2021



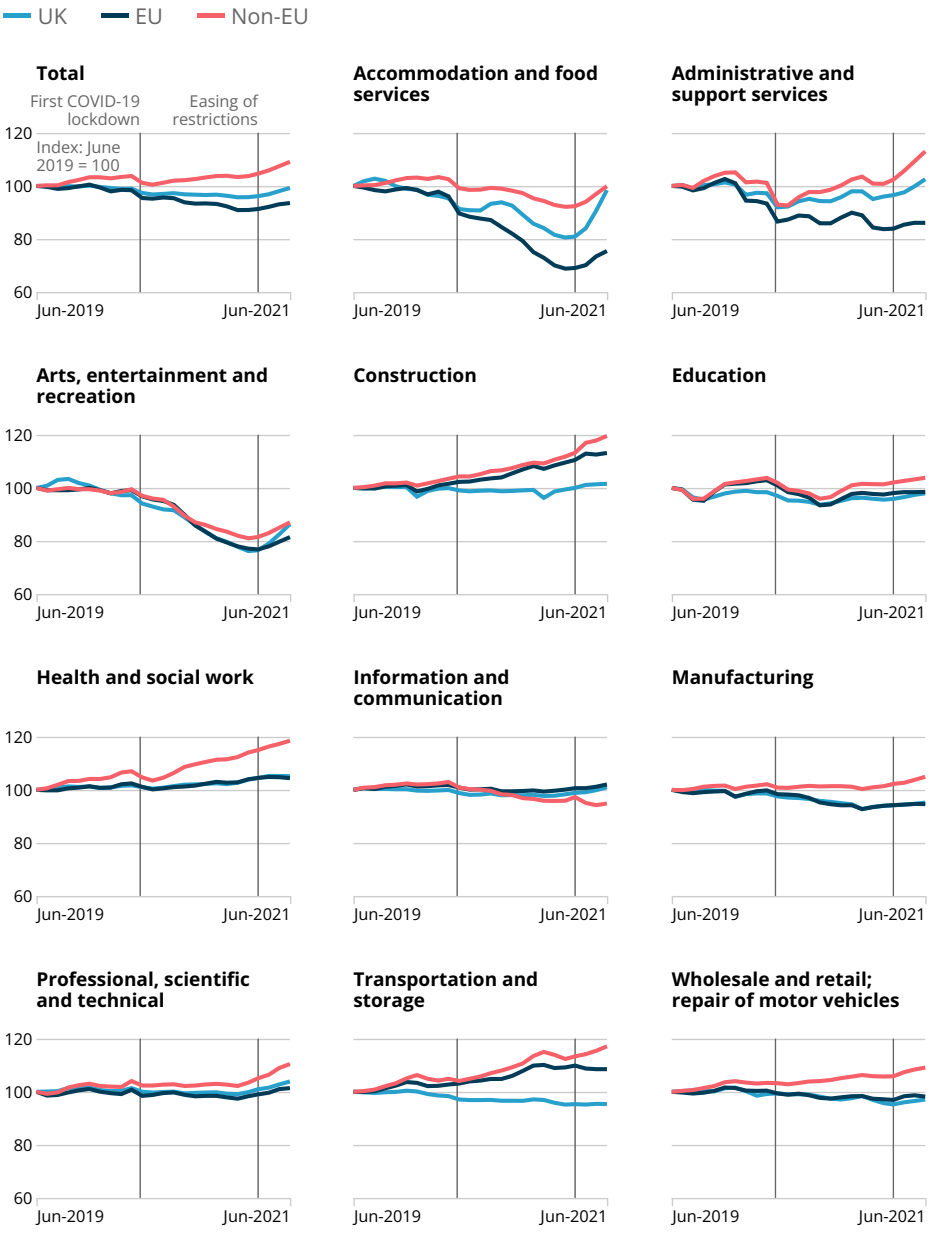
Source: ONS (2022e).

The data do not distinguish between people who have recently arrived in the UK versus those who have lived in the country for some time. The variable picture by industry is consistent with the expectation that some industries, such as hospitality, have traditionally relied more heavily on newly arriving migrants, while others recruit in larger numbers from the existing workforce. In 2019, for example, hospitality was the industry whose EU workforce was most likely to comprise recent arrivals. An estimated 35% of EU-born workers in hospitality had arrived in the previous five years, well above the average across all industries of 22% or the 18% share in the construction industry (author's calculations from the Annual Population Survey). This would imply that the impact of Brexit and the pandemic on industries like construction may simply take longer to emerge.

ARE EMPLOYERS EXPERIENCING SHORTAGES?

There are certainly signs that the labour market in early 2022 is tight, i.e. that it is more challenging than usual for employers to find candidates. Vacancy rates have risen sharply in the UK, particularly in hospitality and health (ONS 2022a), and one third of businesses with at least ten employees said that they were facing staff shortages in early April 2022 (ONS 2022b). The number of people quitting their jobs and moving to another one reached a record of more than one million in the fourth quarter of 2021, with 41% moving between industries (ONS 2022b); voluntary job moves are an indicator of a tight labour market (Cominetti 2022). And unemployment in the three months to February 2022 was only 3.8%, close to the record lows seen in 2019 (ONS 2022c).

FIGURE 2 CHANGE IN PAYROLLED EMPLOYMENTS INDEXED TO JUNE 2019 BY INDUSTRY AND NATIONALITY, UK, JUNE 2019 TO JUNE 2021



The rise in vacancies has been highest in jobs that relied most heavily on EU workers pre-pandemic (Joyce et al. 2022). However, high vacancy rates are not unique to the UK and there are other competing explanations, such as high job turnover following the pandemic recession and larger numbers of people becoming economically inactive (for example, retiring early) (IES 2022). Many high-income economies are currently experiencing high vacancy rates during the recovery from the pandemic, which suggests that the end of free movement is by no means the only cause (Duval et al. 2022).

Disentangling the impacts of the end of free movement from other quirks of the post-pandemic labour market is difficult. Indeed, where employers face difficulties recruiting sufficient staff, often it is because multiple factors come together. For example, the Migration Advisory Committee's review of the social care workforce (MAC 2022) found that the industry was facing serious staff shortages that were having a significant impact on the quality and availability of adult social care, and that these shortages had been exacerbated by the end of free movement but was fundamentally driven by other factors – most notably, years of insufficient funding. Similarly, a high-profile shortage of HGV drivers in the second half of 2021 had multiple potential causes; these included a decline in EU driver numbers, but also declines in the attractiveness of the industry to UK workers over the years, and a sharp decline in driving tests due to Covid-19 related restrictions.

HOW ARE EMPLOYERS RESPONDING TO THE END OF FREE MOVEMENT?

In principle, there are various different ways employers could respond to the end of free movement:

- attracting more workers from the UK workforce (whether UK-born or migrants who already live in the UK), for example by raising wages, improving working conditions or being more flexible on hours and contracts;
- recruiting workers from abroad, usually by sponsoring them on a work visa;
- reducing the need for workers, for example through automation, switching to less labour-intensive goods and services, or cutting back production in the UK.

Wages

Policy debates about migration often focus on the first of the adjustments outlined above – attracting more UK workers – and ignore the fact that other responses also exist. In theory, we should not expect employers' *primary* response to be to raise wages and attract more UK workers, since past research has generally found that immigration has limited impacts on wages (e.g. Vargas-Silva 2020). Where there are impacts on wages, they are expected to be relatively short lived and disappear within a few years as the economy adjusts to accommodate newly arrived workers (Peri 2010).

In general, tighter labour markets – with high vacancy rates and low unemployment – are expected to cause higher wage growth at least in the short term, as employers seek to attract or retain staff (Cominetti et al. 2022, Duval et al. 2022). However, during the pandemic period and the first months of the post-Brexit immigration system in the UK, analysis from the Institute for Fiscal Studies (Joyce et al. 2022) suggests that there has been no correlation between rising vacancies (which have been higher in jobs previously reliant on EU workers) and wage growth. It concludes that vacancies did not push up wages from 2019 to 2022. In fact, the hospitality industry, which saw one of the largest percentage declines in EU citizen employment from June 2019 to June 2021 (see Figure 1), was one of the industries with the lowest wage growth during that period (ONS 2022d).

In other words, the early figures have not shown any evidence that tight labour markets – whether due to lower EU migration or other factors – have increased wage growth in low-wage jobs. Also unclear is how long any wage effects of immigration would last even if they do start to emerge. In theory, increased wages are expected to encourage employers to reduce the number of people they employ, either by turning to alternatives (such as automation) or by passing on costs to consumers via higher prices, thus experiencing lower demand for their goods or services. As more data on wages become available in the coming months, the short-term effects of lower immigration on wages may start to become clearer, although it could be some years before it would be possible to confirm the expectation that ending free movement has not had a large impact on wages.

Recruiting migrants from overseas

Can employers who might previously have hired EU workers under free movement rules recruit under the new immigration system instead, for example by sponsoring EU and non-EU workers? For the most part, the immigration system is only designed to permit this in skilled jobs – i.e. those that meet skill requirements and salary requirements of at least £25,600 (with some exceptions, such as rates starting from £20,480 in shortage occupations). Most low-wage jobs are not eligible, although there is a work visa route for agriculture, and care workers can qualify for skilled worker visas if they earn at least £10.10 per hour, which is £0.60 above the minimum wage.

Most of the industries that had above-average shares of EU migrants before the pandemic – such as hospitality, transportation and storage, manufacturing, construction, and admin and support services – were low users of Skilled Worker Route visas in 2021 (Figure 3a). Looking at the results by occupation (Figure 3b), it is clear that many occupation groups that have previously relied heavily on EU migrants sponsored no migrants on skilled work visas at all, because they were ineligible. However, even where jobs are eligible and occupations have in the past relied significantly on EU workers, there are often very low rates of sponsorship. For example, just under 8% of workers in the skilled construction and building trades were EU born in 2018-2020 (82,000 EU migrants), but employers sponsored only 123 people in this occupation group in 2021.

FIGURE 3A SKILLED SPONSORED WORKS (EU AND NON-EU) IN 2021

% of total employment in the industry (Jan 2021)

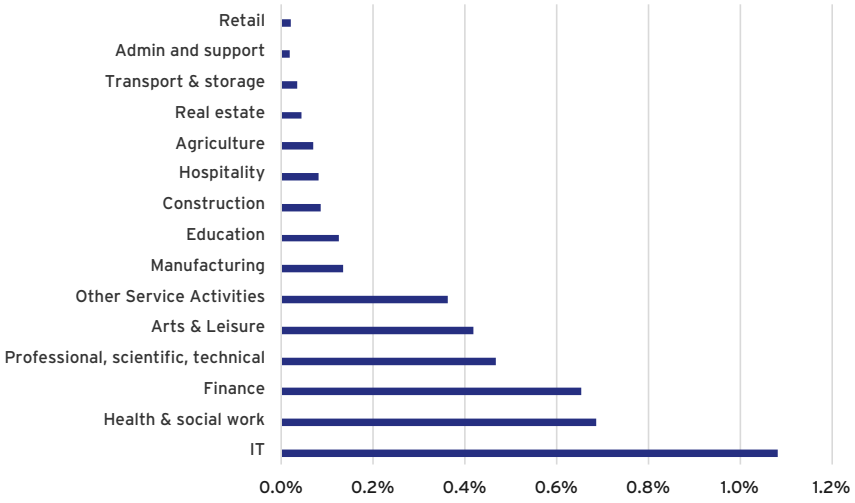
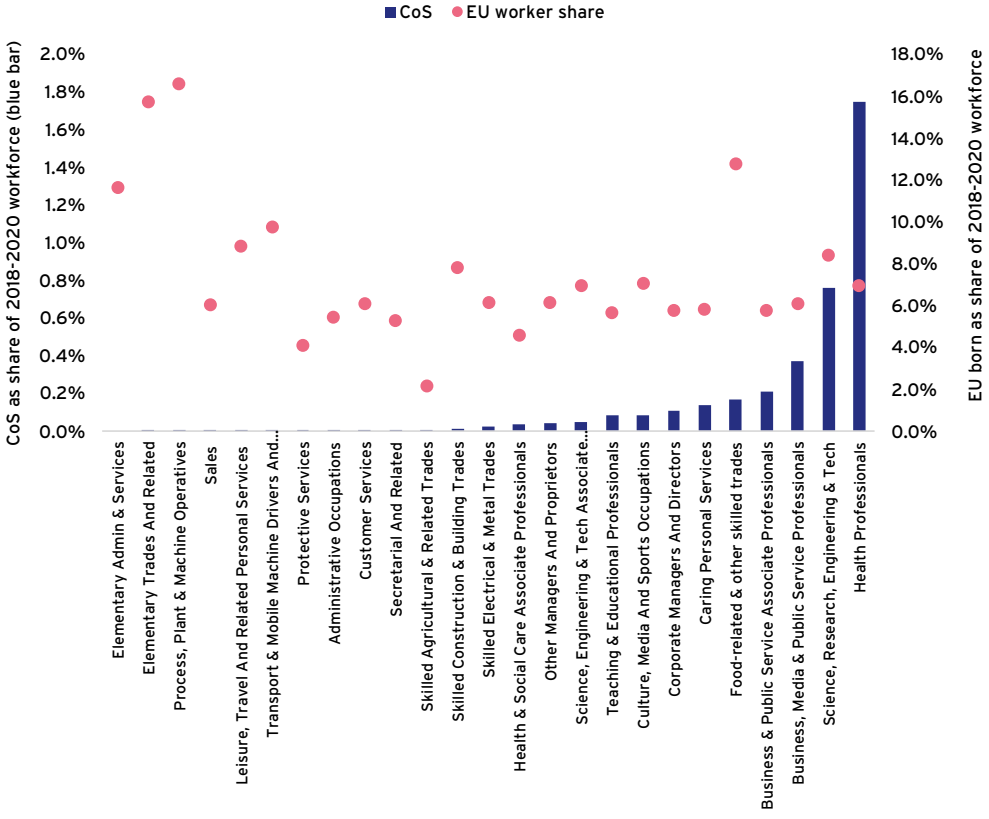


FIGURE 3B SKILLED SPONSORED WORKERS IN 2021

Share of the 2018-2020 workforce



Source: HMRC payroll data; FOI data from Home Office.

Notes: Data show Certificates of Sponsorship for out of country visas.

Low sponsorship rates in most middle-skilled jobs that previously relied on EU citizens is likely to result from the costs and bureaucracy associated with the using the immigration system. Some smaller employers also perceive sponsoring migrants on work visas as risky – concerned, for example, that inadvertent non-compliance with rules on monitoring employees could mean they lose their license (MAC 2022).

Because there are start-up costs involved in becoming a sponsor and learning how to sponsor workers, it is possible that larger numbers of employers will turn to the work visa system over time.

From 2019 to 2021, the EU migrant workforce fell at the same time as the number of non-EU workers increased (ONS 2022e), raising the question whether employers have substituted from EU to non-EU workers. For the most part, however, the industries that have driven the increase in non-EU citizen employment are not the same ones that drove the decrease in EU citizen employment. In particular, the biggest decline in EU employment was in hospitality, where very few jobs are eligible for work visas, while the increase in non-EU workers, by contrast, was driven by the health sector (ONS 2022e).

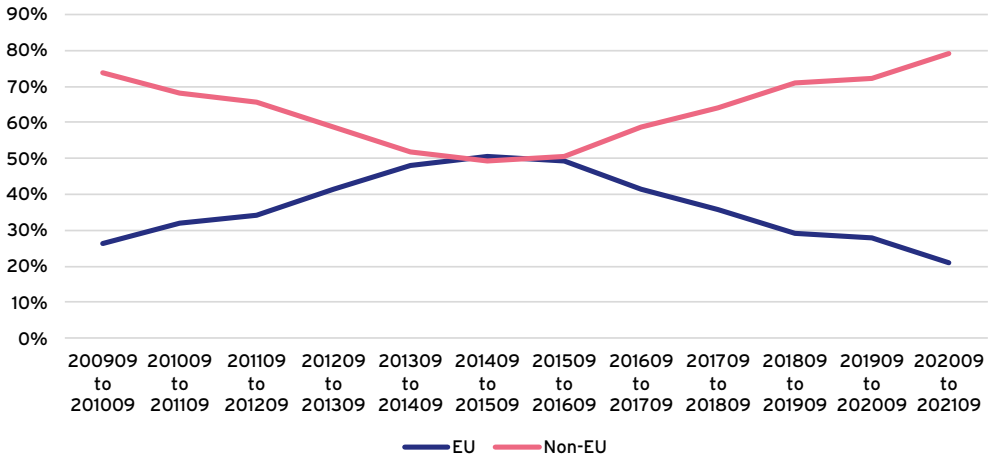
One notable exception is the agricultural industry, where employers have been able to recruit non-EU citizens using the Seasonal Workers visa. In June 2021, the number of EU citizen-held jobs in agriculture was 13,000 (28%) lower than it had been in the same month two years earlier (Figure 1). At the same time, agricultural employers turned in large numbers to the Seasonal Workers visa, which expanded in 2021 to 30,000 places (with 29,600 visas granted).

Another industry where there is some evidence of substitution from EU to non-EU workers is health, although this trend predates the post-Brexit immigration system and instead started at around the time of the EU referendum. Before the referendum, new staff joining the NHS had increasingly come from EU countries and by 2016 roughly half of new joiners from outside the UK were EU nationals (excluding those whose nationality is not known) (Figure 4). This trend reversed from late 2016 onwards, and by the year ending September 2021 only 21% of non-UK new joiners were from EU countries.

In other words, there have been some cases where there is clear evidence that employers have been able to respond to lower EU migration by recruiting staff on work visas. In most of the jobs that were previously particularly reliant on EU workers, however, employers have not turned to the work system in large numbers, whether because they are not eligible or because of the costs and perceived risks of doing so.

FIGURE 4 EU AND NON-EU STAFF JOINING THE NHS, AS SHARE OF NON-UK JOINERS

FTE, excluding those of unknown nationality



Source: NHS Digital.

Note: figures are presented as a percentage of EU or non-EU new joiners. This is because from 2019 to 2021 the share of workers with 'unknown' nationality substantially decreased due to improvements in data collection; therefore presenting the figures as absolute numbers can distort the overall picture.

Reducing demand for workers

In the medium to long run, one of the main impacts of the changing shape of the workforce under the new immigration system should be that industries that were most reliant on EU workers grow less quickly than they would have done if free movement had continued (MAC 2018). There is some early qualitative evidence of this in practice since the end of free movement. For example, research in the horticultural sector found that UK growers facing staff shortages had in some cases moved production overseas or invested in automation in pack houses to reduce their demand for workers (Barbulescu et al. 2021). The Migration Advisory Committee's (2022) report on social care found evidence that worker shortages (not primarily resulting from the end of free movement but exacerbated by it) had meant that less care could be provided, with some care providers handing back contracts that they could not fulfil. In February/March 2022, among employers who said they were facing worker shortages in the ONS Business Insights survey in February/March 2021, around half said that they were "unable to meet demands" as a result, suggesting that business growth was constrained (ONS 2022b).

CONCLUSION

It is still early to assess the full impacts of the end of free movement and the introduction of the new immigration system. The data available at the time of writing in May 2021 suggest that many employers in industries that previously relied heavily on EU migration are finding it difficult to recruit, but that this has not necessarily translated into high wage

growth for low-wage workers. The end of free movement is likely to have played some role in the tight labour market, but is not the only factor and broadly similar patterns have played out in other high-income countries.

While some employers have turned to overseas recruiting under the new immigration system, this has not been the norm in lower-wage industries, likely as a result of the new system's eligibility criteria and costs. The consequences of employers' greater difficulty recruiting are still playing out. In theory, shortages are expected to be short term and to translate into slower employment growth in lower-wage jobs or a reduction in demand for these goods and services as any wage increases that do take place translate into higher prices. There is some emerging, but still limited, evidence that these adjustments are taking place, with some employers exploring automation or reducing the amount of activity in response to staff shortages.

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CEPR PRESS

On 1 January 2021, the UK implemented the biggest changes to its trade policy in 40 years, as well as introducing an entirely new immigration system; all in the middle of a global pandemic. Eighteen months on, what have we learned about the impacts of Brexit on the UK economy?

This eBook, produced by VoxEU/CEPR and UK in a Changing Europe, brings together leading academic researchers on trade, immigration and the political economy of Brexit to present new research and evidence on different aspects of this question. It shows that Brexit has already had measurable and meaningful impacts on the structure and volume of UK trade and migration. While some of these impacts are consistent with economists' predictions, others are surprising and unexpected.

As well as explaining what has happened so far, contributors also suggest how the UK can adapt to the implications of new trading arrangements. Brexit will reshape the UK's place in the global economy. This book both analyses how those changes are playing out and helps to point the way forward.

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