

Deglobalisation in Disguise? Brexit Barriers and Trade in Services

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Abstract

Deglobalisation policies promote the vision that pulling back from economic integration can help correct international imbalances and reposition national economies for renewed prosperity. A core vision of Brexit was to transform the UK to a new Global Britain—a sovereign trading nation free from EU constraints, and capable of reinvigourating its historical comparative advantage in the world economy. Central to this was the idea of “taking back control” of regulations, particularly in high-value-added services where EU rules were seen as limiting the UK’s long-standing global competitiveness. We develop granular and comprehensive measures of UK’s departure from regulatory alignment with the EU, and find that they have introduced significant new bilateral trading frictions that have not been offset by increased competitiveness in markets beyond the EU. UK exports to the EU in services that have got these new Brexit barriers have declined by 16 percent relative to other bilateral trade flows. Overall, UK services exports are estimated to be 4 to 5 percent lower, indicating that five years on, Brexit has fallen short of delivering its vision of Global Britain.

JEL: F13, F14, F53.

Keywords: deglobalisation, services, non-tariff barriers, Brexit.

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1 Introduction

The global economy has entered a new phase marked by a deceleration—or in some instances, reversal—of cross-border integration, often referred to as “deglobalisation”. The initial decades of the 21st century were characterised by growing interconnectedness, with China and many emerging markets integrating with the world economy through global value chains and the world’s largest trading bloc - the European Union - deepening and expanding the Single Market. Recent years have witnessed growing economic nationalism, protectionist policy discourse and declining trust in multilateral institutions that are reshaping international policy in advanced democracies.¹ The backlash against globalisation reflects both genuine economic disruptions and perceived injustices (Colantone et al. (2022)). In response, political rhetoric has promoted a vision in which retreating from regionalism and multilateralism will address international imbalances and reposition national economies for greater prosperity. This shift has been interpreted as international integration coming increasingly in conflict with national sovereignty and democratic responsiveness, the erosion of the liberal international order and the strategic weaponization of economic interdependence.² Two defining episodes of this transition—Brexit and the Trump administration’s trade war—highlight how states attempt to reassert economic sovereignty.

The Brexit campaign was driven by a sovereignist narrative centred on the slogan of “take back control” from EU institutions (Hobolt (2016), de Vries (2018)). At its core was the promise that Brexit would “free” Britain to pursue its full global potential—unencumbered by the perceived burdens of EU rules, red tape, and regulatory constraints. Freed from Brussels, Britain would forge new trade deals, reconnect with fast-growing markets beyond Europe, and reinvigorate its historical comparative advantage in sectors such as finance, law, life sciences, and education—the backbone of its modern, services-driven economy. This ambition resonated with a wider policy discourse advocating for a “Singapore-on-Thames” model, which emphasised regulatory autonomy, deregulatory flexibility, and a more globally oriented economic strategy (Johnson (2019), House of Lords Financial Regulation Committee (2025)). Regulatory sovereignty was positioned as the key to unlocking innovation and international competitiveness, particularly in high-value-added services, where the UK has traditionally excelled. As much of the growth in these sectors was increasingly driven by demand outside the EU, disentangling Britain from the bloc’s regulatory and trade frameworks was seen as a path to a more agile and globally responsive economy. Some also envisioned that the fiscal dividends from

¹See for example, Antras (2020), Baldwin (2022), Goldberg & Reed (2023), O’Rourke (2019).

²See for example, Rodrik (2000), Helleiner & Kranke (2018), Mearsheimer (2019), Farrell & Newman (2019), Witt (2019).

this could be channelled into renewal of domestic manufacturing, reversing decades of deindustrialisation that had set in as far back as the 1970s. In short, Brexit was framed as a route to restore regulatory sovereignty to create a new “Global Britain”: a nimble, independent trading nation, no longer constrained by EU bureaucracy.

Five years after the UK’s formal departure from the EU, it is now possible to assess the extent to which this vision has been realised. The post-Brexit Trade and Cooperation Agreement (TCA) maintained tariff- and quota-free trade in goods, cushioning some of the potential disruption. However, the UK’s departure from the EU single market introduced new regulatory frictions and bilateral rules governing trade and investment. Participation in the EU’s single market — the deepest international integration agreement in the world — had previously simplified cross-border trade, investment, and labour mobility by removing regulatory inconsistencies. However, participation required accepting shared rules and, in many cases, regulatory harmonisation—an arrangement that was increasingly seen as reducing UK competitiveness and limiting its ability to tailor its trade and regulatory frameworks to global markets beyond Europe.

For a country like the UK — the world’s second-largest exporter of services after the United States — Brexit was expected to unlock greater flexibility in navigating global markets. Evidence suggests these expectations have not been met. Since Brexit, UK services exports have grown more slowly than both global services exports and those of comparable economies. To determine the role of Brexit in these differential trends, we develop granular and comprehensive measures of Brexit-induced barriers to trade and investment. Combining the measures with bilateral trade data, we find that UK exports to the EU in Brexit-affected services have declined by 15.8 percent relative to other bilateral trade flows. Crucially, this loss in EU market share has not been replaced by increased share in markets outside the EU. Despite the UK’s efforts to pursue deep trade agreements with faster-growing economies, the practical barriers of deep market access, regulatory equivalence, and geopolitical complexity have complicated the realisation of a Global Britain agenda. The practical constraints of market access, regulatory equivalence, and geopolitical realities have complicated the realisation of this agenda, raising broader questions about the viability of economic nationalism in an interdependent global economy.³ These findings underscore that the gap between Brexit’s promises and its economic outcomes was not merely a matter of implementation problems. Rather, it reflected a broader underestimation of the structural complexity of disentangling from deep economic integration, and an overestimation of the UK’s capacity to unilaterally reconfigure its global trade position, that has often been called “magical thinking” in the academic

³See also [Staiger & Mattoo \(2019\)](#), [Newman & Farrell \(2020\)](#).

and policy literature.⁴

Contributions and Related Literature

This paper contributes to the growing literature on deglobalisation and its economic consequences by providing new evidence on the trade effects of barriers introduced by Brexit. Specifically, we study how regulatory sovereignty from Brexit has fallen short of repositioning the UK economy internationally.

New theoretical work on deglobalisation shows that the welfare effects of trade policy shocks can get amplified when they disrupt established sourcing relationships and trade patterns (Ornelas et al. (2021), Grossman et al. (2024)). Early empirical evaluations from Brexit and the first Trump tariff war suggest that deglobalisation policies had several short-run economic costs (Fajgelbaum & Khandelwal (2022), Dhingra & Sampson (2022)). While the structural effects of the Trump administration’s America First agenda are still unfolding, studies on the first set of US-China tariffs suggest that although there was a reallocation away from direct Chinese imports, overall US goods imports remained resilient and rebounded post-pandemic to record highs in 2022 (Fajgelbaum et al. (2024), Alfaro & Chor (2023)). In the UK context, early analyses of Brexit focused largely on projected impacts following the referendum (Van Reenen (2016), Sampson (2017)). More recent empirical work has examined realised changes in goods trade flows between the UK, the EU, and non-EU partners (Freeman et al. (2024) and Ayele et al. (2021)). In contrast, our paper is, to the best of our knowledge, the first to focus on services trade and to estimate the trade impacts of Brexit-induced non-tariff barriers in a granular, sector-specific way.

The key variable of interest in our study, Brexit barriers, can be defined at the level of the source-destination-service. This is an important aspect of the specification because it makes for a sharp research design, that to the best of our knowledge has not been exploited in studies of services trade, deep international integration or Brexit. The usual approach is to specify trade barriers at the source-destination level because variation in trade barriers is difficult to measure. For example, post-Brexit tariffs are uniformly zero across goods and EU destinations and non-tariff barriers arising from the TCA, such as customs checks, are hard to determine at the destination-product level. Consequently, studies have typically needed to rely on overall source-destination trade effects to identify the impacts of trade barriers. In keeping with a key insight of the gravity literature, we identify the trade effects from bilateral trade barriers, controlling for country and product trends that account for other effects that may not be directly related to the trade

⁴See Grey (2021) and Hawkins & Holden (2023); Rankin (2017) for EU news reporting.

barriers and account for multilateral resistance (arising from spillovers of trade barriers to non-imposing countries).

Our focus on the new barriers contributes to the literature on deep international integration and on globalisation in services. Unlike goods, trade in services is not typically subject to tariffs. Instead, regulatory divergence—such as domestic licensing requirements, residency conditions, and restrictions on cross-border provision—acts as a major barrier to international trade in services. These frictions fragment global services markets and often reflect domestic policy objectives, including cultural preservation, consumer protection, financial stability, and environmental standards.

Efforts to liberalise services trade have increased markedly in recent decades. Over 60 percent of preferential trade agreements (PTAs) now contain provisions on services, compared to just 10 percent prior to 2000 (Gootiiz et al. (2020)). However, regulatory differences remain a significant obstacle to market access. Recent theoretical models formalise trade-offs between national priorities and cross-border competition and efficiency (Staiger & Sykes (2021) and Grossman et al. (2021), see also Lamy (2015, 2016) and Sykes (1999a,b, 2000), Grossman et al. (2021)). Complementing these advances, empirical studies have begun to show that regulatory barriers are key determinants of bilateral services trade flows, although the elasticity of services trade to NTBs remains difficult to estimate due to data limitations and institutional complexity (Gootiiz et al. (2020), Mattoo et al. (2022)).

By contrast, the literature on goods trade has made significant progress in estimating trade elasticities, aided recently by policy-induced tariff variation and detailed tariff schedules (see Head & Mayer (2014); e.g. Caliendo & Parro (2015), Fajgelbaum et al. (2024)). These elasticities are central to answering questions that are fundamental to international economics - how do trade costs determine trade patterns, how is economic welfare affected by trade and international integration, and what is the optimal trade policy unilaterally and internationally. Yet, despite the rising importance of services and deep integration in global trade, many quantitative analyses still rely on goods-based tariff elasticities for quantitative evaluations of the welfare gains from openness and international integration.

Our paper offers a novel empirical approach to measuring the effects of barriers in services trade, using Brexit as a unique natural experiment. The UK's withdrawal from the EU represents one of the most significant deglobalisation episodes involving a deep trade agreement. We codify the legal provisions introduced in the UK-EU Trade and Cooperation Agreement (TCA), using expert legal analysis to identify treaty-induced policy barriers at a granular, service-specific level. This enables a sharp assessment of the new barriers arising from the agreement, which resemble those found in other deep trade agreements, such as the United States-Mexico-Canada Agreement (USMCA).

Unlike existing databases—such as the World Bank’s Deep Trade Agreements (DTA) database—that broadly classify whether an agreement covers specific services sectors, our approach disaggregates provisions by individual service type within the TCA. This enables us to study the actual economic effects of legally binding provisions that are often shared across modern deep agreements. A number of trade agreements impose barriers on specific services, such as finance and telecommunications (e.g. the World Bank Deep Trade Agreement database), but existing measures do not provide a granular service-specific codification of non-tariff barriers. Our work contributes to related literature on measuring the "depth" of trade agreements. For instance, [Mulabdic et al. \(2017\)](#) construct depth measures based on the number of policy areas covered by PTAs; [Brienlich et al. \(2021\)](#) apply machine learning to identify key provisions; and [Mattoo et al. \(2022\)](#) emphasise legal enforceability as a critical dimension of depth. In methodology closest to ours, [Gootiiz et al. \(2020\)](#) examine whether a preferential trade agreement contains service-specific measures or not. We go further by mapping the legal language in the TCA to specific services sectors and linking this to trade outcomes.

The rest of the paper is organised as follows: Section 2 provides the contextual background and describes the non-tariff barriers in the TCA and their measurement. Section 3 explains the empirical strategy and presents the main estimation results. Section 4 considers robustness of the main findings and discusses them in light of the trade literature. We conclude in Section 5.

2 Brexit and UK-EU trade relations

This section starts with a broad outline of deep integration between the UK and the EU and its disintegration through Brexit. Then we discuss UK’s comparative advantage in services and its recent under-performance in exports. Connecting the two sub-sections, we then define the new bilateral trading rules arising from Brexit, explain their measurement and provide key descriptive statistics.

2.1 UK-EU Deep Integration

The EU has been the UK’s largest trading partner for decades and reductions in trade barriers through EU membership contributed to increased trade between them. Prior to the UK joining the European Economic Community (EEC) in 1973, around one third of UK trade was with the EEC. In 2014, the 27 other EU members accounted for 45 percent of the UK’s exports and 53 percent of imports, and exports to the EU made up 13 percent of UK’s national income ([ONS \(2015\)](#), [Dhingra et al. \(2017\)](#)).

Membership of the EU reduces trade costs between member countries. There is a customs union between EU members, which means intra-EU trade in goods is tariff-free. Importantly, membership of the EU reduces non-tariff barriers through the EU’s continuing efforts to create a ‘single market’ within Europe by harmonizing rules, regulations, and standards across member states ([EC \(2025\)](#)). Common regulatory standards in many products and services eliminate the need for firms to adapt their products to different national regulations. Even when rules are not fully harmonized, EU countries often accept each other’s regulations under the principle of mutual recognition. Professions such as law, medicine, and engineering are covered under EU directives that streamline recognition of qualifications across member states. Businesses can set up branches or offer services across the EU with minimal administrative friction. EU institutions, such as the European Court of Justice, ensure that countries apply the rules uniformly and resolve disputes that might otherwise act as non-tariff barriers. In effect, the Single Market strives to make cross-border trade and investment within the EU nearly as frictionless as within a single large country.

The single market makes it easier for businesses to trade and operate across borders, but participation requires agreeing to common rules and, in many cases, harmonising regulations—an arrangement that was increasingly seen as compromising UK sovereignty, reducing its competitiveness and limiting its ability to tailor trade policy and regulation for global markets outside the EU. In the UK, some political groups campaigned against EU membership on this basis of taking back control of regulations from EU institutions. The calls for national sovereignty had been heavily stepped up by 2015, culminating in the EU Referendum Bill in the Queen’s speech of 27 May 2015 ([Costa et al. \(2024\)](#)). The referendum to stay in the EU or Leave took place on 23rd June 2016. The UK unexpectedly voted to leave the EU and the Leave vote provided a popular mandate for Brexit. The terms of the new economic relationship that would replace EU membership dominated UK politics and economic policy for the next four years ([Dhingra & Sampson \(2022\)](#)). Brexit finally took place on 31st January 2020 and the new economic relationship specified in the TCA came into force in 2021. The TCA provides for tariff-free and quota-free trade in goods between the UK and the EU. But the UK is no longer a member of the EU’s single market and has departed from regulatory alignment with the EU.

2.2 UK Services

Services contribute to about 80 percent of gross value added in the UK and have been the main driver of economic growth, with services making up half of UK exports ([Brien \(2023\)](#), [ONS \(2016\)](#)). The UK is the second largest exporter of services in the world, with services exports valued at over £500bn in 2024. The share of services in exports is

far larger for the UK than any other country of comparable size specialising in services (De Lyon et al. (2022)). At about half of total exports, the UK's services share is roughly twice that of the OECD average. This is larger than advanced economies, such as the US, France, and Spain, that also specialise in services but much less so, with roughly a third of their exports being services. And it is also larger than some other advanced economies, such as Japan, Germany, and Korea, that specialise more in goods, with services making up less than a fifth of their exports.

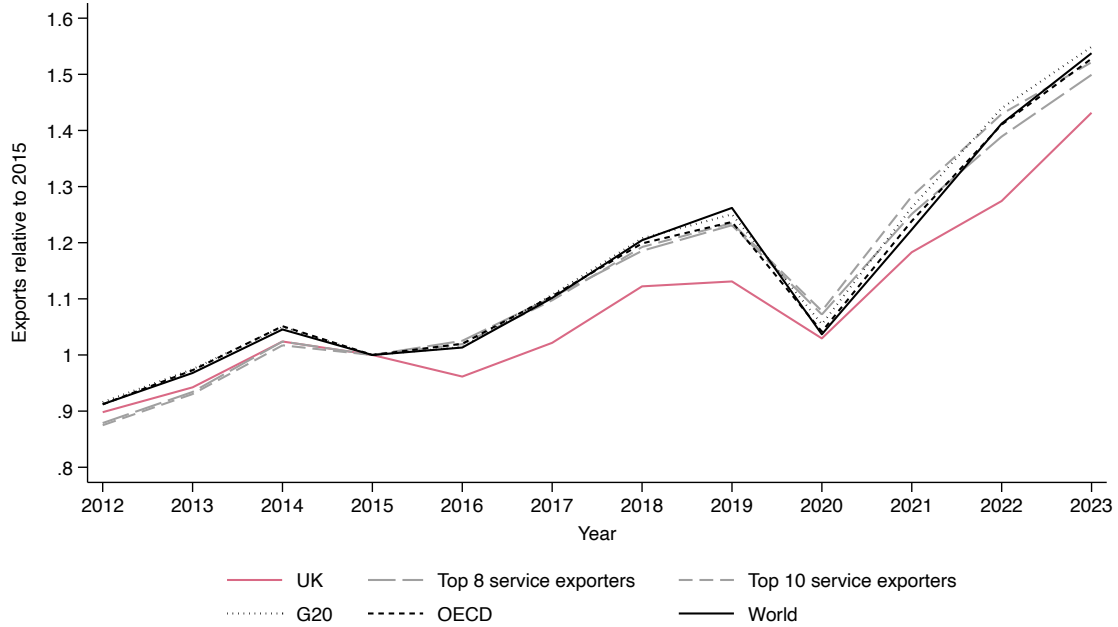
The UK has had a long-standing specialisation in services, even before the rapid deindustrialisation of the economy. In the 1980s, the UK was already exporting double of the global share of services exports, and by 2019, services made up about 70 percent of value-added exports. Historically the UK's specialisms have remained stable over time, and this feature of persistence in comparative advantage is similar to other advanced economies.⁵ Since at least the 1980s (when coverage of worldwide trade data becomes more comprehensive), the UK has exhibited a revealed comparative advantage in services. Within this services specialism, financial services, insurance, and other business services are key comparative advantage services, in which the UK exports more than double the global average shares. Other services where the UK's export share exceeds the global average include personal, cultural, and recreational services including education, and based on patents data, the UK has a revealed technological advantage in intellectual property, such as royalties to broadcast UK-produced television shows and films and patents in biotechnology and life sciences (see De Lyon et al. (2022) for analysis of revealed comparative advantage).

The UK remains the second largest exporter of services in the world, but export growth has been slower in recent years and the UK has been losing global market share. Figure 2.1 shows trends from the raw data. UK services exports have grown more slowly than worldwide services exports, or exports of groups of peer countries since Brexit. There was a slight slowdown after the referendum to leave the EU in 2016, and the divergence has become much more marked after the actual departure from the EU when the new agreement came into force in 2021. The UK's specialisation in services increased over a long period of deepening economic integration with the EU. The single market continues to be the deepest international economic agreement in the world, supported by freedom of movement and mutual recognition of standards regimes. The UK is no longer part of the single market, and the post-Brexit trade agreement has higher trade barriers for UK exports to the EU, particularly in a number of regulated services, for which it contains limited provisions for trade and investment liberalisation. A natural question arises:

⁵Across the OECD economies, a country's revealed comparative advantage (RCA) in a product ten or even thirty years ago is a good predictor of that country's RCA today.

have bilateral barriers with the EU after Brexit had a role to play in the relative under-performance of UK services exports in recent years. We examine this by taking a deep dive into the trade barriers that have come into place in the next sub-section.

Figure 2.1: Growth in services exports: United Kingdom, World and Country Groups



Notes: BaTIS data. The UK is excluded from the World and Other Country Groups.

2.3 Brexit Barriers

The Trade and Cooperation Agreement establishes the basis for the post-Brexit economic relationship between the UK and the EU. Chapters 2 and 3 (Part Two, Heading One, Title II) of the Agreement lay down Most Favoured Nation (MFN) and National Treatment (NT) provisions for investors, enterprises and suppliers of the two trading partners. The Chapters limit countries from imposing market access requirements and others related to performance requirements, restrictions on nationality/residency of senior management and board of directors, and local presence conditionalities. These provisions do not apply when countries express reservations to trade and investment liberalisation for a service, recorded in Annex 19 of the TCA. Individual countries may have domestic laws for foreign service providers that do not conform to the principles of trade and investment liberalisation in Chapters 2 and 3. In that case, the domestic law, recorded in Annex 19, is upheld and not the provisions in Chapters 2 and 3 that remove trade and investment barriers for each others' providers.

There are ten types of provisions against which reservations can be taken - MFN in trade, MFN in investment, NT in trade, NT in investment, Market Access in trade, Mar-

ket Access in investment, Performance Requirements in investment, Senior Management in investment, Local Presence in trade, and NT/MFN/Market Access in Real Estate.⁶ Appendix A.1 defines these provisions, as stated in the TCA. Reservations depart from MFN and NT principles and/or impose market access and other requirements on foreign providers. These can include requirements on the value of transactions or the number of employees, export conditionalities, and requirements for establishment of enterprises to service the country. The reservations are codified with qualified legal expertise, at the level of the provision, importing country and service-type (5-digit CPC codes), by creating indicator variables that take a value of 1 if a legally binding reservation is imposed in the agreement and 0 if not. The reservation measure is therefore an indicator of de jure barriers to trade and investment liberalisation, namely non-conforming laws which are protected from challenge, after Brexit.

To illustrate the construction of the reservation measure, we start with a straightforward example shown in Figure 2.2 covering biological technical testing and analysis services (that includes CPC code 86761).⁷ Under domestic French law, the professions of biologist are reserved for natural persons with European Economic Area (EEA) nationality. France takes a reservation on the provisions of market access and national treatment in trade and investment (listed as CPC code 8676 in the TCA along with the applicable domestic law under Measures). The reservation measures for these four provisions take a value of 1 for UK exports to France. The overall reservation measure of CPC code 86761 is accordingly 0.4, when averaged across all ten potential non-conforming provisions in the TCA. Some of the other EU members, such as Germany, do not take this reservation and hence are coded as zero for the provisions in this CPC code. (Figure A.1 in the Appendix provides another illustration for placement services provided by UK firms to Germany and Spain).

The reservation measure gets more complex to codify when multiple laws and reservations apply to the same service and when the exact CPC codes pertaining to a reservation are

⁶Real estate is specified separately but it is not an explicit provision in the TCA. The variable allows us to record reservations pertaining to real estate separately from those pertaining to the conduct of the business in a particular sector. In particular, National Treatment in real estate relates to the acquisition of real estate by foreign firms or persons for specific purposes, and not to national treatment in the conduct of the business of the provider, that is contained in National Treatment in trade and investment. A reservation on NT in acquisition of real estate, if taken out by a country, applies to all sectors. For some countries, the reservations pertaining to real estate may also be applicable to MFN and Market Access, but we record them as a single reservation for real estate to distinguish them from provisions related to the sector of business of the provider.

⁷CPC code 86761 is Composition and purity testing and analysis services, and covers “Testing and analysis services of the chemical and biological properties of materials such as air, water, waste (municipal and industrial), fuels, metal, soil, minerals, food and chemicals. Included are testing and analysis services in related scientific fields such as microbiology, biochemistry, bacteriology, etc. Excluded are medical and dental testing services.”

Figure 2.2: Examples of Brexit reservations in EU destination-services

(d) Technical testing and analysis services (CPC 8676)

With respect to Investment liberalisation – Market access, National treatment and Cross-border trade in services – Market access, National treatment:

In CY: The provision of services by chemists and biologists requires nationality of a Member State.

In FR: The professions of biologist are reserved for natural persons, EEA nationality required.

Measures:

CY: Registration of Chemists Law of 1988 (Law 157/1988), as amended.

FR: Code de la Santé Publique.

not specified in the legal text. For example, one of the more complex service barriers we encountered is on UK exports of Legal services covered by CPC code 861 (see Figure A.2 in the Appendix for relevant texts of the TCA). EU law imposes legal form requirements that comprises a reservation on market access in investment liberalisation. Because of its general wording, the EU law is judged to apply to all services within CPC code 861 for each member country by confirming that exceptions do not arise in the rest of the legal text related to these services. Additionally, German law imposes restrictions on shareholding in law companies by foreign lawyers (other than EEA and Swiss qualified ones) and Germany therefore takes reservations on the provisions of market access and national treatment for both investment and cross border trade in services. These apply to designated legal services, that are judged to be covered by CPC codes 8611 and 8612 as they are closest in description to the TCA and the applicable domestic laws.⁸ There are also further reservations that Germany takes on other legal services, that is judged to apply to CPC code 8619.⁹ German law imposes restrictions on shareholding by foreign lawyers and commercial presence, and only permits lawyers with EEA or Swiss qualifications to be admitted to the Bar and become entitled to provide these services, with certain exceptions that can be granted. In this example of CPC code 861, we had to account for descriptions of the services in the TCA and the applicable domestic laws, together with

⁸8611 - Legal advisory and representation services in the different fields of law. 8612 - Legal advisory and representation services in statutory procedures of quasi-judicial tribunals, boards, etc.

⁹8619 - Other legal advisory and information services comprises of 86190 - Advisory services to clients related to their legal rights and obligations and providing information on legal matters not elsewhere classified. Services such as escrow services and estate settlement services are included.

the wording of the legal texts, to determine the values for our measure of reservations in each finer CPC code within this sector.

2.4 Measures of Brexit Barriers

There are ten indicator variables for each of the ten provisions - the four provisions from Chapter 3 on cross-border trade in services (Market Access, National Treatment, Most Favoured Nation and Local Presence) and the six provisions from Chapter 2 on investment (Market Access, National Treatment, Real Estate, Most Favoured Nation, Senior Management and Board of Directors, Performance Requirement). The ten indicators can vary by 27 EU importing countries and 713 services (CPC 5-digit codes). This gives $10 \times 27 \times 713$ sources of policy variation in the Brexit barriers from reservations on distinct provisions across different service-destinations within the EU.

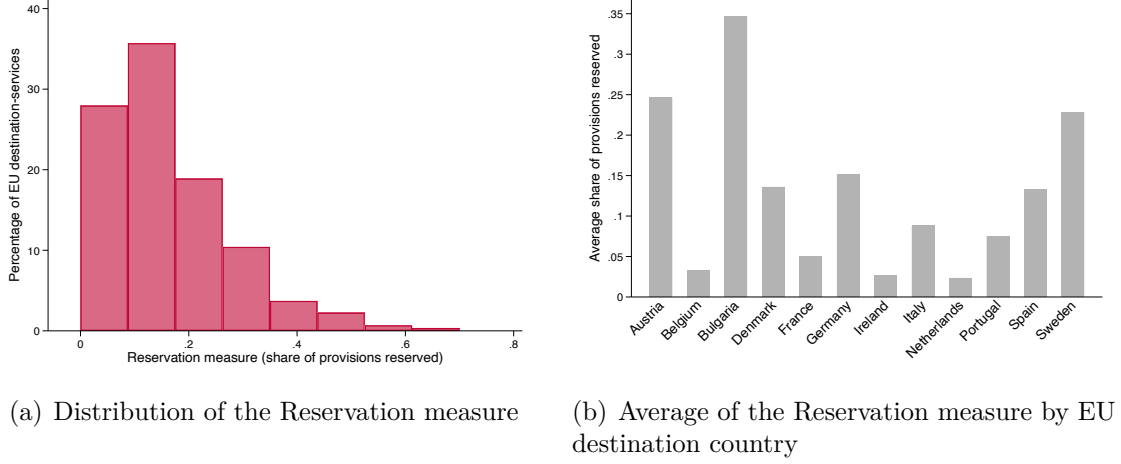
In our analysis, the measure of reservation is defined as the average of the indicator variables for the ten provisions for which an EU destination country d can take a reservation for each CPC code c exported by the UK:

$$Reservation_{dc} = \sum_p \mathbb{1}\{Reservation_{dpc}\} / \sum_p 1_{pc} \quad (2.1)$$

Provision p is one of the ten provisions on which a reservation can be taken and therefore $\sum_p 1_{pc} = 10$ for any service c defined as a 5-digit CPC code. Consequently, $Reservation_{dc}$ takes a value of 0 if there are no reservations on any provisions and it is 1 if reservations are taken on all ten provisions. On average, a CPC code has a reservation imposed on at least one provision by two-thirds of the member states and a CPC code has a reservation imposed by at least one of the EU countries for, on average, 6.12 out of 10 provisions.

In Figure 2.3, the left panel shows the distribution of the reservation barriers and the right panel shows the average barrier by country. About 30 percent of destination-services pairs do not have any reservations imposed on them. The average reservation value for a reserved service is 13.8 percent (see Table 10 in Appendix A.2 for summary statistics), with a mode of one reservation per destination-service. Austria, Bulgaria and Sweden have imposed reservations on more services relative to the other EU countries, while Belgium, Ireland and Netherlands have allowed for freer cross-border trade and investment. Overall, reservations are broad-based in terms of coverage of destination-services and provisions.

Figure 2.3: Brexit reservations in EU destination-services



3 Empirical Analysis

With the reservation measures in hand, this section examines the impacts of the reservations of the TCA on UK-EU trade. We start with a description of the trade in services data and the corresponding barrier measure for the analysis. Then the baseline gravity specification is explained, followed by key results for the trade effects of barriers. We consider spillovers to other EU and non-EU destinations (that do not impose the barriers on their own) to determine the overall effects of Brexit barriers.

3.1 Trade data and Brexit Barriers

The main variable of interest for our empirical analysis is exports of services to the EU and the rest of the world. Annual bilateral trade data comes from the OECD-WTO Balanced Trade in Services (BaTIS) dataset. To the best of our knowledge, this is the most comprehensive and up-to-date database of services trade worldwide. It consists of 201 countries (or territories) and covers all 21 External Balance of Payments Services (EBOPS) 2010 service categories, over the years 2010 to 2023. The database adjusts for missing values and balances export and import flows through all possible mirror transactions, and therefore covers a much larger number of countries and services categories than other standard data sources for services trade, such as the WIOD and ITPD-E, that are commonly used in the study of trade patterns and the welfare gains from trade. We start our time period from 2012 to reduce any effects of the Euro crisis, while allowing for a sufficiently long pre-period before the referendum to account for any pre-trends.

To examine robustness, we further use data on more disaggregated services trade flows from the OECD for 2015 to 2023, together with data on UK trade flows by trading partner,

service type and quarter, provided by the Office of National Statistics (ONS). We start in 2015 because it is the first year that more disaggregated service by country data are available and the same product classification is maintained throughout the post-TCA period. These datasets also categorise services by EBOPS 2010, but they are available for a smaller set of countries because even some advanced economies, such as Japan and Singapore, do not report finer services products. Because the coverage of bilateral flows varies over time, we focus on worldwide and EU-wide exports that are consistently reported in this database.

For each trade database, we match the EBOPS classification of the trade data to the CPC classification, at which reservations are taken in the TCA. To create a dataset for the empirical analysis where trade flows are by EBOPS codes, we follow the literature on non-tariff barriers to create measures of prevalence of reservations for each EBOPS code i in importing destination country d (from source exporting country s which is the UK because we focus on Brexit barriers on UK exports) as:¹⁰

$$Barriers_{di} = \sum_{c \in i} \left(\sum_p \mathbb{1}\{Reservation_{dpc}\} \right) / \sum_{c \in i} \sum_p 1_{pc} \quad (3.1)$$

where p is one of the ten provisions on which a reservation can be taken and therefore $\sum_p 1_{pc} = 10$ for any service c defined as a 5-digit CPC code contained in an EBOPS code i , and we take the average prevalence of reservations across all CPC codes to get the barrier measure for each EBOPS code. Consequently, $Barriers_{di}$ is 0 if there are no reservations for any service categories within an EBOPS code and it is 1 if all 5-digit CPC codes within an EBOPS code have reservations on all ten provisions. In practice, the barrier measure is defined over 27×21 destination-services and ranges from 0.4 percent to 70 percent, with a mean of 18.8 percent (see Table 10 in Appendix A.2 for summary statistics).

3.2 Services Exports and Barriers from Brexit

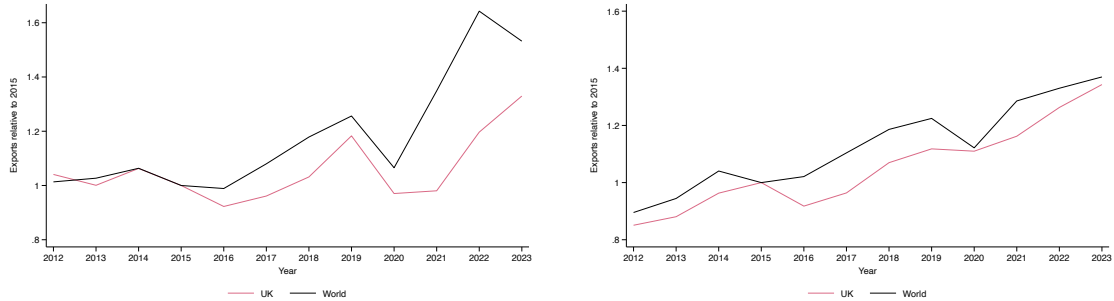
In section 2, we showed that growth in overall UK exports of services had not kept pace with that of the world and other relevant country groups in recent years. We now examine whether this was a result of Brexit barriers that came into place when the UK exited regulatory alignment with the EU. As a starting point, we show the simple difference-in-differences statistics for the evolution of UK's exports of services that got Brexit barriers

¹⁰Count measures of NTBs are standard in the literature. For example, [Bown & Crawley \(2016\)](#) examine the number of antidumping or safeguard measures applicable within a HS6 product type and [Conconi et al. \(2018\)](#) provide the number of Rules of Origin applicable on a HS6 product type. For a detailed review of various NTB measures, see [Disdier et al. \(2020\)](#).

and those that did not, relative to worldwide exports of those services.

Figure 3.1 plots the raw data on services export growth by reservations over time. Services that got the highest barriers (in the top 75th percentile or above) are plotted in the left panel, and services categories that got the lowest barriers (in the 25th percentile or below) are shown in the right panel. All countries other than the UK are shown as the black line for the rest of the World. Exports are indexed to 1 in 2015, just a year before the Referendum was held. The growth trajectories for both types of services were fairly similar across the UK and the rest of the World before the TCA in 2021. While UK exports of services that got the lowest Brexit barriers was somewhat slower than the rest of the world's exports throughout the post-referendum period, growth rates of these services kept catching up steadily over time, including after Brexit. In contrast, UK export growth in services that got the highest Brexit barriers diverged much more substantially in the post-Brexit period. Growth in these services was also somewhat slower after the referendum, and had started to catch up slightly afterwards. But, then a period of stagnation followed when the UK left the EU, and these service exports did not recover to the growth seen in worldwide exports.

Figure 3.1: Growth in services exports of the UK and the World, by intensity of Brexit barriers



(a) Services with barriers in the 75th percentile or above

(b) Services with barriers in the 25th percentile or below

Notes: The UK is excluded from the World.

The simple descriptive statistics suggest that the Brexit barriers slowed UK services export growth in the most affected services, despite the substantial rise seen in worldwide services export growth during the post-Brexit period. We can examine this more systematically by doing a like-for-like comparison where we compare exports of the UK and other countries in the same destination-service. The following specification for the value of exports to the world is estimated:

$$\ln(Export_{sit}) = \beta (Post_t \times UK_s \times Barriers_i) + \alpha_{si} + \alpha_{it} + \varepsilon_{sit} \quad (3.2)$$

where s is the exporter or source country, i is the service, t is year, $Post_t = \mathbb{1}\{t \geq 2021\}$ is an indicator for the post-TCA period and $UK_s = \mathbb{1}\{s = UK\}$ is an indicator for the UK as the exporting source country. $Barriers_i$ is the average of barriers across all importing country destinations d , that is 0 in non-EU importing destinations and positive in EU destinations that take reservations for some services within i . The dependent variable is the total exports of service i from source country s to the world at time t . We take logs of the export value, as is standard, and because the dataset has few zeros from the balancing and aggregation to the world. Exports of countries to the UK are excluded (i.e. we remove the UK as a destination) to ensure that the results are not driven just by changes in UK imports. Exporter-service fixed effects are included, implying that we are examining the change in exports of a source-service over time. Service-time fixed effects are included to control for changes to demand and supply for a service over time, such as from changes in tradability, technology or tastes. Therefore, the results for the coefficient of interest β need to be interpreted as the growth in UK exports of a service, relative to worldwide exports of that service after the TCA.

We estimate the specification for exports to the world and for exports to the EU. Exports to the EU are likely to be negatively affected by the reservations that come into place after the TCA because the increase in trade barriers applies specifically to destination countries in the EU. Exports to the world may also be affected through the direct negative effects on exports to the EU and through the indirect effects on exports to non-EU countries. The sign of the indirect effects is theoretically ambiguous. UK exporters could expand sales to non-EU countries because they gain an efficiency advantage from removal of EU regulatory burden, as suggested by the Brexit campaign. Additionally, exports to non-EU destinations could rise as a trade diversion strategy (Almunia et al. (2021)). Alternatively, UK exports to destinations outside the EU could experience slower growth if the UK has a reduced ability to be an export platform for non-EU countries to export to the EU after Brexit (Tintelnot (2017)).

Table 1 shows the results from estimating equation 3.2. UK exports of services grew much more slowly than the rest of the world after Brexit, and the estimated coefficient shows that the divergence was more pronounced for services that got Brexit barriers. The average effect (in bold) is obtained from the mean barrier across all services exports of the UK and computed as $\exp(\beta \times \text{Trade-weighted mean of } Barriers_i) - 1$. At the mean of the barrier measure applicable to UK's total exports to the EU, we find a 9.6 percent fall in UK exports to the EU due to Brexit barriers, relative to other countries' exports before and after the TCA. Examining total exports of the UK to the world, the relative fall in UK's exports is 5.1 percent, on average. The loss of market access for the UK in the EU was therefore not substituted for by increased exports to non-EU countries, leading to an

overall slowdown in UK’s services exports compared to exports of those services by the rest of the world after Brexit.¹¹

Table 1: Brexit Barriers and services exports of countries to the World and the EU

Log Exports _{si}	World (1)	EU (2)
$Post_t \times UK_s \times Barriers_i$	-2.851 ^a (0.719)	-0.735 ^a (0.128)
Fixed effects:		
Source-Service α_{si}	yes	yes
Service-Time α_{it}	yes	yes
Observations	50,399	50,351
Average Effect on UK Exports (Standard Error)	-0.051^a (0.013)	-0.096^a (0.016)

Notes: Estimation uses BaTIS data, with log of exports by source country s , service category i and year t , to the world or to the EU in columns (1) and (2) respectively as dependent variables. $Post_t$ is 1 from 2021 onwards and is 0 in earlier years, UK_s is 1 when the UK is the exporting source country and 0 otherwise. $Barriers_i$ is the average of Brexit barriers across all importing destinations, as explained in the text. Average Effect on UK Exports (in bold) is the product of the mean $Barriers_i$ across all destinations and the estimated coefficient (adjusted to account for the log specification). Source-service and service-time fixed effects are included. Standard errors, clustered by source, in parentheses. (a), (b) and (c) indicate significance at 1%, 5% and 10% levels respectively.

3.3 The Impact of Brexit Barriers on UK Exports

The overall trend in UK services exports of reserved services can be investigated by exploiting the variation in barriers and trade across different EU importers. The standard way to examine the effects of trade barriers on exports is to specify a gravity equation of trade where trade barriers, along with appropriate source, destination and product trends are included to causally interpret the estimated bilateral trade effects as arising from bilateral trade barriers (Head & Mayer (2014)).

We estimate the baseline specification for exports at the source-destination-service-year level to specifically identify the relative effect of the barriers on the importing EU country that imposes the barrier, as follows:

$$\ln(Export_{sdi}) = \beta_1 (Post_t \times UK_s \times EU_d \times Barriers_{di}) + \alpha_{sdi} + \alpha_{sit} + \alpha_{dit} + \alpha_{sdt} + \varepsilon_{sdi} \quad (3.3)$$

where in addition to notation described above, d = importing destination country and EU_d takes the value of one for EU importing destination countries and 0 for others. It is

¹¹Alternative data on services trade from OECD and ONS contains 49 services categories between 2015 to 2023, but has fewer source countries. The corresponding average effect on worldwide UK exports using this alternative database turns out to be highly similar at -4.5 percent.

interacted with $Barriers_{di}$ that ranges from 0 to 1, as explained earlier. The variable of interest is $Post_t \times UK_s \times EU_d \times Barriers_{di}$ which is positive for the UK for a reserved EU destination-service and 0 for all other source-destination-service sdi triplets. To fix ideas in terms of the example of Figure 2.2, this would mean the measure is positive for UK services of technical testing exported to France, but not to other EU countries (such as Germany) that do not take a reservation in technical testing services.

The specification includes source-destination-service fixed effects and therefore, we are examining the change in exports of the source-destination-service. Source-service-time sit fixed effects control for source-service shocks, such as reduced supply in certain occupations in the source country. Destination-service-time dit fixed effects control for destination-service shocks, such as demand shocks or destination-service nominal shocks. Inclusion of source-service-time and destination-service-time are well-understood in the trade literature to account for sources of endogeneity arising from selection into trading and integration agreements, and are a standard way of controlling for various demand and supply shocks in a product. Finally, source-destination-time sdt fixed effects are included to account for country-pair shocks, such as bilateral exchange rate movements. Inclusion of these more stringent fixed effects means that the estimated coefficient β needs to be interpreted as the effect of the Brexit barriers on exports of the UK in a service, relative to worldwide exports of that service and relative to UK exports of that service to non-EU countries as well as countries in the EU that do not take a reservation in the TCA for that service.

The key variable of interest in our study, Brexit barriers, can be defined at the level of the source-destination-service (or destination-service for the UK). This is an important aspect of the specification because it makes for a sharp research design, that to the best of our knowledge has not been exploited in studies of services trade, deep international integration or Brexit. The usual approach is to specify trade barriers at the source-destination level because variation in trade barriers is difficult to measure. A similar approach is taken in Brexit studies, where the coefficient of interest is estimated as $\beta (Post_t \times UK_s \times EU_d)$, because tariffs are uniformly zero across goods and EU destinations and because non-tariff barriers arising from the TCA, such as customs checks, are hard to determine at the destination-product level. Consequently, studies have typically needed to rely on overall source-destination trade effects to identify the impacts of trade barriers. In contrast, we are able to exploit an additional difference - services that have trade barriers imposed and those that do not, and in fact, even more coming from the measure varying continuously over reserved service-destinations with a range of 0.4 to 70 percent. If it turns out that the negative overall services exports of the previous sub-section is driven by EU destination-services that were not directly introducing a reservation, then it would be

harder to interpret the negative effects as being a result of increased trade barriers from Brexit. This is a key insight of the gravity literature, that bilateral trade effects can be identified from bilateral trade barriers, controlling for country and product trends that account for other effects that may not be directly related to the trade barriers and account for multilateral resistance (arising from spillovers of trade barriers to non-imposing countries). In our setting, the service-destination trade barriers enable directly linking bilateral trade costs to bilateral non-tariff barriers at a granular level specified in the TCA by estimating $\beta (Post_t \times UK_s \times EU_d \times Barriers_{di})$.

Table 2 shows the results of the source-destination-service-time specification. The estimated coefficient on Brexit barriers is -0.918 percent, that can be interpreted as: UK services that have all service lines (5-digit CPC codes) reserved under all ten provisions in the TCA experience a reduction in exports of 91.8 percent, relative to other bilateral exports (that include UK exports to EU destinations which do not impose reservations, bilateral exports between other countries of the same service, and bilateral exports of all other services). For ease of interpretation and to obtain a meaningful quantification of the average trade barriers from the TCA, we evaluate the average effect of the reservation at the mean value of the barriers (0.188 as in Table 10 in appendix A.3), and adjust for the log specification to arrive at the Average Effect on affected UK exports (in bold). On average, Brexit barriers reduce UK exports of a reserved service to an EU country that takes a reservation in that service by 15.8 percent.

Before interpreting these results in the causal gravity way, we also explore pre-trends in the exports of source-service-destinations that had barriers imposed on them and those that did not get reservations under the TCA. An event study that allows for time-varying coefficients for the variable of interest is estimated. Additionally, the event study now explicitly separates out exports to EU destinations for service categories where no service line is reserved by any EU destination, and therefore does not contain source-destination-time fixed effects (because they would subsume the services with no barriers that are being estimated here). The coefficients on barriers for the reserved services need to now be interpreted relative to bilateral exports between other country-pairs of the same service or bilateral exports of all other services except UK exports to EU destinations that do not impose reservations because these are now separately estimated.

Table 2: Effect of Barriers on UK Exports to the EU: Baseline

Log Exports _{sdi}	Bilateral (1)
Post _t × UK _s × EU _d × Barriers _{di}	-0.918 ^a (0.238)
Fixed effects:	
Source-Destination-Service α _{sdi}	yes
Source-Service-Time α _{sit}	yes
Destination-Service-Time α _{dit}	yes
Source-Destination-Time α _{sdt}	yes
Observations	8,417,183
Average Effect on UK Exports (Standard Error)	-0.158 ^a (0.038)

Notes: Estimation uses BaTIS data, with log of exports by source country, destination country, service category and year as dependent variable. $Post_t$ takes a value of 1 from 2021 onwards and is 0 in earlier years. UK_s is 1 when the UK is the exporting source country and 0 otherwise. EU_d is 1 when the destination country is an EU country. $Barriers_{di}$ is constructed from the TCA as explained in the text. Average Effect on UK Exports is the product of the mean $Barriers_{di}$ across all destination-services that introduced a reservation and the estimated coefficient (adjusted to account for the log specification). Source-destination-service, source-service-time, destination-service-time and source-destination-time fixed effects are included. Standard errors, clustered by source-destination-service, in parentheses. (a), (b) and (c) indicate significance at 1%, 5% and 10% levels respectively.

The specification can be re-written as:

$$\begin{aligned}
\ln(Export_{sdi}) = & \sum_{t \neq 2020} \beta_{1t} (Year_t \times UK_s \times EU_d \times \mathbb{1}\{Barriers_{di} > 0\} \times Barriers_{di}) \\
& + \sum_{t \neq 2020} \beta_{2t} (Year_t \times UK_s \times EU_d \times \mathbb{1}\{Barriers_{di} = 0\}) \\
& + \alpha_{sdi} + \alpha_{sit} + \alpha_{dit} + \varepsilon_{sdi}
\end{aligned} \tag{3.4}$$

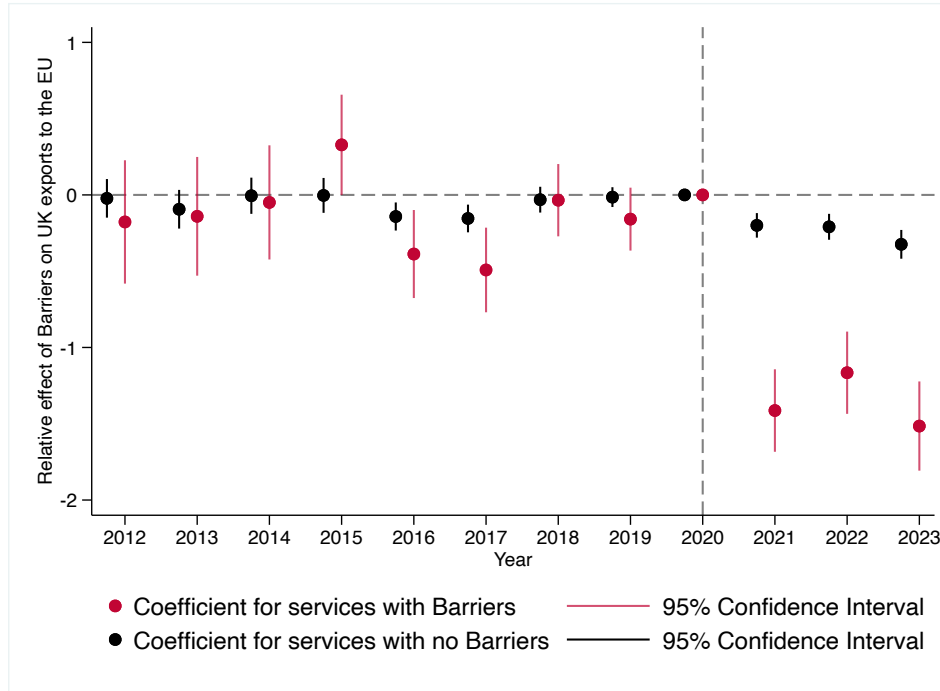
where in addition to notation described above, $Year_t$ is an indicator for each of the years t from 2012 to 2019 and 2021 to 2023, with 2020 being the year to which the coefficients are normalised (because the TCA comes into force in 2021 and it is standard to normalise to the time period just before the event of interest). Time-varying coefficients are estimated for each of these years and we plot both sets of coefficients - β_{1t} for barriers of reserved UK-EU services and β_{2t} for UK services to EU destinations that are not reserved. Note that both sets of coefficients are estimated relative to bilateral exports of other countries to the EU or each other.¹²

Figure 3.2 shows the coefficients β_{1t} (in red) and β_{2t} (in black). Relative to exports of

¹²UK as an importer is excluded from the estimation sample, as before.

countries other than the UK, and to the value of UK exports in 2020, exports of the UK to the EU that were subject to barriers saw a sharp fall after the UK left the single market in 2021. There was almost no difference between growth in UK exports and exports of other countries to EU destinations before 2020, just before the new trading rules came in. Growth in exports of both types of services – those that later do not get any Brexit barriers (in black) and those that later get Brexit barriers from 2021 onwards (in red) were similar to other countries’ export growth – around the zero difference horizontal line. After the Brexit barriers from the new trading arrangement came into force in 2021, UK exports in services that got Brexit barriers slowed down much more sharply. There is a small negative effect soon after the Brexit referendum in 2016 for both types of services, but the effects do not persist. And overall the pre-trends are similar across bilateral exports and enable us to interpret the results causally through the gravity framework.

Figure 3.2: Event study for relative effects of Barriers



Notes: Estimation uses BaTIS data, with log of exports by source country, destination country, service category and year as dependent variable in equation 3.4. β_{1t} (coefficient for exports with barriers) and β_{2t} (coefficient for exports with no barriers) are plotted, along with their 95 percent confidence intervals.

To sum up, a standard gravity model of trade between country pairs is estimated, with appropriate fixed effects - source-destination-service, source-service-time, destination-service-time - to arrive at the elasticity of services trade to trade barriers induced by Brexit. We find that growth in UK exports of services to EU countries that were reserved after Brexit was 15.8 percent lower than exports that were not subject to such barriers.

3.4 Spillovers of Brexit Barriers on Exports to the EU and the World

Reservation in a service by an EU destination could affect UK exports of that service to other EU and non-EU destinations, even if they have no barriers of their own. This sub-section considers spillovers of the barriers to destinations that do not impose barriers themselves.

We estimate the baseline specification for exports at the source-destination-service-year level to specifically identify the spillover effect of the barriers on the destinations other than the EU country that imposes the barrier:

$$\begin{aligned} \ln(Export_{sdi}) = & \beta_1 (Post_t \times UK_s \times EU_d^{own} \times Barriers_{di}) \\ & + \beta_2 (Post_t \times UK_s \times Spillover_{di}) \\ & + \alpha_{sdi} + \alpha_{sit} + \alpha_{dit} + \alpha_{sdt} + \varepsilon_{sdi} \end{aligned} \quad (3.5)$$

where EU_d^{own} is 1 for destinations that take a reservation and hence have a positive $Barriers_{di}$. We distinguish it from the variable in the second line where spillovers from others' barriers are also accounted for, and defined as:

$$Spillover_{di} = \mathbb{1}\{Receiver_d\} \times \mathbb{1}\{\sum_d Barriers_{di} > 0\}$$

where $Receiver_d$ is an indicator for destinations that receive the spillovers in services with some barriers, $\mathbb{1}\{\sum_d Barriers_{di} > 0\}$, through reservations from at least one EU destination on one or more provisions.

To measure spillovers to EU destinations that do not take on any reservations, $Receiver_d$ is defined as EU_d which includes EU destinations that take a reservation and those that do not. Then β_1 determines the effect on a reserved service of $Barriers_{di}$ over and above that for any other EU destination, including one that does not have domestic laws that go against trade and investment liberalisation of the TCA. EU destinations that do not have any reservations get the spillover estimated in β_2 . While β_2 is identified relative to non-EU countries in the same destination-service and other non-exposed bilateral exports, β_1 also contains the intensity of barriers (ranging from greater than zero to one). Spillovers to non-EU destinations can similarly be measured by defining $Receiver_d$ as non-EU destinations and EU destinations that take reservations under the TCA. Then β_2 is the effect, relative to the left out destination in that service - the EU destinations that do not take any reservations, as well as other bilateral flows of non-exposed source-destination-services.

Table 3 shows that the spillovers to other EU destinations are small and positive, but statistically indistinguishable from zero. β_1 has a negative effect as before and the magnitude is highly similar to the baseline specification, showing that the coefficient is driven by own barriers of a reserving EU destination. Spillovers to the world are slightly larger and positive, but again statistically insignificant.¹³

Table 3: Effect of Barriers on UK Exports: Spillovers

Log Exports _{sdi}	Spillovers to:			
	EU		Non-EU	
	(1)	(2)	(3)	(4)
Post _t × UK _s × EU _d × Barriers _{di}	-0.955 ^a (0.291)	-1.092 ^a (0.327)	-0.972 ^a (0.246)	-1.092 ^a (0.327)
Post _t × UK _s × Receiver _d × 1{Barriers _i } :				
Barrier-imposing EU country and other EU countries	0.020 (0.076)			
Barrier-imposing EU country		-0.042 (0.097)		
Other EU countries		0.099 (0.097)		
Barrier-imposing EU country and non-EU countries			0.076 (0.088)	
Barrier-imposing EU country				-0.042 (0.097)
Non-EU countries				0.057 (0.084)
Fixed effects:				
Source-Destination-Service α_{sdi}	yes	yes	yes	yes
Source-Service-Time α_{sit}	yes	yes	yes	yes
Destination-Service-Time α_{dit}	yes	yes	yes	yes
Source-Destination-Time α_{sdt}	yes	yes	yes	yes
Observations	8,417,183	8,417,183	8,417,183	8,417,183

Notes: Estimation uses BaTIS data, with log of exports by source country, destination country, service category and year as dependent variable. Post_t is 1 from 2021 onwards and 0 in earlier years. UK_s is 1 when the UK is the exporting source country and 0 otherwise. EU_d is 1 when the destination country is an EU country. Barriers_{di} is constructed from the TCA as explained in the text and 1{Barriers_i} is 1 for a service that has $\sum_d \text{Barriers}_{di} > 0$. Receiver_d is 1 for the barrier-imposing EU destination and other EU destinations in columns (1) and (2), and Receiver_d in columns (3) and (4) is 1 for the barrier-imposing EU destination and non-EU destinations. Columns (2) and (4) separate the barrier-imposing country from other EU countries and non-EU countries. Source-destination-service, source-service-time, destination-service-time and source-destination-time fixed effects are included. Standard errors, clustered by source-destination-service, in parentheses. (a), (b) and (c) indicate significance at 1%, 5% and 10% levels respectively.

Having estimated negligible spillovers to other EU and non-EU destinations of UK exports, we can determine the overall effect of Brexit barriers on UK services exports.

¹³Adding both EU and non-EU spillover variables in together, we still find that the spillovers are (individually and jointly) statistically insignificant, and β_1 remains close to its baseline value. The own destination effect for the spillover cannot be separately identified from the fixed effects, and we therefore prefer the individual specifications of Table 3.

Relative to other source-destinations, UK exports fall by $-0.158 \times \text{Initial trade share of EU destinations that take on reservations in UK's total worldwide exports of all services (25.7 percent)} = -4.1$ percent of the initial value of UK exports. We find that the gravity estimates provide a slightly smaller absolute worldwide effect of -4.1 percent compared to -5.1 percent in the more aggregated specification of Table 1, but the numbers remain close to each other across the different specifications.

4 Robustness and Discussion

In this section, we examine refinements of the main finding of a negative effect of non-tariff barriers to UK services exports after the TCA. There are three broad sets of extensions on: Anticipation and Timing, Reference Groups for comparisons and Pre-Brexit barriers to trade with the EU. We then discuss our results in the context of key research questions in the international economics literature - imports into the UK, trade and investment complementarity and the services trade elasticity that is relevant for the quantification of the welfare gains from trade.

4.1 Robustness

This sub-section examines robustness in light of the referendum and the timing of the pandemic. Then we proceed to examining different reference groups to benchmark UK's export performance. We next consider performance differences based on pre-Brexit barriers to trade with the EU and within the single market.

Anticipation and Timing

The event study in Figure 3.2 shows a small fall in exports after the Brexit referendum in 2016. Exporters and importers could have anticipated the reservations that came into place later in the TCA. To take such anticipatory effects into account, we include interactions of the barriers with a dummy variable that takes the value 1 for the period after the Brexit Referendum but before the TCA came into effect. $Referendum_t$ accordingly takes a value of 1 for the years from 2016 till 2020 and 0 otherwise. As seen in the event study, the estimated coefficient is negative for the post-referendum period, but much smaller than the magnitude for the post-TCA period and also statistically insignificant. The baseline coefficient for the post-TCA period barely changes, as shown in Column 1 of Table 4. There does not appear to be any economically or statistically significant effect of anticipation of reservations and the main finding of new trade barriers reducing UK services exports to EU destinations remains robust to inclusion of anticipation effects from the referendum. This result is consistent with Costa et al. (2024) that finds a negligible

export effect from the sterling depreciation arising from the unexpected Brexit vote.

The timing of the TCA coincided with the pandemic and its recovery period of 2021, which affected trade of certain services. Although our destination-service-time and source-service-time fixed effects control for some of these product-level trends, it may be the case that the effects were also felt at the source-destination-service level, such as travel from the UK to specific EU destinations being more affected due to the timing of the lockdowns in the UK and these destinations. Column 2 of Table 4 excludes the years 2020 and 2021, the years of the pandemic and recovery, from the baseline specification. The coefficient of interest stays negative and significant, albeit with a relatively smaller magnitude, indicating that the pandemic amplified the detrimental effect of the TCA barriers. Column 3 excludes travel services from our estimation which were severely affected by the lockdown restrictions imposed by countries to contain the spread of the pandemic. This makes little difference, showing that the results are not driven by travel services and the impact it suffered from the pandemic. By 2022, UK trade recovered from the pandemic but the UK and the EU were also affected by the Ukraine war and Column 4 excludes 2022 to show that results remain robust, with the magnitude changing very slightly.

Table 4: Robustness: Anticipation and Timing

Log Exports _{sdit}	Referendum		Excludes:	
		2020-21	Travel	2022
	(1)	(2)	(3)	(4)
$Post_t \times UK_s \times EU_d \times Barriers_{di}$	-0.993 ^a (0.279)	-0.713 ^a (0.249)	-0.905 ^a (0.283)	-0.887 ^a (0.247)
$Referendum_t \times UK_s \times EU_d \times Barriers_{di}$	-0.170 (0.195)			
Fixed effects	yes	yes	yes	yes
Observations	8,417,183	6,992,275	7,500,990	7,700,127

Notes: Estimation uses BaTIS data, with log of exports by source country, destination country, service category and year as dependent variable. $Post_t$ is 1 from 2021 onwards and is 0 in earlier years. UK_s is 1 when the UK is the exporting source country and 0 otherwise. EU_d is 1 when the destination country is an EU country. $Barriers_{di}$ is constructed from the TCA, as explained in the text. Column 2 includes $Referendum_t$, which is 1 for the years 2016 to 2020 and 0 in other years. Column 3 excludes 2020 and 2021, the years of the pandemic and recovery, and Column 4 excludes Travel services, affected by lockdown measures. Column 5 excludes 2022, the year of the Ukraine war. Source-destination-service, source-service-time, destination-service-time and source-destination-time fixed effects are included. Standard errors, clustered by source-destination-service, in parentheses. (a), (b) and (c) indicate significance at 1%, 5% and 10% levels respectively.

Reference Groups

We can change the comparison to other reference groups of interest, such as how have UK exports performed compared to the reference group of OECD countries and so on. Columns 1 to 3 of Table 5 start from left to right with smaller to larger country groupings.

They show estimates from restricting the estimation sample of source country exporters to groups of major economies - the G7, the G20 and the OECD countries. These different reference groups make little difference to the key finding or the magnitude of the estimated negative effect in the baseline specification.

One concern with the baseline specification is that there are a number of small source-destination-services exports and if these grow faster than the larger ones (that includes UK exports), then we may be over-estimating the absolute magnitude of the reduction through the comparison with faster-growing small services trades. Column 4 of Table 5 uses the average trade value over the sample period as weights in the regression estimation, and we continue to observe a significant negative impact of barriers with the magnitude of the reduction only slightly smaller.

Column 5 takes this analysis further by only keeping UK exports in the estimation sample, thereby estimating the effect of the barriers on UK exports relative to other exports of the UK that are not subject to the Brexit barriers. With the reference group reduced to UK exports unaffected by the TCA, the significant decline in UK exports due to barriers persists. This is important in the light of Figure 1 where world services exports grew faster than that for the UK, and the result in Column 5 shows that it is not simply the choice of reference group that drives the negative effects and that the product comparison within the UK also gives a negative effect on reserved services.

Table 5: Robustness: Reference Groups

Log Exports _{sdit}	G7	G20	OECD	Trade weighted	UK only
	(1)	(2)	(3)	(4)	(5)
$Post_t \times UK_s \times EU_d \times Barriers_{di}$	-0.879 ^a (0.249)	-0.908 ^a (0.236)	-0.854 ^a (0.235)	-0.792 ^a (0.199)	-0.702 ^a (0.225)
Fixed effects	yes	yes	yes	yes	yes
Observations	338,449	1,990,303	1,770,584	8,417,183	49,167

Notes: Estimation uses BaTIS data, with log of exports by source country, destination country, service category and year as dependent variable. $Post_t$ is 1 from 2021 onwards and is 0 in earlier years. UK_s is 1 when the UK is the exporting source country and 0 otherwise. EU_d is 1 when the destination country is an EU country. $Barriers_{di}$ is constructed from the TCA, as explained in the text. G20 does not include the African Union since they joined the G20 towards the end of the time-period in our analysis. Trade-weighted uses average export value of the exporter for the service as weights. In Columns 1 to 4, source-destination-service, source-destination-time, source-service-time and destination-service-time fixed effects are included. Column 5 with only UK exports includes destination-time and service-time fixed effects. Standard errors, clustered by source-destination-service (and by destination-service in column 5), in parentheses. (a), (b) and (c) indicate significance at 1%, 5% and 10% levels respectively.

Pre-Brexit EU Barriers

Some of the non-conforming laws included in the TCA may have applied to the UK even when it was in the EU. For example, there may have been failures by commissions and government bodies in ensuring that non-conforming domestic laws of an EU country did not apply to other EU countries, and hence EU countries were, in effect, subject to the non-conforming laws. To address the issue of potential differences in enforcement of trade barriers across services, we construct an initial pre-Brexit trade barrier measure in a way that is similar to our Brexit barrier measure, where instead of the reservations, pre-Brexit restrictiveness in EU trade is interacted with the product of the Post-TCA, UK and EU indicators.

The OECD’s Services Trade Restrictiveness Index (STRI) quantifies restrictions on foreign entry and movement of people, barriers to competition, regulatory transparency and other discriminatory measures that impact the ease of doing business. The STRI measures MFN restrictions and does not take into account any specific concessions such as regional trade agreements or mutual recognition agreements. It is constructed for 50 countries. The Intra-EEA STRI identifies and catalogues the policy measures that restrict trade within the European Economic Area. We interact the Intra-EEA STRI measure with $Post_t \times UK_s \times EU_d$ and include it as an additional variable in Table 6. This allows for differences in post-TCA exporting based on the initial trade restrictiveness of the service. This STRI-based measure differ from our measure because we specifically focus on the Brexit barriers due to reservations in the TCA. In another specification, we also add the STRI measure for non-EU countries to control for services trade barriers on exports of UK to non-EU. The $STRI_{di}$ measure is interacted with indicators for $Post_t$ and $nonEU_d$ (that takes the value 1 if the destination country is not a part of the EU and 0 otherwise) to account for possible diversion of exports of the UK from EU to non-EU destinations. We take the 2015 values of the two STRI measures because it is the last period before the referendum.

Across the extended specifications, Table 6 shows TCA barriers continue to be negative and significant when STRIs are included, with the magnitude rising slightly compared to the baseline. Therefore the initial levels of trade barriers faced by UK exporters provide a different source of variation from the Brexit barriers arising from the reservations and the effects that we estimate are driven by the changes that occurred from the TCA. We caution against interpreting the STRI coefficients causally, though they are consistent with more muted divergence in the growth of UK exports in services that were initially more protected in the EU.

To sum up, the extended specifications show that the impact of Brexit barriers on UK

Table 6: Robustness: Pre-Brexit Barriers

Log Exports _{sdi}	(1)	(2)	(3)
Post _t × UK _s × EU _d × Barriers _{di}	-0.918 ^a (0.238)	-1.025 ^a (0.247)	-0.994 ^a (0.248)
Post _t × UK _s × EU _d × Intra-EEA STRI _{di}		2.133 ^a (0.819)	2.788 ^a (1.010)
Post _t × UK _s × non EU _d × non-EU STRI _{di}			0.445 (0.400)
Fixed effects	yes	yes	yes
Observations	8,417,183	8,417,183	8,417,183

Notes: Estimation uses BaTIS data, with log of exports by source country, destination country, service category and year as dependent variable. $Post_t$ is 1 from 2021 onwards and is 0 in earlier years. UK_s is 1 when the UK is the exporting source country and 0 otherwise. EU_d is 1 when the destination country is an EU country. $Barriers_{di}$ is constructed from the TCA as explained in the text. The indicator for non-EU countries is $nonEU_d$ that takes a value of 1 if the importing destination country is not an EU member. Estimation uses 2015 values of Intra-EEA STRI and STRIndex constructed by the OECD. Source-destination-service, source-service-time, destination-service-time and source-destination-time fixed effects are included. Standard errors, clustered by source-destination-service, in parentheses. (a), (b) and (c) indicate significance at 1%, 5% and 10% levels respectively.

exports of reserved service-destinations remain substantially negative even after accounting for anticipation from the Brexit referendum, reduced activity and trade during the Covid-19 pandemic and pre-Brexit barriers to sell in the EU, or when the reference group of non-reserved exports is restricted to UK exports of services that did not receive barriers under the TCA or to peer countries such as OECD economies.

4.2 Discussion

The analysis in the baseline and robustness specifications provides evidence that barriers from exiting regulatory alignment with the EU had a negative impact on UK exports. We now discuss our results in the context of three key research questions - the effects of barriers on UK imports, whether trade and investment are complementary and the elasticity of services trade to non-tariff barriers.

UK Imports

We have focused on exports till now, but UK imports were also covered by the TCA. The UK took reservations on imports from the EU (as a trading bloc and not for individual EU countries) and the reservation measure can also be constructed for UK imports. The reservations imposed by the UK on its imports however are uniform for all EU countries, and the measure for UK imports varies by provision and services only, or 10×713 provision-services imported by the UK from all EU destinations. To examine how these Brexit barriers affected imports, we estimate a specification, similar to the baseline specification

of equation 3.3, but for imports:

$$\ln(Imports_{sdit}) = \beta_1 (Post_t \times UK_d \times EU_s \times Barriers_{di}) + \alpha_{sdi} + \alpha_{sit} + \alpha_{dit} + \alpha_{sdt} + \varepsilon_{sdit}$$

where UK_d is 1 for imports of the UK and 0 otherwise, EU_s is 1 for all EU exporting source countries and 0 for non-EU countries, and $Barriers_{di}$ now refer to reservations taken by the UK on the import side. Table 7 shows that there is a negative but much smaller and statistically insignificant effect on UK imports from the Brexit barriers. This partly confirms the Brexit campaign’s point that UK imports would not be severely impacted. But the other claim of no effects on exports is not borne out by the evidence, as shown in the previous section.

Table 7: Imports into the UK

Log Imports _{sdit}	(1)
Post _t × UK _d × EU _s × Barriers _{di}	-0.124 (0.248)
Fixed effects	yes
Observations	7,269,867

Notes: Estimation uses BaTIS data, with log of imports by source country, destination country, service category and year as dependent variable. $Post_t$ is 1 from 2021 onwards and is 0 in earlier years. UK_d is 1 when the UK is the importing destination country and 0 otherwise. EU_s is 1 when the exporting source country is an EU country. $Barriers_{di}$ is constructed from the TCA as explained in the text and is always zero for all source-destinations other than UK imports from the EU. Source-destination-service, source-service-time, destination-service-time and source-destination-time fixed effects are included. Standard errors, clustered by source-destination-service, in parentheses. (a), (b) and (c) indicate significance at 1%, 5% and 10% levels respectively.

Trade and Investment Barriers

The baseline barrier measure contains reservations on cross-border trade and investment liberalisation between the UK and the EU. The question remains, what effect do these two types of reservations have on the decisions and activities of firms. While barriers to cross-border trade affect firms’ ability to export to the trading partner, those on investment make the process of establishing affiliates more restrictive and complex. Exporting and selling through affiliates are substitutable activities for the firm when outward investments are undertaken to jump cross-border barriers to trade (Brainard (1997)). Intra-firm trade and vertical sourcing can make exports and outward investments complementary as well (Antras & Yeaple (2014), Baldwin & Okubo (2014)). Theoretically, trade and investment flows can be positively or negatively correlated through these different sources of complementarity or substitutability in activities.

Importantly, our granular measure of Brexit barriers shows that the design of trade policy can directly impact the complementarity between cross-border trade and investment. If

countries impose local presence requirements on cross-border trade, then trade and investment flows are positively related if exporting firms continue to export from their home location, such as by sending legal information digitally to their foreign office. Alternatively, trade and investment flows would be negatively correlated when exporting firms decide to relocate all of their traded operations to the importing country. There is some evidence showing that UK firms increasingly relied on local affiliate sales to serve the EU market after the Brexit referendum (Breinlich & Magli (2024)).

To understand these relationships, we focus on the standard Hotelling definition, whereby activities are complementary when increases in the costs of doing one activity makes doing the other activity less attractive. In our setting, exports would be complementary to outward investments if an increase in cross-border investment barriers in a destination-service reduces exports to that destination-service. We separate our measure of trade barriers into barriers related to cross-border trade and investment. Table 8 shows that both trade and investment barriers have negative impacts on UK's exports to an EU country. The impact is higher for investment barriers - both because of a larger elasticity and a higher number of reservations being taken for investments. This finding is consistent with a reduction in services exports through UK's reduced attractiveness as an export platform. But not consistent with exports being fully substituted with local presence by design or by choice.

Table 8: Cross-border Trade and Investment Barriers

Log Exports _{sdi}	Barriers		
	All (1)	Trade (2)	Investment (3)
$Post_t \times UK_s \times EU_d \times Barriers_{di}$	-0.918 ^a (0.238)		
$Post_t \times UK_s \times EU_d \times Trade\ Barriers_{di}$		-0.657 ^a (0.211)	
$Post_t \times UK_s \times EU_d \times Investment\ Barriers_{di}$			-0.835 ^a (0.213)
Fixed effects	yes	yes	yes
Observations	8,417,183	8,417,183	8,417,183

Notes: Estimation uses BaTIS data, with log of exports by source country, destination country, service category and year as dependent variable. $Post_t$ is 1 from 2021 onwards and is 0 in earlier years. UK_s is 1 when the UK is the exporting source country and 0 otherwise. EU_d is 1 when the destination country is an EU country. $Barriers_{di}$ is constructed from the TCA as explained in the text. $Trade\ Barriers_{di}$ is the average of the four reservations measures corresponding to provisions on cross-border trade and $Investment\ Barriers_{di}$ is the average of the six reservation measures corresponding to provisions on cross-border investments, constructed from the TCA as explained in the text. Source-destination-service, source-service-time, destination-service-time and source-destination-time fixed effects are included. Standard errors, clustered by source-destination-service, in parentheses. (a), (b) and (c) indicate significance at 1%, 5% and 10% levels respectively.

The Elasticity of Services Trade

Finally, the trade elasticity plays a crucial role in the quantitative gains from openness and international integration. Our baseline results have provided the elasticity of services trade with respect to the rise in non-tariff barriers from the TCA. A key challenge in the literature on non-tariff barriers is to provide trade elasticities that are comparable to tariff elasticities, because the barriers are measured in terms of prevalence ratios and not trade costs. For Brexit, we have a unique setting, where a number of studies provided quantitative estimates of the effects of Brexit on UK-EU trade. This constitutes a pre-specified research design and translating our measure to that context allows us to determine how the ex post service trade elasticity differs from the central goods trade elasticity estimate of -5 that is used in ex ante Brexit studies.

Dhingra et al. (2017) draw on the non-tariff barrier measures provided by Francois et al. (2013) to determine the rise in trade costs after Brexit. The measures are sector-specific reports from firms on the barriers faced in exporting from the United States (that is a third country) to the EU. The trade cost index ranges from 0 to 1, with 0 denoting no barriers to export to the EU and 1 denoting prohibitive trade costs. We multiply the trade cost index with the prevalence ratio to arrive at a trade barrier measure. The estimated trade elasticity from this specification is estimated to be about -3 in Table 9. This turns out to be much smaller in absolute magnitude than the central goods trade elasticity of 5 (Caliendo & Parro (2015)), and suggests welfare losses from trade would have been larger than those in studies that draw on this elasticity estimate from the literature.

Table 9: Trade cost index of Barriers

Log Exports _{sdi}	(1)
Post _t × UK _s × EU _d × Barriers _{di} × Cost _{di}	-3.336 ^a (0.703)
Fixed effects	yes
Observations	8,417,183

Notes: Estimation uses BaTIS data, with log of exports by source country, destination country, service category and year as dependent variable. $Post_t$ is 1 from 2021 onwards and is 0 in earlier years. UK_s is 1 when the UK is the exporting source country and 0 otherwise. EU_d is 1 when the destination country is an EU country. $Barriers_{sdi}$ is constructed from the TCA as explained in the text. $Cost_{di}$ is the cost index for non-tariff measures from firm survey reports of Francois et al. (2013). Source-destination-service, source-destination-time, source-service-time and destination-service-time fixed effects are included. Standard errors, clustered by source-destination-service, in parentheses. (a), (b) and (c) indicate significance at 1%, 5% and 10% levels respectively.

5 Conclusion

This paper has examined whether Brexit delivered on its central economic promise: enabling the UK to enhance its global comparative advantage by reorienting trade away

from the EU. Developing comprehensive and granular measures of barriers introduced through the post-Brexit Trade and Cooperation Agreement, we show that Brexit has, in fact, imposed substantial new frictions on UK services exports to the EU. The UK departed from regulatory alignment with the EU to re-orient its high value-added services exports globally. UK services exports to the EU declined significantly in response to the new barriers, but there were no offsetting gains in non-EU markets. On average, Brexit-induced trade barriers reduced UK services exports by 15.8 percent in affected EU destinations of services that received the barriers, and total UK exports are estimated to have fallen by 4.1 to 5.1 percent, compared to exports from the rest of the world in the same services or other services that did not get any barriers.

These findings show that regulatory autonomy and disentanglement from the EU has not unlocked new global opportunities for the UK. Instead, the results highlight the enduring importance of closer trade partners and deep integration — particularly for services trade, where barriers are more complex and need regulatory trust and cooperation among trading partners. We find that both trade and investment restrictions introduced under the post-Brexit arrangement suppressed export performance, underlining the complementarity of these two channels. The estimated trade elasticity from our findings further shows that services trade losses from Brexit are likely to have been underestimated in ex ante analyses that had to rely on the central elasticity of goods trade to tariffs, in the absence of appropriate services trade elasticities.

This evidence-based evaluation provides critical insights into the broader debate on economic nationalism and the consequences of reversing international integration. As other countries contemplate shifts in trade policy, the UK’s post-Brexit experience provides an assessment of the divergence between the promises that deglobalisation offers and the actual reality of reorienting away from established trading relationships and enduring strengths in global competitiveness.

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A Appendix

A.1 Provisions in the TCA

Chapter 2 of Part Two lays down provisions that prescribe how a Party of the agreement (i.e. UK or individual EU countries) treats the investors and enterprises (established by the investors) of the other Party, namely:

- Most Favoured Nation Treatment: A Party shall treat investors and enterprises of the other Party no less favourably than the investors and enterprises of a third country
- National Treatment: A Party shall treat investors and enterprises of the other Party no less favourably than its own investors and enterprises
- Market Access: A Party will not impose limitations on the enterprise of an investor of the other Party for instance, on the total value of transactions, number of natural persons employed etc
- Performance Requirement: A Party shall not impose any requirement on an enterprise of an investor of the other Party for instance on exports, domestic sales, domestic R&D etc

- Senior Management and Boards of Directors: A Party shall not require an enterprise of an investor of the other Party to appoint individuals of any particular nationality as executives, managers or members of boards of directors

Similarly, Chapter 3 of Part Two lays down provisions that prescribe how a Party of the agreement treats services provided by suppliers of the other Party, namely:

- Most Favoured Nation Treatment: A Party shall treat services and service suppliers of the other Party no less favourably than the services and service suppliers of a third country
- National Treatment: A Party shall treat services and service suppliers of the other Party no less favourably than its own services and service suppliers
- Market Access: A Party will not impose limitations on the services provided by the supplier of the other Party for instance, on the total value of transactions, number of service suppliers etc
- Local Presence: A Party shall not require a service supplier of the other Party to establish an enterprise or be resident of its territory as a condition for the cross-border supply of a service

A.2 Summary Statistics for Barriers

Table 10: Summary statistics

	Mean	S.D.	25%	Median	75%	Min	Max
$Reservation_{dc}$	0.138	0.132	0	0.1	0.2	0	0.7
$Barriers_{di}$	0.188	0.107	0.1	0.2	0.265	0.004	0.7

Notes: Summary statistics for $Reservation_{dc}$ and $Barriers_{di}$ imposed by EU countries on UK exports, defined as in the text. 25% and 75% refer to the values of the 25th and 75th percentiles.

A.3 Barriers in the TCA

Figure A.1 shows another example of reservations imposed on UK providers in Placement Services by EU members. Germany has taken reservations on national treatment in trade and investment, along with a reservation on local presence in trade liberalisation on all placement services. Spain has taken a reservation on market access in investment executive search services and placement services of office support personnel and other workers.

Figure A.1: Example of barriers in placement services imposed by EU countries on UK exports

L 149/1306	EN	Official Journal of the European Union	30.4.2021
(h) Placement Services (CPC 87201, 87202, 87203, 87204, 87205, 87206, 87209)			
With respect to Investment liberalisation – Market access, National treatment and Cross-border trade in services – Market access, National treatment (applies to the regional level of government):			
L 149/1308	EN	Official Journal of the European Union	30.4.2021
<p>In DE: Nationality of a Member State of the European Union or a commercial presence in the European Union is required in order to obtain a licence to operate as a temporary employment agency pursuant to Sec. 3 paragraphs 3 to 5 of this Act on temporary agency work (Arbeitnehmerüberlassungsgesetz). The Federal Ministry of Labour and Social Affairs may issue a regulation concerning the placement and recruitment of non-EEA personnel for specified professions e.g. for health and care related professions. The licence or its extension shall be refused if establishments, parts of establishments or ancillary establishments which are not located in the EEA are intended to execute the temporary employment pursuant to Sec. 3 paragraph 2 of the Act on temporary agency work (Arbeitnehmerüberlassungsgesetz).</p> <p>Measures:</p> <p>DE: Gesetz zur Regelung der Arbeitnehmerüberlassung (AÜG); Sozialgesetzbuch Drittes Buch (SGB III; Social Code, Book Three) - Employment Promotion; Verordnung über die Beschäftigung von Ausländerinnen und Ausländern (BeschV; Ordinance on the Employment of Foreigners).</p> <p>With respect to Investment liberalisation – Market access:</p> <p>In ES: Prior to the start of the activity, placement agencies are required to submit a sworn statement certifying the fulfilment of the requirements stated by the current legislation (CPC 87201, 87202).</p> <p>Measures:</p> <p>ES: Real Decreto-ley 8/2014, de 4 de julio, de aprobación de medidas urgentes para el crecimiento, la competitividad y la eficiencia (tramitado como Ley 18/2014, de 15 de octubre).</p>			

Figure A.2 shows parts of some of the text of the example of reservations imposed on UK providers in Legal Services by Germany, discussed in section 2.

Figure A.2: Example of barriers in legal services imposed by EU countries on UK exports

30.4.2021	EN	Official Journal of the European Union	L 149/1229
Description:			
(a) Legal services (part of CPC 861) ¹			
With respect to Investment liberalisation – Market access – and Regulatory framework for legal services – Obligations			
In EU: Specific non-discriminatory legal form requirements apply in each Member State.			
L 149/1230	EN	Official Journal of the European Union	30.4.2021
(i) Designated legal services supplied under the home professional title (part of CPC 861 – legal advisory, arbitration, conciliation and mediation services with regard to home-jurisdiction and international law governed by Section 7 of Chapter 5 of Title II of Heading One of Part Two of this Agreement).			
With respect to Investment liberalisation – Market access, National treatment and Cross-border trade in services – National treatment, Market access and Regulatory framework for legal services – Obligations:			
L 149/1232	EN	Official Journal of the European Union	30.4.2021
In DE: For foreign lawyers (with other than EEA and Swiss qualification) there may be restrictions for holding shares of a lawyers company which provides legal services in host-jurisdiction law.			
30.4.2021	EN	Official Journal of the European Union	L 149/1235
(ii) Other legal services (host-jurisdiction law including legal advisory, arbitration, conciliation and mediation services and legal representational services).			
With respect to Investment liberalisation – Market access, National treatment and Cross-border trade in services – National treatment, Local presence:			
L 149/1238	EN	Official Journal of the European Union	30.4.2021
In DE: Only lawyers with EEA or Swiss qualification may be admitted to the Bar and are thus entitled to provide legal services.–Commercial presence is required in order to obtain full admission to the Bar. Exemptions may be granted by the competent bar association. For foreign lawyers (with other than EEA and Swiss qualification) there may be restrictions for holding shares of a lawyers company which provides legal services in domestic law.			
30.4.2021	EN	Official Journal of the European Union	L 149/1245
DE: § 59e, § 59f, § 206 Bundesrechtsanwaltsordnung (BRAO; Federal Lawyers Act); Gesetz über die Tätigkeit europäischer Rechtsanwälte in Deutschland (EuRAG); and § 10 Rechtsdienstleistungsgesetz (RDG).			