# **Brexit and Coronavirus: Financial Perspectives and Future Prospects**

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*The European Journal of Finance* (2023). https://doi.org/10.1080/1351847X.2023.2249961

# Abstract

The economic landscape of the UK has been significantly shaped by the intertwined issues of Brexit, COVID, and their interconnected impacts. The disruptions caused by Brexit and the COVID pandemic have created uncertainty and upheaval for both businesses and individuals. Whilst the effects of COVID are now receding, Brexit is still dominating headlines seven years after the referendum and is likely to do so for the foreseeable future. In this introduction to the special issue, we provide an overview of the literature on Brexit. We review the reasons for leaving the European Union, as well examine the consequences of Brexit, with a focus on investment, economic growth, trade, unemployment, and financial markets. We then introduce the seven papers, presented at the "*Post Brexit: Uncertainty, Risk Measurement and Coronavirus Challenges Conference*" held at Birmingham Business School in June 2021, that advance the current literature on the effects of Brexit and COVID on the UK economy. Evidence in these papers suggests that Brexit and COVID are still clearly posing a severe strain on the UK's economy. However, some papers suggest that not everything about Brexit has been detrimental, or at least certain sectors of the UK economy are displaying a marked resilience.

Keywords: Brexit, COVID, uncertainty, contraction, resilience

JEL: G15, N1, O11

### 1. Introduction

On 23 June 2016, a referendum took place in the United Kingdom (UK) and Gibraltar to ask the electorate whether the country should remain a member of, or leave, the European Union (EU). A total of 46,500,001 people were registered to vote in the referendum and 33,577,342 votes were cast, representing a turnout of 72.2%. <sup>1</sup>Except for the Scottish Independence Referendum in September 2014, this was the highest percentage turnout since the 1992 UK Parliamentary general election (UKPGE). A detailed breakdown of the votes cast is provided in Binner et al. (2023), with the upshot being the vote to leave won the referendum by a very narrow margin. Subsequently, the UK withdrew from the EU on the 31<sup>st</sup> of January 2020; an event which is generally referred to as Brexit. Anecdotally, based on the media articles, it would seem however, Brexit has not led to the benefits envisaged prior to the Brexit vote. There is even some evidence to suggest that some leave voters regret their decision to vote for Brexit (Collins et al., 2022).

In the academic sphere, uncertainty is a word commonly used with reference to Brexit. Some examples of uncertainty generated by Brexit include uncertainty around whether there was going to be a hard Brexit or a soft Brexit. A hard Brexit meaning the British government would cease to be a part of the EU and the UK would no longer have access to the single market, which allows free movement of goods, services, and people from the member countries; whilst a soft Brexit was a mid-way between leaving the EU and staying in it. Britain would have been entitled to some of the privileges that other EU members have. Countries like Iceland, Norway, and Liechtenstein are already using this model. As per this model, Britain would officially not be a part of the EU and hence would have no political representation at the EU. Uncertainty also surrounded what the new UK/EU relationship would look like, and exactly what policies the government would come up with to mitigate any adverse effects of Brexit.

The official withdrawal of the UK from the EU in January 2020 coincided with the first reported COVID cases in the UK. Within a couple of months, deaths resulting from COVID reached over a 1000 in the UK and COVID was declared a pandemic by the World Health Organisation. The UK went into its first national lockdown which lasted over three months. Financial markets experienced one of the worst crashes in history. In mid-March 2020, the S&P 500 index fell by 11.98%, FTSE 100 fell by 9.30% and in the first quarter of 2022, Germany's Dax fell by 38% and Japan's Nikkei was down by 29 % (Szczygielski et al., 2022). The pandemic forced governments to implement extremely strict measures,

<sup>&</sup>lt;sup>1</sup> See: <u>https://www.electoralcommission.org.uk/who-we-are-and-what-we-do/elections-and-referendums/past-elections-and-referendums/eu-referendum/report-23-june-2016-referendum-uks-membership-european-union</u>

mainly lockdowns, to prevent the spread of the virus which in turn created an uncertain environment for businesses and consequently for financial markets (see e.g., Caggiano et al. 2020). The uncertainty relating to COVID could not have come at a worse time for the UK, as it exacerbated the uncertainty relating to Brexit just as it was withdrawing from the EU. Paterson et al. (2023) refer to Brexit and COVID as the double jeopardy for the UK economy. Although still present globally, COVID is no longer resulting in the vast number of infections and deaths that occurred during the height of the pandemic. By and large, the restrictions to reduce the spread of the virus introduced by governments around the world have now been lifted and the effect of COVID on economies worldwide is receding. Springford (2022) states that most advanced economies have surpassed their pre-pandemic level of output. In the short-term, however, it may be impossible to disentangle the effects of COVID from those of Brexit for the UK economy. The effects of Brexit are likely to be felt for much longer. Almost certainly, scholars will also continue to debate and conduct research on the effects of Brexit for the foreseeable future.

This introductory paper has two main objectives. First, it will present an overview of the literature on Brexit. It will present a discussion of the reasons for the UK's decision to leave the EU, followed by a discussion on the effects of Brexit on the UK economy. Secondly, it will introduce the seven papers that appear in this special issue that were presented at a conference held virtually at the University of Birmingham, UK, in 2021, entitled "Post Brexit: Uncertainty, Risk Measurement and Coronavirus Challenges" <sup>2</sup>. The articles in this special issue essentially provide academic insights into the effects of Brexit and COVID.

# 2. Brexit literature

### 2.1 Why did the UK leave the EU?

A reason for leaving the EU that appears prominently in the academic discourse as well as the mainstream media is immigration. A key tenet of EU membership is the freedom of movement of citizens between EU countries. Immigration is perceived to have increased sharply in the UK and indeed official figures support that sentiment. Many Brexit voters felt that increased immigration was putting enormous strain on public services such as the National Health Service (NHS) and making the housing affordability issue more acute (Gietel-Basten, 2016). The abolition of fiscal transfers to the EU, such as the message on spending £350 million extra a week on the NHS instead of paying into the EU budget also resonated strongly with leave voters (Gamble, 2018). Sovereignty and the general willingness to take back control from the EU over how the UK should be governed were considered to

<sup>&</sup>lt;sup>2</sup> https://sem-society.org/post-brexit-uncertainty-risk-measurement-and-covid-19-challenges-organized-bybirmingham-business-school-the-birmingham-business-school-conference-will-be-held-in-july-20-22-2021/

lead to improvements in the quality of life in the UK (Willet et al. 2019). This view resonated strongly with those that felt they were being 'left behind'; see Liddle (2022). Many of those who felt 'left behind' were in ordinary, menial occupations, which have experienced falls in both employment levels and average wages (Drinkwater, 2021). Curtice (2019) also points out that the number of UK citizens that identify themselves as European is considerably lower when compared to other EU countries. He also notes that the UK economy has generally fared better than its EU counterparts in recent decades. These reasons may have added more impetus to people voting for Brexit.

# 2.2 Consequences of Brexit

A review of 300 recent media article headlines largely portrays Brexit as a failure, with headlines such as "Export trade badly hit by the effects of Brexit"<sup>3</sup>, "Brexit was a huge act of self-harm"<sup>4</sup>, "Far from reducing net migration, Brexit has actually fuelled it"<sup>5</sup>. So far, only a small number of headlines consider Brexit to be a success with headlines such as "Brexit has already saved us billions"<sup>6</sup>, "Brexit scaremongering must stop as trade is up"<sup>7</sup>. A few articles acknowledge that Brexit has not delivered yet but are confident it will, with headlines such as "Most Leavers still believe Brexit will turn out well"<sup>8</sup>. In what follows, we present an overview of academic research into the impact of Brexit.

<sup>&</sup>lt;sup>3</sup> Rene Wagner. (June 23, 2023). Export trade badly hit by the effects of Brexit. *i-Independent Print Ltd.* <u>https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:68HV-NN61-F072-41DV-00000-00&context=1519360</u>

<sup>&</sup>lt;sup>4</sup> (June 23, 2023, Friday). Brexit was huge act of self-harm; RECORD VIEW. *Daily Record and Sunday Mail*. <u>https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:68HW-2XF1-DYTY-C4HG-00000-00&context=1519360</u>.

<sup>&</sup>lt;sup>5</sup> (June 23, 2023 Friday). Far from reducing net migration, Brexit has actually fuelled it - Will Kemp. *Yorkshire Post.* <u>https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:68HX-3X51-JDPF-B1R9-00000-00&context=1519360.</u>

<sup>&</sup>lt;sup>6</sup> By Peter Lilley. (June 23, 2023 Friday). Brexit has already saved us billions. telegraph.co.uk. <u>https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:68HX-20C1-JBNF-W0WW-00000-00&context=1519360</u>.

<sup>&</sup>lt;sup>7</sup> PRESS ASSOCIATION REPORTERS. (June 30, 2023 Friday). 'Brexit scaremongering must stop as trade is up'. The Western Mail. <u>https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:68KC-1VM1-JCBW-N2F7-00000-00&context=1519360</u>.

<sup>&</sup>lt;sup>8</sup> Oliver Wright. (June 23, 2023 Friday). Most Leavers still believe Brexit will turn out well. The Times (London). https://advance.lexis.com/api/document?collection=news&id=urn:contentItem:68HV-XC91-DYTY-C1H5-00000-00&context=1519360.

### 2.2.1 Impact of Brexit on investment

Brown et al. (2019) suggest that after Brexit, small and medium-sized enterprises would find access to EU funding schemes more difficult. Cumming and Zahra (2016) note that currency and political fluctuations in the aftermath of the Brexit referendum would be a major cause for concern for many multinational companies and many were considering curtailing their activities or even ceasing operations altogether and putting expansion plans on hold. Dhingra et al. (2016a) expect a 22% decline in foreign direct investment (FDI) inflows in the UK. The implications of the findings in Bruno et al. (2021) and Driffield and Karoglou (2019) also suggest an adverse impact of Brexit on FDI inflows in the UK. Frenkel and Stefen (2023) show that the pre-announced volume of greenfield FDI to materialise in the UK decreased after the referendum. Vu and Christian (2023) show that crowdfunding in the UK decreased after the Brexit referendum. Haskel and Martin (2023) estimate that business investment in 2022 was about 10% less than it would have been in the absence of Brexit. However, not all of the discourse on the topic is negative. Cumming and Zahra (2016) argue that after Brexit, the costs of operations of companies would be lower as the tariffs, regulations and barriers imposed by the EU would be streamlined or even removed, thereby making the flow of commerce easier and faster. Although few and far between, similar to mainstream media articles, some academic papers do provide evidence that Brexit has not been as damaging as many believe. Many commentators had suggested that once London loses its passporting rights to EU member states, it would lose many profitable businesses and its standing as a world-leading financial centre would be diminished. However, Kalaitzake (2022), with a focus on the city of London, presents statistical evidence to show that London remains exceptionally robust in FDI, Fintech funding and attracting financial firms. With reference to a 2019 Ernst and Young census report, Kalaitzake (2022) mentions that Fintech investment increased by over a third between 2017 and 2019. In his discussions, Kalaitzake (2022) acknowledges that (i) some financial firms were expanding their operations in EU countries but it was not at the expense of London; (ii) on comparing data between 2017 and 2018, overall FDI in the UK dropped by 13% but within financial services, FDI increased by 44%.

## 2.2.2 Impact of Brexit on economic growth, trade, and employment

Makrychoriti and Spyrou (2023) construct a Brexit uncertainty index and show that prolonged uncertainty around Brexit has a negative effect on the UK economy. At the same time, however, it has a positive effect on the economies of major EU countries such as Germany and France. Springford's (2022) estimates show that the UK GDP is 5.2% smaller than what it would have been without Brexit. Dhingra et al. (2016b) also expect a drop in UK's national income between 6.3% and 9.5% per year. The government's independent watchdog, the Office for Budget Responsibility<sup>9</sup>, thinks the UK will ultimately be 4% worse off than it would have been had we voted "no" to Brexit. Bank of England (2021) suggests that GDP is likely to be around 3.25% lower; the Bank judges that most of the impact on GDP will come through over the next three years. Bhattacharjee et al. (2020) also suggest an adverse impact of Brexit on the UK economy, but some regions will be hit harder due to varying degrees of economic relations with the EU. Fingleton et al. (2022) suggest that, in the long-run, Brexit could make the productivity gap between London and other regions worse.

In terms of trade, Dhingra et al. (2016b) suggest that Brexit would lower trade between the UK and EU because of high tariffs and non-tariff barriers. Liddle (2022) mentions that there is little sign that the reduction in exports to the EU has been replaced by exports to non-EU countries. The estimations in Oberhofer and Pfayyermayr (2021) suggest that UK exports to the EU are likely to decline within the range of 7.2% and 45.7% six years after Brexit has taken place. Moreover, they suggest that the reduction in trade with the EU will only be partially offset by trade with non-EU countries. Buigut and Kapar (2023) investigate the effects of the different phases of Brexit on UK-EU trade. For the period 2016Q3 to 2019Q4, which they refer to as "the Brexit referendum period", they find that UK-EU trade dropped by 10.5%. They refer to the period from 2020Q1 to 2020Q4 as "the transition period" as EU laws were still applicable in this episode. During this phase, their analysis suggests that UK-EU trade dropped by 15%. After the transition period, the UK and EU signed a Trade Cooperation Agreement (TCA). Buigut and Kapar (2023) refer to their post-transition period as "the post-Brexit period", during which they do not find any significant effect on UK-EU trade. According to the Bank of England (2021), and in comparison, to a frictionless arrangement, UK trade is expected to be around 10.5% lower in the long run under the Brexit agreement.

With respect to employment levels, Papyrakis et al. (2023) compare the actual employment levels to a simulated case where the UK does not leave the EU. Their findings suggest that the Brexit referendum did not have any statistically significant impact on the UK labour market. Liddle (2022) also mentions that despite Brexit, London has remained a leading financial centre, with far fewer than expected job losses to Europe; a view also echoed by Kalaitzake (2022). However, Liddle (2022) also mentions that Brexit has caused severe labour shortages in sectors such as agriculture, hospitality and construction, which were previously heavily dependent on EU workers. Griffith et al. (2021) analyse

<sup>&</sup>lt;sup>9</sup> Office for Budget responsibility (2023) Brexit Analysis https://obr.uk/forecasts-in-depth/the-economy-forecast/brexit-analysis/#assumptions

the consequences of post-Brexit trade barriers on wages in the UK. They find that lower-paid workers are more likely to be adversely affected as they are employed in sectors that face higher trade costs and they are less likely to have alternative employment opportunities.

#### 2.2.3 Impact of Brexit on financial markets

Ben Ameur and Louhichi (2022) state that economic disintegration, resulting from Brexit, will also lead to financial disintegration as regulations against free capital movement will affect the financial sector. A statement that they support by referring to the drop in the FTSE250 by 7.2% and the drop in the pound against the dollar by 8% a day after Brexit. Moreover, evidence in some studies suggests that issues arising due to Brexit in the financial sector in the UK will also transmit to other EU members due to the interconnectedness of the financial markets (Ren, 2022, Ben Ameur and Louhichi, 2022). In fact, one day after the Brexit vote, equity markets globally fell by around 5% (Iglesias, 2022). Tielmann and Schiereck (2016) show that after the referendum, the stock prices reactions of exchange-listed logistic companies were negative for both EU and UK companies but the reaction for UK companies were bigger. Ramiah et al. (2017) investigate the impact of the Brexit referendum outcome on the share prices of different sectors in the UK. They find that most of the sectors displayed negative abnormal returns. Schiereck et al. (2016) show that the Brexit vote result announcement led to steep share prices decline globally but EU banks were more severely affected. They also show that credit default swaps (CDS) spreads increased for banks globally but to a much lesser extent than the Lehman brothers' bankruptcy filing announcement, indicating that the Brexit result announcement is unlikely to affect the riskiness of banks globally to the same extent as the Lehman brothers' bankruptcy filing announcement. In a similar vein, Wu et al. (2021) show that the Brexit referendum outcome did not have any significant impact on global Real Estate Investment Trust (REITs) markets. Some studies also show that the adverse reaction in the UK stock market was only temporary. Arshad et al. (2020) show that the volatility in the UK equity market was higher prior to the Brexit vote than during the referendum period and subsequently. Shazad et al. (2019) show a negative and significant market reaction in the UK before the Brexit referendum but post-Brexit referendum, they find that the cumulative market-adjusted returns are positive and significant. Mitra and Pradhan (2022) state that the financial links between the UK and the EU have shown more resilience than many had imagined. They mention that larger EU countries use of UK financial sector has not declined, and that UK export of financial services has increased after the Brexit vote.

### 3. The papers in this issue

In this section, we introduce the seven papers in this special issue.

A key issue that needed to be addressed by the UK in the post-Brexit negotiations with the EU was the controversy around the Irish border. Liddle (2022) provides an overview of the proposals to resolve it and the challenges faced along the way. In the midst of the challenges, there were calls for an Irish Unification (Haverty, 2020). Within this context, Binner et al. (2023), investigate the issue of whether or not Northern Ireland could form a currency union with the Republic of Ireland and the rest of the Eurozone. The evidence, based on weak separability tests, suggests that all areas considered in their analysis meet the microeconomic criteria for a common currency area, although banking data suggest that lending in Northern Ireland is different from lending in the rest of the UK, raising doubt on whether the UK forms a common currency area including Northern Ireland. However, they also point out that Northern Ireland trades with the rest of Great Britain to a far greater extent than with the Republic of Ireland, and therefore leaving the UK would imply having transaction costs through an exchange rate which would be an additional form of uncertainty under the new arrangements.

Indeed, uncertainty arising from Brexit and Covid is a key term used in many of the papers on Brexit and Covid. Very few papers however explicitly model the uncertainty and show its impact on firms and economies. The following three papers in this special issue model the uncertainty and discuss their impact on economies: Ellington et al. (2023), Bissoondeeal et al. (2023) and An et al. (2023). The impact of uncertainty on macroeconomic and financial variables is never clear. This is because individuals and firms react differently to different types of uncertainty. For example, uncertainty can lead to risk avoidance as well as risk-seeking behaviour from investors. Risk-averse investors may switch from high-risk investments such as equities to low-risk investments such as monetary assets (e.g., Bissoondeeal et al., 2010). Others may have a higher appetite for risk (e.g., Ritika and Kishor, 2020). What eventually matters at the macro level is the aggregate effect, which in our example will depend on whether risk avoidance or risk-seeking is more dominant at a particular point in time.

Ellington et al. (2023) investigate the impact of Brexit and Covid through the lens of the economic policy uncertainty (EPU) measure introduced by Baker et al. (2016). EPU for various countries are available from policyuncertainty.com; – a measure also employed by Bissoondeeal et al. (2023) and An et al. (2023). After taking into account the break in volatility generated by the rapid spread of COVID in March 2020 in their Bayesian vector autoregressive model, Ellington et al. (2023) show that shocks to EPU result in a contraction in GDP growth in the UK which lasts for about 12 months. Further,

they prevent evidence that shocks to EPU also lead to an increase in financial stress. Their analysis highlights the importance of taking into account the volatilities generated by events such as Brexit and COVID.

Bissoondeeal et al. (2023) provide further insights into the impact of uncertainty by investigating its impact on models that can potentially be used in guiding monetary policy. In addition to EPU, they also use infectious disease volatility, also available from policyuncertainty.com, and stock market volatility as measures of uncertainty. They conduct their investigation within a money-demand framework. Monetary aggregates lost their prominence in guiding monetary policy in recent decades as money demand functions began to display instabilities in the mid-1980s. Following the seminal work of Barnett (1980), findings in papers such as Binner et al. (2009), Bissoondeeal et al. (2019) and Jones and Stracca (2008) suggest that historical instabilities experienced in money demand functions may be due to incorrect measurement of the money supply, rather than an unstable relationship between monetary aggregates and its determinants. Given the recent weakness experienced in the current monetary policy strategy, there have been calls for monetary aggregates, but appropriately measured aggregates, to be given a more prominent role (Keating et al., 2014, Molinas et al., 2023). Indeed, Bissoondeeal et al. (2023) use the Divisia monetary aggregates which are rooted in microeconomic aggregation theory in their estimations. Their analysis shows that allowing for a measure of uncertainty in money demand functions improves their stability for the cases of the UK and Euro area, especially around the episodes of Brexit and COVID. Further, their Markov-Switching vector autoregression model suggests that uncertainty has a greater impact on money demand when the uncertainty level is high. Their analysis highlights the importance of measuring monetary aggregates appropriately and accentuates the need to identify the causes of instability in money demand specifications so that the latter can be reliably used for guiding monetary policy.

The preceding paragraph alluded to the importance of employing the correct formulation of monetary aggregates in econometric models. Ellington et al. (2023) and Bissoondeeal et al. (2023) in this issue both use the Divisia monetary aggregate which is a more sophisticated construct compared to the traditional Simple Sum monetary counterpart generally employed by central banks. Although there is a growing interest in the use of Divisia aggregates, the studies that employ them are sparse in comparison to those that use the official Simple Sum aggregates. One of the reasons given to explain this is that the construction of the Divisia aggregate is not as straightforward as that of the Simple Sum aggregate. Furthermore, Diewert (1978) advocates the use of a user cost to the Divisia monetary aggregate instead of interest rates traditionally employed in money demand functions. The construction of the user cost is equally complicated. A key issue in the construction of Divisia aggregates and their corresponding user costs is how to measure the benchmark rate of return. This

is one of the key themes addressed by Fleissig et al. (2023) in this issue, whilst also providing an overview of the construction of the Divisia aggregate and its corresponding user cost. Their study presents several interesting findings. First, their analysis on elasticities of substitution reinforces the notion that Simple Sum monetary aggregates incorrectly capture the information content of monetary aggregates and that Divisia aggregates are more appropriate. Second, their estimations suggest that Divisia money still has an important role to play in monetary policymaking, echoing findings of Bissoondeeal et al. (2023) in this issue and recent studies such as Belongia and Ireland (2022), Keating et al (2014), Florackis et al. (2014) and Molinas et al (2023).

An et al. (2023) investigate the uncertainty caused by Brexit and COVID on FDI and trade in the UK and five major EU economies. Using time-varying impulse response functions, they show that EPU affects FDI and trade in different economies differently around the Brexit episode. For example, in France and Germany, the effect of EPU on FDI around the Brexit period is largely negative. In contrast, Italy largely displays a positive effect of EPU on FDI around that time. In the case of the UK, both FDI and trade appear resilient to uncertainty around the Brexit period. After the onset of COVID, for most countries in the study, EPU has a negative impact on FDI and trade. Barnett et al. (2023) examine the dependence among European stock markets using copulas within the context of large shocks to the economies, such as the financial crisis and COVID. Although they find evidence of tail dependence, their results suggest that the dependencies are generally stable. They do not find any obvious spikes around major events such as the financial crisis, Brexit and COVID.

Prior research has examined the extent to which businesses that have a close relationship with banks affect loan conditions (e.g., Boot and Thakoor, 2002). Zhao et al. (2023) investigate whether or not the COVID pandemic has impacted on the outcome of closer banking relationships between businesses and lenders. Focussing on small and medium-sized enterprises (SMEs), they show that a closer relationship with a given bank helps with the acquisition of bank credit before the COVID period. However, after the onset of COVID, banks treated SMEs that had a closer relationship with them in the same way as those that did not. They claim that such an outcome could have been influenced by the government support programmes, in particular, the availability of government-backed credit. These government support programmes may have incentivised banks to treat 'friends' and 'strangers' alike.

### 4. Concluding remarks

Leaving the EU was undoubtedly one of the biggest recent political and economic events for the UK. Votes for Leave and Remain were not evenly distributed across the UK; Remain won the highest share of the vote in Scotland and Northern Ireland, whilst, within England, London was the only region where

Remain won a majority. The Leave vote won by a very narrow 3.8 percentage point margin. Unsurprisingly, seven years after the referendum and almost four years from the official withdrawal, Brexit is still dominating the headlines. Most of the headlines on Brexit seem to suggest that Brexit has been a failure so far. Evidence suggests that most Remain voters are convinced that many of the recent woes in the British economy are a direct consequence of Brexit. However, many Leave voters are convinced Brexit will work out well in the longer term, whilst others are expressing regret at their decision to vote for Brexit. Any adverse effect of Brexit has certainly also been exacerbated by the COVID pandemic.

Immediately after the vote to leave the EU, a plethora of academic papers on the effects of Brexit emerged. Reflecting the sentiment of newspaper articles, academic research is still divided between papers which claim Brexit is likely to prove costly to the UK and those which suggest Brexit has not been completely detrimental to the UK. Kalaitzake (2022), for example, mentions FDI in financial services increased after the Brexit vote, while Mitra and Pradhan (2022) mention that UK export of financial services has increased after the Brexit vote. In this introductory paper to the special issue, we provide an overview of the recent literature on Brexit. We look into the main reasons for leaving the EU and, with a focus on the UK, delve into the impact of Brexit on investment, economic growth, trade, unemployment and financial markets. We then introduce the papers in this special issue that add to the knowledge and understanding of the current literature. As many papers have acknowledged, it is difficult to separate the effects of COVID and Brexit after 2020. So essentially, the papers with data beyond 2020 analyse the effects of both COVID and Brexit.

The findings from the articles in this issue reflect the sentiments from newspaper articles and the existing literature to some extent. Binner et al. (2023) offer hope that Northern Ireland's place in the UK remains protected by the new Windsor Framework, agreed in February 2023. The framework is intended to ease post-Brexit trade between Northern Ireland and the rest of the UK. It modifies the Northern Ireland Protocol, the 2019 agreement which kept Northern Ireland inside the EU's single market for goods. Studies such as Ellington et al. (2023) and Bissoondeeal et al. (2023) provide evidence on how the uncertainty surrounding Brexit and COVID have adversely impacted on the economy as well as econometric models that are likely to influence monetary policy decision-making. On the other hand, the analyses in Barnett et al. (2023) and An et al. (2023) paint a less damaging picture of Brexit and COVID. While there is no doubt there have been some short-term adverse effects of Brexit and COVID, whether be it due to, for example, trade barriers or uncertainty, the medium to longer term impact remains less certain. As evidenced by the papers of Ellington et al. (2023) and Bissoondeeal et al. (2023), uncertainty can have damaging effects on an economy. However, uncertainties do not last forever, at least not to the same extent as those created by Brexit and COVID.

Governments and policymakers have an important role to play in mitigating those uncertainties, through trade deals or in terms of providing more clarity about a future relationship with the EU. The analysis in Zhao et al. (2023) suggests a potentially tricky situation in the aftermath of Brexit and COVID was averted as a result of government support programmes.

Early 2023 saw an increase in financial stress conditions both in the UK and globally. In particular, the collapse of Silicon Valley Bank followed by Flagstar Bank stepping in to buy most of the operations of Signature Bank and UBS stepping in to rescue rival Credit Suisse brought back memories of the 2008-2009 financial crisis. The UK financial stress indicator compiled by the European Central Bank witnessed, for instance, a big spike in early 2023. This matters for the prospects of the UK economy because, as Ellington et al. (2023), in this special issue find, shocks to UK financial stress indicators suppress UK GDP growth for up to 20 months. Developments in financial stress conditions should therefore be taken into account by the Bank of England when assessing the outlook for UK growth and inflation and deciding whether to tighten monetary policy or not.

Beyond Brexit and COVID, the focus of this special issue, Russia's invasion of Ukraine has also impacted negatively on the UK economy. The prospects of stronger UK growth as well as low and stable inflation depend on a number of political and economic factors including how Britain's trade relationship with the EU will evolve over time. Among other economic factors, we note developments in supply-side pressures. The global supply chain pressure index compiled by the Federal Reserve Bank of New York<sup>10</sup> reached its peak in December 2021 and has been trending downwards since then. Recent work by Hall et al. (2023) shows that global supply pressures of this type can affect UK prices for as many as 42 months. No doubt, then, UK inflation remained stubbornly high at the time of writing in mid-2023, although is expected to fall quickly, particularly as global price pressures are expected to wane. The Bank of England (2023) expects inflation to be around 5% by the end 2023 following the recent interest rate rises.

In closing, we comment on the more immediate prospects of the UK economy. At the time of writing, according to the latest CBI Economic Forecasts, the economy looks to have fared better than expected in the first half of 2023 and is set to steer clear of a recession. The CBI is forecasting 0.4% growth in GDP over 2023, picking up to 1.8% in 2024, upgraded from -0.4% and 1.6% respectively. Tailwinds to growth have strengthened since forecasts in December 2022: the global outlook has improved and wholesale energy prices have fallen. In light of a more positive outlook for GDP growth, business investment is expected to return to its pre-COVID level by the end of 2024.

<sup>&</sup>lt;sup>10</sup> https://www.newyorkfed.org/research/policy/gscpi#/interactive

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