



Anaïs Guérineau

The impact of Brexit on Companies' Supply Chains

What are the long-term effects of Brexit on the operation and structure of companies' supply chains?

Metropolia Business School

Bachelor thesis

Spring 2025

Abstract

Author(s): Anaïs Guérineau
Title: The Impact of Brexit on Companies' Supply Chains
Number of Pages: 34 pages + 0 appendices
Date: 14 April 2025

Degree: Bachelor of Business Administration
Degree Programme: European Business Administration
Instructor(s): Michael Keaney, Senior Lecturer

This thesis analyzes the long-term effects of Brexit on the operation and structure of companies' supply chains. The primary purpose is to describe how Brexit has impacted companies' organizations in terms of being resilient, preparing investments, and finding new strategies depending on the company's sector of activity. Thanks to a literature review following chronological events, the study contrasts the expectations and preparation of companies and the final repercussions after the end of negotiations.

It appears that Brexit created logistical challenges for companies, particularly for those that had a Just in Time strategy. Therefore, organizations developed new strategies to face the problem by diversifying their suppliers or choosing to relocate but the study highlights that depending on the companies' size or sector of activity the impact of Brexit had not been the same. Multinational companies had more options to adjust or move their operations, while small and medium-sized enterprises faced greater challenges due to rising costs and complicated procedures. This thesis also reflects that companies had to face two crises during this time, the pandemic (COVID-19) situation created disruption and it limited firms' ability to prepare themselves.

The thesis concludes that Brexit's impact is ongoing and it appears that supply chains need to be adapted by changing strategies, and depending on the sector of activity the challenge varied, also UK companies may have been more impacted. It is essential not to forget that during their preparation, companies were already confronted with COVID-19 disruption. In the years ahead, more in-depth analysis will be essential to gain a complete understanding of the structural changes brought about by this geopolitical change.

Keywords: Brexit, supply chains, European Union, disruption

The originality of this thesis has been checked using Turnitin Originality Check service.

Contents

Glossary

1	Introduction	1
2	Literature review	4
2.1	Anticipating and managing risk before Brexit	4
2.1.1	Risk identification before Brexit	5
2.1.2	Company reactions and anticipated strategies	8
2.1.3	Uncertainty depending on companies' activity sectors	10
2.2	The real impact of Brexit on companies SC	13
2.2.1	The upheaval following the end of negotiations	13
2.2.2	The repercussion	16
2.2.3	Companies have not only faced Brexit but also Covid-19	20
3	Research methodology	23
3.1	Research methods	23
3.2	Limitations	24
4	Conclusion	25
	References	27

Glossary

EU European Union

FTA Free Trade Agreement

GB Great Britain

MNE Multinational enterprise

SC Supply Chain

SME Small and Medium-sized Enterprise

TCA Trade and Cooperation Agreement

UK United Kingdom

1 Introduction

In 1973, the UK entered what was then called the European Economic Community (EEC). Until then a combination of hesitation by UK leaders and a reluctance especially of French President Charles de Gaulle to accept its applications to join meant that the country was not among the original members that signed the Treaty of Rome in 1957, during the economic recovery process after the Second World War. De Gaulle personally vetoed Britain's applications to join in 1961 and 1967 (Rudnick 1972). However, over time the country's economy was becoming more integrated with those of Western European countries, so the UK decided to apply to be part of the EEC. To resume, the reason of UK to be part of what has since become the EU were more economic than political and social. Kevin O'Rourke, in "A Short History of Brexit: From Brentry to Backstop", explains that in 1975 the country already voted in a referendum about staying or not in the organization, and during that time the answer "Yes" won with a result of 67,2% (O'Rourke 2019).

During all its history in the EU, important elements of the country's leadership and economic life have been suspicious of this union and much of the time during its membership chose to opt out of some agreements. This reluctance to commit fully was why Prime Minister Harold Wilson organized a referendum only two years after Britain gained entry. Yet, despite the large majority in favour of membership, this was not enough to settle the matter of how committed to "Europe" the UK would be:

"As early as 1979, the Callaghan government refused to take part in the European Monetary System proposed by Helmut Schmidt and Valéry Giscard d'Estaing, using arguments that are still heard today in the UK in relation to the euro: the desire to preserve national sovereignty in monetary matters and to retain the flexibility provided by a national monetary policy (in concrete terms, the possibility of devaluation). The United Kingdom has therefore excluded itself from the enterprise that was the first step towards monetary union." (Schnapper, 2012).

For a long time, depending on which party was in power, this union was not always seen as a good thing (for example with the Conservative Party). Pauline Schnapper in 2012 was already talking about a possible referendum which would lead to the UK to remove itself from the European Union. This had been promised first by Prime Minister Tony Blair in 2005 during the general election campaign (although it was subsequently ignored). As Prime Minister from 2010, David Cameron believed that a referendum on EU membership could be used to defeat his critics within the Conservative Party, as they had become more powerful ever since Margaret Thatcher was forced to resign as Prime Minister in 1990. Meanwhile, the Labour Party, having originally been strongly against membership of “Europe” (although its leaders were in favour), had evolved into a majority pro-EU membership organization, with only a small minority of sceptics remaining in Parliament by 2016.

The word “Brexit” appeared between 2012 and 2016. It refers to the “British Exit” of the European Union. In June 2016, David Cameron asked the population whether it wished to “remain” (as opposed to “stay”) in the EU. As mentioned by O’Rourke, this decision was probably due to internal political pressure along with a rise in Eurosceptic parties like the UK Independence Party, which threatened to take voters away mainly from the Conservative Party. Ultimately, 51,9% of voters chose to leave the European Union, and Cameron resigned the following day. In 2017, the British government officially sent a request to remove itself from the EU, following which the country had two years to negotiate its exit with the 27 other Member States. However, several years passed before the Brexit was clearly implemented, due to complicated negotiations and the lack of a parliamentary majority capable of accepting whatever version of Brexit proposed by the government, until the general election of December 2019. In fact, to agree on a deal with the EU members, the UK had to first agree on what it wanted and expected from the Brexit, which was not at all easy because not even the governing party had a unified, coherent vision of the country’s future relationship with the EU. Brexit was postponed 3 times because draft agreements were always rejected by

Parliament, until Boris Johnson's 2019 election victory, achieved on the campaign slogan "Get Brexit Done".

During these years both companies and countries tried to prepare themselves as best as they could because nobody knew exactly which conditions would be applied to this departure. According to the BBC, "It was a complex, sometimes bitter negotiation, but they finally agreed a deal on 24 December" (BBC News, 2020). Thereafter it was only on 1 January 2021 that Brexit finally became reality, despite having officially taken place already on 31 January 2020.

After the negotiation, new trade rules were decided, with an agreement (first provisionally on 1 January 2021, and definitively on 1 May 2021), which

"maintains the absence of customs duties and quotas between the two partners. Although customs declarations are now compulsory, along with sanitary and phytosanitary checks in certain cases. The agreement provides a framework for competition between the UK and the EU by requiring compliance with high standards in a number of areas (environment, climate, state aid, etc.), with retaliatory measures possible in the event of divergence. It also lays down rules for cooperation in sectors such as energy, transport and fisheries. The UK has also withdrawn from the Erasmus+ program." (Touteurope.eu, 2025).

However, of particular significance with this decision is that not only companies were impacted, but people were impacted as well. European Union passport holders had, for example, to deal with new travelling conditions. Because Brexit impacted supply chain costs it has sometimes also impacted prices for consumers, including those of food. So, this subject is relevant to everyone; it shows how just one decision affecting a country's legal status can impact all European Union member states.

In addition, this topic is both highly important and intriguing for a thesis due to its relevance in today's increasingly interconnected, yet also fragmenting and volatile global economy. Because of globalization and the rise of outsourcing,

companies' supply chains tend to be impacted by worldwide disputes and conflicts.

The purpose of this thesis is to understand what are Brexit's long-term effects on the operation and structure of companies' supply chains. To answer this question, we will try to highlight the differences between the predictions made by companies during the negotiation and the real impact of Brexit after it had been fully implemented in 2021. The goal is to see how companies have been able to adapt their supply chains and to determine if there was a different impact depending on the sector of activity. Quotes from French authors in this study come from my exact translation of their texts, unless otherwise in English.

2 Literature review

With the aid of a literature review we are going to go through the significant events of the Brexit period, from the beginning of negotiation to the current situation as of spring 2025, to understand how companies had tried to prepare themselves for Brexit and what has really been the impact of Brexit on their supply chains. The first part will rely on perspectives published prior to the final departure of the UK from the EU. We need to consider that during this time negotiations were still in process and companies were preparing themselves by using mostly estimation and guesswork, given the lack of clear direction regarding what sort of Brexit deal would eventually be negotiated. For the second part we have used literature written only after 2021, when the Brexit was completely implemented. The goal with this literature review strategy is to emphasize how companies could have managed their supply chain risk under these challenging circumstances, and to identify what was unavoidable.

2.1 Anticipating and managing risk before Brexit

During the negotiations, companies tried to prevent the risk of new regulations and tariffs. We are going to analyse how the risks were identified and the different strategies companies tried to adopt.

2.1.1 Risk identification before Brexit

Brexit negotiations were postponed several times because of what is effectively the constitutional process that had to be followed:

“The British Parliament must accept the terms negotiated between the European Council and Theresa May [then British Prime Minister]. Unfortunately, many members of the UK government are convinced Eurosceptics and reject a Brexit that is too ‘soft’. Believing that the terms negotiated by the Prime Minister do not allow enough detachment between the United Kingdom and the European Union, they are blockading and rejecting all the proposals put forward so far, not wanting to maintain any relations other than trade with the continent” (Quinet, 2019).

We understand that it was even harder for companies to prepare themselves for Brexit when even the government, as distinct from the governing party, was not able to find a common agreement.

Due to this situation, two different types of Brexit were envisaged and expected. These are best regarded as “ideal types”—defined by Max Weber as “not a *description* of reality but it aims to give unambiguous means of expression to such a description” (quoted in Kolko 1961: 243). The first one was the outcome of a “Hard Brexit”; it refers to “the scenario in which no agreement is reached between the United Kingdom and the European Union.” (Quinet, 2019). If no agreement would be reached, Great Britain would not be linked to European Union by any trade treaties. Instead, the customs barriers outlined by the World Trade Organization (WTO) would be reinstated without delay. In this case, the UK would be seen similarly to any non-EU country (Quinet, 2019). This situation would be the worst one because it would become significantly more difficult to trade in comparison with before. In addition, “It would also make imports more expensive because of new customs duties. These additional costs would be passed on to consumers and would therefore have an impact on the price of

imported goods” (Quinet, 2019). To continue, “A hard Brexit could include a shift to standard WTO tariffs (2% to 13%) on all exports and imports and also result in a 10% increase in the cost of UK labor and a 20% depreciation in the British pound” (Bain & Company, 2017). Leaving the EU with a Hard Brexit we conclude would have been a very difficult situation for companies, as they would have had to change their transactions strategies completely and probably, as a direct consequence, have to pay more to export/import with the EU, rather than inside it.

The second possibility was a “Soft” Brexit. This refers to an agreement that would maintain some of the benefits of the single market and limit trade disruption. The agreement that would probably be made in favour of this outcome will possibly be one that will look like the Norwegian case. Norway is a member of the European Free Trade Association (EFTA), whose goal is to promote free trade among its members. Unlike the European Union, EFTA does not operate as a customs union, allowing its member countries to independently negotiate customs duties with non-member countries. Additionally, Norway is a participant in the European Economic Area (EEA) (Quinet, 2019).

The possibility of such a deal would lead to an easier situation:

“The critical difference between a deal and no deal is tariffs (taxes on imports). Without a deal, EU importers would pay the EU most-favoured nation (MFN) tariffs on any good imported from GB to the EU, and GB importers the UK Global Tariff on goods moving the other way. Essentially, businesses in the UK and EU would face the standard tariffs payable on imports from any other country with which their country does not have an FTA” (Marshall et al., 2020).

If the negotiation ended with an agreement, it would be easier for companies to continue exchange with Britain, as in this scenario their supply chains would be less impacted.

Indeed, Brexit would probably have an impact on logistics, as new regulations and situations would probably appear. The goal of logistics is to be efficient and able to bring the production to the customers, but with maybe new regulations and laws, transactions would not be realized the same way.

In addition, in the view of some literature British supply chains are more vulnerable. According to Flach et al. (2020), “In 2019, 50% of the UK’s imports and 47% of the exports were traded with the EU27.” The economy of Britain is therefore largely based on its trade with the member countries of the European Union. Exiting the European Union with solid agreements therefore seemed essential for the country, which would risk suffering if it had to face substantial customs duties. We therefore understand that a possible ‘Hard Brexit’ was worrying some companies, which would risk losing their trade agreements/customers with EU member countries. Nevertheless, the point is not only about exports but also about imports. In fact, British companies need also to keep their EU member-based suppliers. “For the UK, 64% of the goods that are dependent on 5 or fewer suppliers come from countries within the EU” (Flach et al., 2020). So, there were envisaged possible shortages/difficulties in finding products, as factories and businesses would be unable to manufacture them because they would not have all the materials and intermediate goods that they needed. Indeed, EU members did not face the same situation in case of no Brexit deal, as they were less dependent on the UK, and companies located within the EU will probably be able to find relatively easy solutions to replace some of their products they had hitherto imported from the UK.

Moreover, border control would probably take more time after the onset of Brexit, not only because more documentation would be needed but also because the government may not have the time to train new employees on the new facilities and methods they will need to administer and control. Having reduced border controls to facilitate easier trade and movement of people within the EU over decades, there would be a sudden demand for staff to implement the arrangements agreed between Britain and the EU. Companies were afraid

of late delivery, which would impact not only their supply chains but also their customers' satisfaction.

2.1.2 Company reactions and anticipated strategies

During the negotiation period companies tried to do their best to be prepared. But with no real information and then the sudden Covid-19 pandemic, most of them faced difficulties due to the combination of uncertainty regarding the Brexit deal and the unavoidable pandemic-related disruption. "Many firms lost several months of Brexit preparations earlier this year, as staff were diverted to the coronavirus response or furloughed" (Institute for Government, 2020). As the British government decided to keep the beginning of January 2021 as the Brexit official starting point, COVID-19 had reduced a lot of time for companies to prepare themselves for Brexit.

To face this situation, according to the literature we understand that companies had to develop new strategies. Supply chains were rethought to prevent the risk of troubles due specifically to Brexit:

"The implications for supply chains based on these short insights is that they will respond to costs and risk by re-configuration. This is an opportunity as well as a threat and the impact will be firm-specific. It appears boards in the two sectors analyzed [food and automotive sectors] should be undertaking detailed supply chain mapping and risk mitigation – sooner rather than later" (Kotios and Braithwaite, 2017).

Companies had to analyze and find a new structure for their business by mapping their supply chains and identifying sources of risk. We are going to emphasize some of those strategies that have been highlighted by Quinet (2019). The first one is the security or risk management strategy which leads a company "to put in place security measures in its supply chain and to keep up to date with the various government legislations, it will be implemented in all companies trading with the UK." (Quinet, 2019). In addition, the avoidance strategy was also really used during this time; it refers to "remove a risk from its

supply chain by canceling the investment initially planned but whose profitability has become too uncertain" (Quinet, 2019); companies might prefer to stop a product than to take the risk of losing too much money because of negotiation uncertainty. Then, we can talk about other options like the speculation strategy, which "consists of anticipating demand by building up stocks of finished products, raw materials, etc. with a PPO downstream in the chain (Push vision)" (Quinet, 2019), the goal is to achieve price efficiency along the supply chain. A contrary perspective there is also the postponement vision which uses the pull concept by "delaying the commitment of resources as much as possible in order to avoid unnecessary surplus costs (Pull vision) with a PPO much further upstream". (Quinet, 2019). As a security measure, some companies chose the hedging strategy that

"involves multiplying supply routes, is a security measure used by companies to avoid dependence on a single supplier. It can be very useful in a situation like Brexit, but it involves investment and trust in multiple suppliers, as well as standardization of tasks to maintain supply chain consistency." (Quinet, 2019).

In its document "Is your supply chain ready for Brexit?", Bain & Company (2017) showed to companies that they needed to anticipate the situation by creating for example different scenarios featuring different new regulations, and creating how to identify some "signposts" to be able to change their strategy whenever required, which, under such uncertainty, could be frequently. It also proposed some strategic decisions that they can use like the "no-regret move", which would consist of reducing costs and improving operational efficacy. In addition, it highlighted the "options and hedge" strategy, which is about "Leadership teams that develop strategic options and hedges for a variety of future scenarios navigate better when new developments unfold" (Bain & Company, 2017). The last strategic option the report gives is the "big bets" which refers to "the most challenging balancing act involves large-scale investments that have different payoffs depending how future uncertainties play out". To end, this report concludes on the fact that the key for companies is to be able to manage

uncertainty by being able to react fast. "By incorporating change into the strategic process, companies can pivot and correct course quickly as Brexit unfolds" (Bain & Company, 2017)

Nevertheless, with the new regulations and because it would take time before every new law will be cleared, it was already anticipated that some companies may act illegally without knowing they are in breach of the law. "Given how poorly prepared many businesses are, there is a risk that some may inadvertently find themselves acting illegally come January – by failing to fill out the right customs paperwork or not complying with new regulations" (Institute for Government, 2020). As a result, the governments and regulators would need to find solutions to clarify these laws and maybe should prioritize keeping a company active instead of punishing it too harshly.

Due to this anticipation, it appears that "Brexit uncertainty led to a 9.2% annual reduction in UK services exports, equivalent to a cumulative loss of USD 146.8 billion between 2016 and 2019." (Du et al., 2025). Even before the end of the negotiation period and Brexit was officially pronounced some repercussions already appeared.

2.1.3 Uncertainty depending on companies' activity sectors

Now that we know the different types of strategies companies could decide to take and which Brexit might have foreseeably involved, we need to understand that depending on the sector of activity, risks are not the same.

"The effects of Brexit are therefore not predictable based on economic theory, but it appears they will be sector and context specific and may be quite dramatic in their impact when the combination of exchange rates, tariffs and non-tariff barriers are factored in for a specific firm." (Kotios and Braithwaite, 2017).

In fact, depending on the industry regulations, the impacts would not be the same, so we will take some examples of sectors mainly impacted.

First, the automotive industry was always going to be impacted because it is a highly interconnected sector, making customs and regulatory barriers almost certain to impact it (Quinet 2019). The automotive industry faced 9% tariffs on vehicles, disrupting integrated supply chains (Kotios and Braithwaite, 2017). Automotive companies were more likely to use more the postponement strategy (we already explained it above, in section 2.1.2), because they have most often a reactive supply chain. We can take the example of car manufacturers' strategies: according to Bain & Company (2017), Nissan continued to invest in the UK, hoping for a free trade agreement at the end of the negotiation. Meanwhile, Toyota waited for more information before making any decisions.

Nissan, for example, canceled its plan to invest in the UK. In fact, the company originally had a project, which was to build one of their new car models in Sunderland in north east England. In return, the British government had promised to offer them some money for their investment in the country during the Brexit negotiation process. Nevertheless, Nissan finally decided to cancel its plan because according to the company, there was too much uncertainty around Brexit so the project would instead take place in Japan. This has happened against a backdrop of a further setback to the end of negotiations (29th March 2019), due to the protracted failure to reach an agreement between the UK and the EU. This example shows that uncertainty effectively forced some companies to remove their activities from the UK. In addition, these situations were the cause of some chaos inside the British government. In a contemporaneous article from the Guardian, it seems clear that not every minister was informed of the situation and of the proposition of money in exchange for some investments by companies in the country. "Nicky Morgan, who chairs the Treasury select committee, complained that MPs [Members of Parliament] had not been informed about the deal with Nissan before Monday" (Sabbagh and Jolly, 2019). This chaos did not help the country to face Brexit such that companies could assume Britain was a safe place to start and continue business.

The seafood sector needed to change its strategy as well (Love et al. 2018). In fact, the seafood industry had been a big debate during these negotiations, not only about fish but also about UK waters and quotas which needed to be defined. "The debate over Brexit and the fisheries question has focused very largely on the expected benefits for the UK's fishing industry to the virtual exclusion of potential implications for the seafood supply chain ... One of the strongest links in the seafood supply chain – the processing industry – could prove to be the most vulnerable" (Love et al. 2018). The processing sector of seafood faced multiple risks: possible higher costs depending on the tariffs on imported goods, meaning they would lose a part of their processing workers who were from the EU and would probably have to change their business location depending on companies' possible decision to move their operations to EU to avoid trade barriers. In conclusion, "Today the EU figures significantly in the UK's seafood supply chain, accounting for around 66% of all UK fish exports" (Love et al. 2018). As we have seen before, the UK risked being impacted more than the EU for its exports. Most of its exports were going to the EU due to a combination of proximity and membership of the Single Market, so any disruptions in trade arrangements were likely to hurt the UK a lot. Linked to this issue, small businesses would be more impacted because unlike big companies they might not be able to absorb extra costs or find easily viable alternatives.

"For those small-scale enterprises situated on England's south coast wishing to exploit their locational advantage in terms of access to the near continent, the greater risks would appear to come from non-tariff impediments in the form of added documentation and border checks that could cause delays and disrupt delivery schedules for fresh fish to clients in Europe" (Love et al. 2018).

Finally, we need to include the Ireland situation. In fact, a major goal was to protect Northern Ireland from some Brexit regulations to protect the all-island economy, although within Britain there were and are forces opposed to this. In order to be able to achieve this challenge EU and the UK had agreed on a

Northern Ireland Protocol, but even though this protocol had been agreed in 2019, in 2020, it was hard to be sure it would be 100% effective after the negotiation period.

“The Northern Ireland protocol, agreed in October 2019 as part of the Withdrawal Agreement, requires EU law on customs and single market regulation on goods to be applied in Northern Ireland. Businesses trading across the Irish Sea will need to demonstrate that they comply with these measures. This means that new customs and regulatory paperwork, checks and processes will be required on goods entering Northern Ireland from Great Britain from 1 January 2021. The UK government is legally obliged to ensure that these new systems and infrastructure are in place to support the arrangements. Businesses need to be ready to use them. But in reality, preparations are off track” (Institute for Government, 2020).

Companies were afraid that the infrastructure to complete the new process would not be ready in time, so they could face delays. Delays would be particularly bad for companies' supply chains, especially for those accustomed to just-in-time delivery. This was confirmed by the disruption related to the coronavirus pandemic, which led to significant delays and costs across supply chains that were revealed to be lacking in resilience, due to the focus on efficiency (Dempsey 2021).

2.2 The real impact of Brexit on companies SC

2.2.1 The upheaval following the end of negotiations

« The Trade and Cooperation Agreement was signed on 30 December 2020, was applied provisionally as of 1 January 2021 and entered into force on 1 May 2021. » (European Commission, 2020).

To end the Brexit negotiation the TCA was written and signed by both parties. This agreement explains the new regulations and laws that cover the exchange

between UK and EU countries members. First about the Free Trade Agreement,

"The agreement covers not only trade in goods and services, but also a wide range of other areas of interest to the EU, such as investment, competition, state aid, fiscal transparency, air and road transport, energy and sustainability, fisheries, data protection and social security coordination." (European Commission, 2020).

The TCA specifies new regulations that companies have to follow as a result of the relatively "hard" Brexit: "Overnight we have gone from frictionless trade to full export documentation. This is a fundamental change in the system" (Bailey et al., 2022, p. 477) ". In the declaration to trade with the EU, which was not the case before, this administrative work adds complexity to their organizations and supply chains.

"On transport, the agreement provides for continued and sustainable air, road, rail and maritime connectivity, though market access falls below what the Single Market offers. It includes provisions to ensure that competition between EU and UK operators takes place on a level playing field, so that passenger rights, workers' rights and transport safety are not undermined" (European Commission, 2020).

The goal by the end of the negotiation was for the UK to leave the EU without losing all its ability to trade with EU member states. It seems obvious that the country could not have the same access to free trade due to the insistence by the British on a "harder" Brexit, but by agreeing on some simple policy and regulations, the EU and the UK tried to keep a good relationship so that their economies would not be as fully impacted by the formal separation.

"Endemic to the vast majority of subsidiaries and sectors has been the need to risk manage the uncertainty arising from the Brexit vote, and the problematic negotiation of an eventual withdrawal agreement, at the same

time as ensuring continuing subsidiary competitiveness and performance" (Fuller, 2022, p.1965).

Brexit shows that it is hard to deal with uncertainties in supply chain arrangements. Companies needed to stay competitive despite the fact that they were not sure of what would happen the day after the end of negotiations. The goal was to get as resilient a supply chain as possible by being able to adapt quickly to new challenges. This challenge was compounded by the pandemic beginning in March 2020, and all the disruptions associated with that.

We have seen previously that companies tried their best to prepare themselves to face the new regulatory environment. Now we are going to analyze the real changes that have taken place and their real impact on companies' supply chains.

"Under the TCA, trade between the UK and the EU is duty and quota free, but the UK is no longer a member of the EU's single market or customs union. However, the implementation of the TCA has resulted in increased trade costs due to the re-establishment of a customs and regulatory border between the UK and the EU" (Badaoui, 2024).

We first understand that despite this agreement companies now faced previously hidden costs so they had to change their policy to try to reduce them.

In addition, as customs controls were imposed, general costs and logistical lead times also increased. "Tariffs and non-tariff barriers, such as customs processing costs and regulatory differences, have increased transaction costs and reduced market access for companies operating throughout the European Union" (Badaoui, 2024). We see that formalities impacted exchanges and created some delays in the supply chain management. As an example, it has been reported that companies have been directly confronted with export challenges.

“An export health certificate, which you require for every meat product, are £200 each and there’s been vet shortages as well on top of the increased need for them. So these extra costs for sending meat abroad, exporting it, are costing the industry around £50 million and that money has to come from somewhere” (a farmer quoted in the qualitative interview of Lindsey, O’Brien, & Clark, 2024),

In our previous research about companies’ preparation for Brexit, we read that companies were afraid to be confronted by late deliveries and, the day after the end of negotiations, “The inconveniences in the form of port congestion, blockages of goods and longer delivery times soon became apparent” (Chaumette, 2021). What companies had feared happened and some changes of strategy needed to be developed and implemented quickly. Ports were also mainly impacted by the new regulations: because of new customs control, maritime flows needed to be reorganized, which also led to an extension of delivery times.

As a result, the Just in Time-organised supply chain was mainly impacted because this system requires a simple flow of goods without interruption, based on the concept of “flow” (Handfield and Linton 2023). “The latter illustrated the vulnerability of manufacturing (and not just auto) that relies on ‘Just in Time’ (JIT) supply chains to any form of Brexit that could cause customs delays and supply chain disruption.” (Bailey et al., 2022, p. 475). As companies had to face delays and more procedures, this previously operational efficiency-focused system was impacted significantly. Manufacturers experienced higher costs and greater inefficiencies because they were forced to adjust their operations, and therefore their strategies by rethinking their inventory management process.

2.2.2 The repercussion

We have seen that all these changes in controls and policies have created delays so companies were forced to rethink their supply chain management.

To start we know that companies have reviewed their strategy, sometimes with drastic effect: “A large number of European companies have simply stopped exporting to the UK” (Badaoui, 2024). Lots of firms chose to reduce their exports and limit exchange with the UK because of the prices they now had to pay for control but also because of the complexity Brexit had created.” The share of EU goods exports in total UK imports has remained slightly below its pre-Brexit level; by contrast, the share of imports from non-EU countries continues to grow” (Badaoui, 2024). Among many government ministers and ruling party members of parliament, it had been seen as more interesting to have non-EU suppliers, encouraging supplier diversity. Given the newly imposed legal and regulatory conditions, business leaders were forced to respond accordingly. We also have some examples of companies that had deliberately chosen to relocate their production. “Companies, such as Jaguar, are leaving the UK to relocate to mainland Europe, specifically the Netherlands and Slovakia, mainly due to uncertainty surrounding post-Brexit trading conditions” (Badaoui, 2024). In the first part of our literature review, we highlighted this possible strategy, and we now see that it had been used after the negotiation ended. Still, with the idea of developing some solutions, the EU tried to find new ways of replacing the UK, “Investment programmes and spatial planning policies can be identified and prioritized to enhance the role of specific regions as EU hubs in the GVC network” (Tsekeris, 2021, p. 1511). By investing in new roads and vision, it appears that they are trying to replace their previous exchange.

Reconfiguring their supply chain is a challenge for both parties (EU and UK). “Firms had to weigh the risks of reduced access to EU markets against the opportunities that might arise from new trade agreements with non-EU countries” (Du et al., 2025). For UK companies it has been important to realize the losses and opportunities that will appear from dealing with new countries. It was relevant to take into consideration all the impacts that can arise with the reconfiguration of their supply chains, to the extent of considering strategic adjustments that need to be made.

In addition, based on the literature review, it is evident that European countries were a somewhat more prepared than the UK: "The fact that the UK regions form a single country cluster which is not strongly interconnected with the continental EU regional clusters... may imply that the impact Brexit will have on GVC will be largely concentrated in the country" (Tsekeris, 2021, p. 1505). As predicted, the impact of Brexit has been more important for the UK than EU member countries, not least due to asymmetry of one country outside a single market facing 27 EU member states inside a single market. In fact, EU countries have been able to count on other countries in the world and easily/strategically replace its trade with the United Kingdom, which has much less to offer with respect to goods for sale. This has not been possible for the UK, which has far fewer alternatives.

Then, as we had concluded in our analysis of earlier published literature, depending on the companies' size the impact was not the same. "Only 6.5% of UK firms had plans to adjust supply chains" (Aquilante, 2022). This quotation shows us that smaller companies were not prepared enough for all these changes, and "During pre-transition planning, small businesses in particular opted to embrace nearshoring over a diversity in suppliers" (Aquilante, 2022), meaning that smaller companies chose to have closer suppliers before the Brexit which was probably not the best choice regarding the Post-Brexit situation. It is also important not to forget that "Smaller companies have been most affected by the period of uncertainty compared to larger companies which are better able to absorb the associated costs." (Badaoui, 2024). Indeed, "SMEs were disproportionately affected by Brexit-related uncertainty, while MNEs were more likely to relocate operations outside the UK, exacerbating trade declines" (Du et al., 2025). Relocating had been a solution for big companies, which was not likely to be the case for small ones with more limited resources.

Contrary to small businesses, "Larger firms, while still favouring nearshoring, planned to become more resilient via a combination of the two strategies" (Aquilante, 2022). Larger companies chose to find a balance between

nearshoring and relocation, their goal was to be able to face different types of decisions/ situations by diversifying their suppliers.

“So, we’ve had a few suppliers, probably five or six, one major supplier in Germany, that basically said they no longer will deliver to us anymore” (Bailey et al., 2022, p. 477). This quotation highlights the point that Brexit impacted directly the relationship between the buyer and the supplier. Because trading with the UK became sometimes too expensive for EU companies they chose to stop working with some of their long-time suppliers. "Some suppliers have basically refused to deliver in the Brexit date ... Britain is not the centre of the world, they have a huge number of countries within the European Union and outside the European Union to take care of" (Fuller, 2022, p.1971). In addition, it was easier for companies to focus on trading with other companies with reliable and simple supply chains than with UK, a country where regulatory and policy changes were constant. These new Brexit-imposed arrangements were negative for both suppliers and buyers. Consequently, they both had to find a new partner, which is not necessarily easy, especially regarding the possibility of not finding a similar agreement to the one they had together before Brexit.

At least Brexit’s impact, as it had been predicted, was different depending on the sector of activity. *"The increase in UK-EU trade barriers has led to a 6% increase in food prices in the UK over the period between the end of 2019 and September 2021 in comparison to the years before December 2019."* (Bakker et al., 2022). Inflation had been caused by Brexit so the impact on consumption as well could have been forecasted. Inflation and the change in customers’ habits also have an impact on the supply chain. Depending on their sector of activity companies were also not impacted in the same way because regulations and tariffs were not the same. "Products with high EU import shares such as fresh pork, tomatoes, and jams were more affected than those with low EU import shares such as tuna and exotic fruits like pineapple" (Bakker and al., 2022).

To conclude, it is important to notice that “Brexit has not been as much of a disaster as it could have been but that is partially because of our [companies’]

preparation and flexibility, and hard work by our [companies'] logistics planning people" (Bailey et al., 2022, p. 478). Some businesses have invested in searching for solutions and preventing or mitigating the risk of Brexit (by diversifying their suppliers, and stockpiling goods, among other measures). Companies with strong supply chain resilience had been able to deal with some Brexit new regulations better than others and as a result, had been less impacted.

2.2.3 Companies have not only faced Brexit but also Covid-19

At the same time Brexit was announced, Covid-19 was already disrupting supply chain organizations. Companies suddenly had to face two big crises at the same time.

First, companies were simply not prepared to face these crises. Just-in-Time logistics strategy was most impacted by Brexit and Coronavirus.

"The business objective of maintaining low stock levels, especially for short shelf-life products, based on JiT [Just in Time] supply chain strategies, relies on the Dover Strait and Channel Tunnel routes. This therefore represents something close to a single point of failure in the UK food distribution network, potentially exposed by COVID-19" (Garnett, Doherty & Heron, 2020, p. 317).

The difficulty in forecasting with COVID-19 and the delays in production and transport caused significant disruption to this logistics strategy. In addition, "Approaches such as 'lean sourcing', just-in-time (JiT) logistics, standardized components and reductions in the supply base have tended to neglect the systemic risks caused by exogenous shocks or disruptions to supply chains" (Garnett, Doherty & Heron, 2020, p. 315). The supply chain lacked resilience during that time. Even when they tried to implement new strategies (like we have seen previously in section 2.1.2: Company reactions and anticipated strategies), it was not enough.

Furthermore, COVID-19 created disruption in the labour supply, so also affecting the supply chain of companies. "Workforce safety concerns and lack of available workforce due to travel restrictions and social distancing measures could hold up the picking of fruits and vegetables in the EU or UK, directly affecting the supply of fresh food" (Garnett, Doherty & Heron, 2020, p. 317). Indeed, companies were confronted with new problems. Due to Brexit, lots of workers needed to get a Visa to work legally in the UK. To get this visa it was necessary to pay and some workers were not able (or did not want) to pay for the visa. "It's now incredibly difficult to bring workers over if they don't meet the visa requirements which are strict and, in my opinion, unnecessary" (a farmer from the qualitative interview of Lindsey, O'Brien, & Clark, 2024). Then, it took some time for some other workers to be able to get their visas, due to the long administration process. In addition, because of COVID-19, some sanitary measures have complicated work interaction, and the supply chain needs to be adapted to face all these problems.

"Brexit has affected sectors that rely on cross-border commerce with EU countries, while services that require face-to-face interaction have been negatively impacted by Covid 19" (Paraskevadakis, D. & Ifeoluwa, A., 2022). It is important to notice that during the COVID period actions that needed interaction took more time than before. So, as Brexit created new administration phases it was hard for companies to deal with them at the same time as dealing with the impossibility of being helped face to face by a qualified person.

"Covid 19 epidemic restricts people's migration, and Brexit, which results in the UK having a geographical barrier with other EU countries, has had a significant impact on the RoRo ferry sector" (Paraskevadakis & Ifeoluwa, 2022). In the maritime sector, COVID-19 forced the supply chain to be rethought, as operations were not the same and the new borders created by Brexit did not help. We can imagine a company that had just improved its supply chain under EU single market rules and in 2021 it needed to meet the new Brexit regulations. With the end of the negotiation, new control on borders proceeded, and it was sometimes more expensive for companies from certain countries to

continue using the UK as a route for transportation to and from Ireland: "Due to Brexit and Covid-19, several Irish businesses moved from using the UK landbridge for exports to direct shipping routes to continental Europe, despite higher costs" (Paraskevadakis & Ifeoluwa, 2022).

"Dramatic changes in market demand and the supply chain network have made buffer management and flexibility less effective in the Covid-19 situation" (Suhaimi, Zhang, Liu, & Godsell, 2023). It had been perceived that COVID-19 created changes in supply chains. As a result, new challenges and situations appeared and every company tried to do its best to adapt its strategy and operations to all those new needs.

Then, this literature highlights that supply chains need to be more resilient.

"The COVID-19 recovery requires a focus on building redundancy and diversity in the food system, new institutional structures across the UK government, international collaborations and an investment in UK farming to boost sustainable production" (Garnett, Doherty & Heron, 2020, p. 318).

Being more resilient will help companies to avoid and be prepared for future crises or challenging situations. The pandemic underlined that companies should improve and restructure their supply chain.

To conclude, crises like those discussed above sometimes push companies to develop their supply chain: "Supply chain planning is more effective in Brexit and Covid-19 than in the normal situation" (Suhaimi, Zhang, Liu, & Godsell, 2023). Maybe we can recognise that crisis can create benefit sometimes to companies because they improve their strategy and become more resilient as a result of having to develop an appropriate response. By facing risky situations, they must try to find solutions, so as to analyze their processes and do better.

3 Research methodology

3.1 Research methods

To conduct this thesis, the following methods were implemented.

First, it was important to gain an understanding of the topic by learning about the timelines of the event and how the concept of Brexit developed. By conducting different readings, with varying points of view and also different types of literature, we were able to know who was involved, why the UK decided to leave the European Union as it did, and the impact of that on supply chains.

To continue, by reading a variety of literature and learning more about the topic as understood from different perspectives, the idea of dividing the thesis into two parts (with the first one about the negotiation and the second one about the situation after Brexit was definitely pronounced) emerged. In fact, to well describe and analyze the impact of Brexit it is important to use the timeline of the event and to see that information didn't arrive all at the same time, but was itself emergent. By reading this thesis according to the chronology of events. With this analytical method, we understand better companies' situations and decisions because they took time depending on what was happening; that is to say, decision-making was necessarily contingent. Also, some literature sometimes was not relevant enough to be used because they were saying quite the same thing as some others, descriptive at best and often somewhat superficial, while other authors explored the subject more deeply, so it was important to be able to choose the right information sources that contained the most useful and clear information.

In addition, we have used the results of qualitative empirical research, such as that conducted on farmers in the United Kingdom, whose goal was to show the vision of the British people of this situation. This kind of information meant that there was greater evidential support for certain conclusions, and of a kind more

likely to be reliable than a new survey conducted with far smaller resources, as would have been the case for this project.

3.2 Limitations

On the basis of the sources consulted, we discovered that we can quickly face some problems/difficulties during our research.

First, for our references, it was necessary to find some without an overbearing or strident political position about the subject. Of course, this can be difficult because when you talk about political issues, as many authors are likely to have a political opinion that will impact objectivity, even in scientific publications. The Brexit debate inside Britain, both before and after the referendum, was particularly intense (Ford and Goodwin 2017).

In addition, we were surprised because Brexit is a huge topic, but there were less documents and literature on this subject (relating to its impact on supply chains) than we expected. Documents with different information and reliable sources were sometimes hard to find. Even though some articles were not focusing only on the supply chain impact but on the financial effects more generally (so they were hard or impossible to use), we can find more articles on the topic during the negotiation. This is probably linked with the uncertainty created by this period and the fact that information was all the time in movement. We can now start to find a few articles on the impact of Brexit with a more distant view, a perspective of 4 years later at the time of writing, but these are still not enough to cover all the challenges created by Brexit. Also, some documents link the Covid-19 and the Brexit impact on companies' supply chain, as we wanted to focus more on the Brexit impact, we were not able to use some of these works due to the lack of clarity regarding causation.

To continue, with all the research that we have conducted, we can say that there remains a gap in the literature related to this subject. In fact, we can

analyze the companies' resilience in the case of Brexit, but we cannot eliminate supply chain risk permanently, irrespective of the various causes. So, this thesis helps to see how some strategies can help to face some hard situations, but some challenges will remain hard to overcome. Outsourcing has created interdependence and risk. Nowadays, in business, there is all the time uncertainty and some events that we cannot prevent, like for example the covid 19 pandemic.

Then, during our research, we were confronted with the impossibility of finding some precise information about companies' strategies during Brexit because they are either not clear or not available, most often because they are treated as confidential information. So, using real and complete examples of companies that will explain some choices or situations is sometimes impossible without direct access.

To conclude, on the basis of the above, we understand that the topic remains to some extent incomplete because we continue to perceive the emergence of some hitherto unrecognized impact of Brexit. In fact, some repercussions have been perceived within this year (2025) and this process of discovery is likely to continue in the future. To a certain and not insignificant extent, Brexit and its impact remain not wholly understood and only time will help to give answers to some questions.

4 Conclusion

In conclusion, the literature review reveals that Brexit has been a long, difficult and even unresolved crisis for companies' supply chains. At first, to reduce the possible impact of Brexit on their structure, companies tried to prevent the risk by introducing new strategies. However, lack of information and uncertainty during the negotiation complicated the possibility for companies to forecast or anticipate the new regulations, tariffs, and problems they will have to face when

Brexit was finally realised. In the middle of the COVID-19 crisis, organizations had to face a second challenge: adapting themselves to the impact of Brexit. On 31st December 2020, the United Kingdom was definitively leaving the European Union, so as a result of the long negotiation period, new tariffs and obligations were implemented. As predicted, depending on the size of the company or its sector of activity, the challenges were not the same for all: for example, it was easier for big companies to invest in their supply chain research to be more responsive to whatever arrangements emerged. With our analysis, we observed that Brexit has yielded the consequence of late delivery for many firms, and this has impacted the relationship between suppliers and buyers. In addition, for the UK, it appears that the country had probably been more impacted because some organizations decided to stop trading with the country due to the difficulty of implementation of the new rules and the impact that trading with the country could have on costs. Brexit event cost Britain some companies' investments.

To conclude, Brexit continues to have an impact on companies' supply chains today; it seems that some repercussions have yet to be fully perceived. It would be interesting in the future to analyze at a deeper level the concept of a resilient supply chain in the context of a crisis (such as Brexit). Also, in 2030, it would be possible to develop a more comprehensive analysis of the final impact of Brexit on supply chain structures from a more distant point of view.

References

Aquilante, T. 2022. How are UK Supply Chains Coping in the Post-Brexit Era? Dun & Bradstreet.

Badaoui, I. 2024. Brexit : Quel impact économique pour l'Union Européenne ? Louvain School of Management, Université catholique de Louvain. Available at : <http://hdl.handle.net/2078.1/thesis:43614> [Accessed 8 March 2025].

Bakker, J.D., Datta, N., De Lyon, J., Opitz, L. & Yang, D. 2022. *Post-Brexit imports, supply chains, and the effect on consumer prices*. London: UK in a Changing Europe, King's College London. Available at: https://media.ukandeu.ac.uk/wp-content/uploads/2022/04/UKICE-Supply-Chains-Report_Final.pdf [Accessed 3 April 2025].

Bailey, D., de Ruyter, A., MacRae, C., McNeill, J. and Roberts, J. 2022. Perceiving and managing Brexit risk in UK manufacturing: evidence from the Midlands. *Contemporary Social Science*, 17(5), pp. 468-484. Available at: <https://doi.org/10.1080/21582041.2022.2073386> (Accessed: 4 March 2025).

BBC News. 2020. *Brexit: What you need to know about the UK leaving the EU*. 30 December. BBC News. Available at: <https://www.bbc.com/news/uk-politics-32810887> [Accessed 3 April 2025]

Chaumette, P. 2021. La mise en œuvre maritime du Brexit. *Neptunus*, 27(4), pp. 1-16.

Dempsey, H. 2021. Action demanded to tackle logistics crisis. *Financial Times (Europe)* 26 October.

Du, J., Shepotylo, O., & Yuan, X. 2025. How did the Brexit uncertainty impact services exports of UK firms? *Journal of International Business Policy*, 8(80–104).

European Commission. 2020. *EU-UK Trade and Cooperation Agreement*. Official Journal of the European Union, L 444, 31 December. Available at: <https://eurlex.europa.eu/legalcontent/EN/TXT/?uri=OJ:L:2020:444:TOC> (Accessed: 10 March 2025).

Flach, L., Teti, F., Wiest, L. & Atzei, M. 2020. EU27 and the UK: Product dependencies and the implications of Brexit. EconPol Policy Brief, No. 32. ifo Institute - Leibniz Institute for Economic Research at the University of Munich. Available at: <https://hdl.handle.net/10419/233522> [Accessed 16 Feb. 2025].

Ford, R., and Goodwin, M. 2017. Britain after Brexit: A Nation Divided. *Journal of Democracy* 28 (1): 17-30. <https://doi.org/10.1353/jod.2017.0002>

Fuller, C. 2022. 'Brexit, the mediation strategies of foreign corporate subsidiaries and regional resilience', *Regional Studies*, 56(11), pp. 1961-1975

Garnett, P., Doherty, B. & Heron, T. 2020. 'Vulnerability of the United Kingdom's food supply chains exposed by COVID-19', *Nature Food*, 1(6), pp. 315–318. Available at: <https://doi.org/10.1038/s43016-020-0097-7> (Accessed: 26th March 2025).

Gupta, R., Hasan, M.M., Islam, S.Z., Yasmin, T. and Uddin, J. 2023. Evaluating the Brexit and COVID-19's influence on the UK economy: A data analysis. *PLOS ONE*, 18(6), p.e0287342. Available at: <https://doi.org/10.1371/journal.pone.0287342> [Accessed 25 March 2025].

Handfield, R., and Linton, T. 2023. *Flow: How the Best Supply Chains Thrive*. Toronto: University of Toronto Press.

Institute for Government. 2020. Preparing Brexit: How ready is the UK? Available at: www.instituteforgovernment.org.uk (Accessed: 04 February 2025).

Kaloyanova, G. 2023. Supply Chain Disruptions in the United Kingdom Caused by Brexit. University of Economics - Varna, International Economic Relations Faculty, Bulgaria.

Ke, L., Liu, Q., Han, K. and Zhang, W. 2024. The impact of Brexit on supply chain cost and Ro-Ro traffic at Dover. *Maritime Policy & Management*, 51(7), pp.1350-1366.

Kolko, G. 1961. Max Weber on America: theory and evidence. *History and Theory* 1 (3): 43-60. <https://doi.org/10.2307/2504315>

Kotios, V. and Braithwaite, A. 2017. Investigation of the supply chain impacts and opportunities for the UK of Brexit. Proceedings of the 22nd Annual Logistics Research Network Conference, Southampton, pp. 1-12.

Kren, J. and Lawless, M. 2024. How has Brexit changed EU–UK trade flows? *European Economic Review*, 161, p.104634.

Kwasniok, T., Guarraia, P. and Garstka, M., 2017. Is Your Supply Chain Ready for Brexit? Bain & Company. [Online] Available at: https://www.bain.com/contentassets/994f98ff25774dcfa15c43b1a345ba6e/bain_brief_is_your_supply_chain_ready_for_brexit2.pdf [Accessed 25 November 2024].

Le Figaro. 2015. *Pourquoi un Brexit serait très mauvais pour les Britanniques*. Le Figaro. Available at: <https://www.lefigaro.fr/economie/le-scaneco/decryptage/2015/05/19/29002-20150519ARTFIG00159-pourquoi-un-brexit-serait-tres-mauvais-pour-les-britanniques.php> [Accessed 25 January 2025].

Lindsey, G., O'Brien, G. & Clark, B. 2024. Perceived effects of Brexit and the COVID-19 epidemic on the UK lamb value chain: a qualitative interview-based study. *British Food Journal*. Available at: Emerald Insight [Accessed 24 March 2025].

Love, D.C., Green, F.H.K., Kim, H.H.S. & Karimi, R. 2018. The role of seafood in global food security. *Marine Policy*, 100, pp. 228-233. Available at: <https://www.sciencedirect.com/science/article/pii/S0308597X18304573> [Accessed 3 Mar. 2025].

O'Rourke, K. 2019. *A Short History of Brexit: From Brentry to Backstop*. London: Penguin Books.

Oyegoke, A.S., Fisher, B.W., Ajayi, S., Omotayo, T.S. and Ewuga, D. 2023. 'The disruptive factors and longevity effects of Covid-19 and Brexit on the SMEs construction supply chain in the UK', *Journal of Financial Management of Property and Construction*. Available at: <http://researchonline.ljmu.ac.uk/id/eprint/20382/> (Accessed: 25th March 2025).

Paraskevadakis, D. & Ifeoluwa, A., 2022. An industry-level analysis of the post-Brexit and post-Covid 19 Ro-Ro ferry market and critical maritime freight transport links between the UK and the EU. *Journal of Shipping and Trade*, 7(27). Available at: <https://doi.org/10.1186/s41072-022-00127-4> (Accessed: 26th March 2025).

Piserà, S. 2024. Hidden effects of Brexit. *Research in International Business and Finance*, 67, p.102158. [Online] Available at: <https://doi.org/10.1016/j.ribaf.2023.102158> [Accessed 2 December 2024]

Quinet, L. 2019. *Analyse des risques et des conséquences du Brexit sur les économies nationales et les Supply Chains internationales*. Louvain School of Management, Université catholique de Louvain. [Online] Available at: <http://hdl.handle.net/2078.1/thesis:20663> [Accessed 5 December 2024].

Rudnick, D. 1972. An assessment of the reasons for the removal of the French veto to U.K. membership of the European Economic Community. *International Relations* 4 (6): 658-672. <https://doi.org/10.1177/004711787200400603>

Sabbagh, D., and Jolly, J. 2019 Government letter to Nissan reveals Brexit promise to carmakers. 4 February. Available at: <https://www.theguardian.com/politics/2019/feb/04/government-letter-to-nissan-reveals-brexit-promise-to-carmakers> (Accessed: 20th March 2025).

Schnapper, Pauline. 2012. Le Royaume-Uni dans l'Union Européenne : le début de la fin ? *La Vie des Idées*, 7 February. Available at : https://lavedesidees.fr/IMG/pdf/20120207_ru-ds-ue.pdf (accessed 5 February 2025).

Suhaimi, Z. S., Zhang, W., Liu, X., & Godsell, J. 2023. Understanding the current state of supply chain resilience practices: Learning from Brexit and Covid-19. Loughborough University. Available at: <https://hdl.handle.net/2134/24113688.v1> [Accessed 25 March 2025].

The Electoral Commission. 2019. Results and turnout at the EU referendum | Electoral Commission. [online] www.electoralcommission.org.uk. Available at: <https://www.electoralcommission.org.uk/research-reports-and-data/our-reports-and-data-past-elections-and-referendums/results-and-turnout-eu-referendum>. [Accessed 15 November 2024].

Touteleurope.eu. 2025. *Le Brexit en 3 minutes*. Touteleurope.eu. Available at: <https://www.touteleurope.eu/fonctionnement-de-l-ue/le-brexit-en-3-minutes/> [Accessed 16 January 2025].

Tsekeris, T. 2021. The European value chain network: key regions and Brexit implications. *European Planning Studies*, 29(8), pp. 1495-1513.