



AFTER BREXIT

TRADING CONDITIONS BETWEEN THE UK AND THE EU

TECHNICAL REPORT
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Abstract

Brexit, in the guise of the Trade and Cooperation Agreement (TCA) between the UK and EU, has not created a flat, level playing field for trade among equals but an imbalanced and only narrowly “free” trading relationship. We arrive at that general conclusion with the following three parallel arguments. One, the TCA imposes a series of important and immediate constraints on trade, which are felt more in the UK because of the relative weights of the UK and the EU economies. Two, the TCA’s internal logic produces a dilemma for the UK: either stick to EU standards to preserve trade with European counterparts, or modify its standards to facilitate new free trade agreements, but with the substantial risk of cutting off its companies from the single European Market as a result. Three, Brexit takes effect at a particularly complex moment in the recent history of the advanced capitalist political economies: Covid-19, the Green Transition, automation, wider changes in the labour market and macro-economic uncertainty after two massive crises and public bail-outs (2008/09 and 2020/21) all militate, in the short and medium run, against a successful transition into a post-Brexit world.



1. Executive summary¹

This paper provides a strategic overview of the impact of Brexit on British corporate business models, against the background of larger trends in industrial reorganisation, and the restructuring of supply chains, globally and in the UK and the EU. Our key findings include:

- **Brexit and the Trade and Cooperation Agreement (TCA)** have produced a very bumpy “free” trade area for goods.
- **Trade in services** is only tangentially covered by the agreement.
- Due to the relative size of markets, **the trading constraints and non-tariff barriers** hit British traders disproportionately harder than their EU counterparts. For many (small) firms the new red tape and correlated cost increases upend the commercial viability of exports to the EU.
- **The flexibility of the TCA** – portrayed to be one of its main benefits – poses a significant source of continued uncertainty. Still outstanding or only temporarily granted access rights, such as equivalence decisions, and the permanent threat of the reintroduction of tariffs in the case of non-compliance give the EU significant leverage over the UK government.
- Rather than resulting in an increased capacity to foster national **resilience and economic growth**, Brexit has thus created a situation of perpetual uncertainty. By de facto creating a dilemma for the UK government between regulatory freedom and EU market access, the TCA constrains the UK government’s ability to negotiate new ambitious trade deals with other nations.
- **In the wake of Covid and the Green Transition**, the UK, like most advanced capitalist countries, is facing deep structural changes in its economic organisation and markets. Brexit and the new trading environment, however, make the adjustment for British firms significantly harder than for others. Moreover, the dynamic interaction of these political-economic ‘mega-trends’ exacerbates and prolongs downturns and forecloses certain choices while it increases time pressure on others.

1 - Part of this research was funded by [Nord France Invest](#) and the [Région Hauts-de-France](#).

2. After Brexit: The new constraints to trade

What does the Trade and Cooperation Agreement (TCA), sealing the UK's new relationship with the EU from January 2021, imply for business on both sides of the Channel?

The official position of the UK government is that it allows for frictionless trade between the two trading partners and that problems today will be ironed out as both gain experience with the new arrangement. In the long run – a decade from now, say – relations between EU and UK will have stabilised and the UK will be able to flourish as a result of the TCA and the free trade agreements the country is now able to conclude with the rest of the world. In this paper, we make the case for a considerably more nuanced understanding of the effects of the TCA on businesses in the UK. The future may be hard to predict, but not impossible to think about. An analysis of the dynamics set in motion by important details of the TCA, wider adjustment processes in the economy, and the strategies adopted by UK governments since the Brexit referendum in June 2016 help us a long way.

The upshot of our analysis is simple: Brexit, in the guise of the TCA, has not created a flat, level playing field for trade among equals but an imbalanced and only narrowly “free” trading relationship. We arrive at that general conclusion with the following three parallel arguments. One, the TCA imposes a series of important and immediate constraints on trade, which are felt more in the UK because of the relative weights of the UK and the EU economies. Two, the TCA's internal logic produces a dilemma for the UK: either stick to EU standards to preserve trade with European counterparts, or modify its standards to facilitate new free trade agreements, but with the substantial risk of cutting off its companies from the single European Market as a result. Three, Brexit takes effect at a particularly complex moment in the recent history of the advanced capitalist political economies: Covid-19, the Green Transition, automation, wider changes in the labour market and macro-economic uncertainty after two massive crises and public bail-outs (2008/09 and 2020/21) all produce, in interaction with Brexit and the TCA, new, UK-unique problems in the short and medium run.

The balance of this paper starts with an analysis of the new trading environment for British goods and services exporters as well as effects, constraints, and uncertainty that the TCA has created. Recognising that Brexit and the new trade arrangements have coincided with significant cyclical pressures (such as Covid) and structural changes (such as the Green Transition) in the economy, we identify critical overlaps of this triple shock and develop two case studies to display the dynamic interaction between these three political-economic ‘mega-trends’. Lastly, we put our findings in a wider context in a short conclusion.

THE TCA HAS CREATED, AT BEST, A RELATIVELY BUMPY “FREE” TRADE AREA FOR GOODS...

There seems to be a relatively widespread lack of understanding about what the post-Brexit trading environment means in practical terms for British and European exporters, and how the constraints following from the TCA between the UK and the EU affect them. While relatively fluid, the terms of the TCA – not all too different from the EU-Canada CETA agreement – far from guarantee uninhibited trade between the EU and the UK. Since the EU is a free trade zone for its members, leaving the Single European Market necessarily implied a reduction in the freedom to trade. That is clear. What is perhaps less well understood is how exactly the TCA does that.

Despite widespread belief that trade in goods is friction-free, exporters who are nominally covered by a tariff-free trading arrangement under the TCA, still face significant barriers to trade. Table 1 below lists the most important formal and informal obstacles that UK companies face when trading goods with the EU (and, in principle, vice versa). The list is not only relatively long for a frictionless free trade agreement; it also covers many specific goods, the occupations and sectors associated with those goods, and therefore often has concentrated repercussions for local economies involved in producing these goods and agricultural products.

TCA COMMITMENTS	EFFECTS ON EXPORTERS
RULES OF ORIGIN (ROO)	To qualify for tariff-free exports, a minimum share of the value added must be produced in the UK or the EU.
PRODUCT MARKING AND STANDARDS	Products made in the UK for the UK market will have to bear a UKCA marking, distinct from the CE marking (which companies can still use for some products until January 2023). Without an EU equivalence decision, companies will have most of their products reassessed by the EU and/or UK relevant competent authority to get either of the markings. Products can bear both the CE and UKCA marking, but only if they comply with both regulations.
CUSTOMS REGULATIONS AND VAT	All goods exported and imported have to respect customs requirements, such as import/export declarations, which can dramatically increase the red tape that companies face and increases prices for consumers (frequently up to €20 per declaration). While the British VAT is waived for EU buyers, they are now invoiced at their national VAT rates on all UK orders.
TARIFFS	The UK-EU free trade agreement only covers blanket provisions for tariff- and quota-free trade of goods under certain conditions such as the RoO requirements mentioned earlier; else tariffs apply.
ADHERENCE TO ENVIRONMENTAL AND LABOUR STANDARDS	The UK is committed to maintaining labour and environmental standards that are broadly equivalent to those of the EU. Wages and working conditions should also be considered broadly equivalent. In all these areas, the EU needs to formally approve the equivalence to allow tariff-free exports into the bloc.
SANITARY AND PHYTOSANITARY (SPS) REGULATIONS	All living animals and plants as well as products of animal/plant origin must be physically checked at the point of entry into the EU, in addition to customs clearance.
UK COMPANIES' EXPOSURE TO BROADER EU REGULATIONS THAT APPLY TO THIRD COUNTRIES	Since 1 January 2021, when the UK left the EU and its Single Market, companies in the UK are located in a 'third country': by default, in the areas not covered by the TCA, they come under the same trade restrictions as countries without trade deals with the EU.
TAX AND VAT RULES	The EU has launched a VAT reform for e-commerce , which came into force on 1 July 2021. This modifies thresholds for VAT collection on online sales in Europe and, importantly, substantially modifies the way companies in third countries (including the UK, in other words) can sell into the Single Market and pay their VAT.

... AND AN EVEN BUMPIER ONE FOR SERVICES

While the financial services sector has already lost some business to other global financial centres because of the very limited regulatory equivalence granted by the EU, Brexit will also hit many other UK service suppliers. Although the TCA contains commitments on market access for non-financial services, there are a huge number of sector- and country-specific exemptions, limiting the level of access for UK services firms to the EU services market. These so-called reservations in the annex of the TCA cover 211 pages, making up almost a fifth (!) of the whole 1241-page long agreement.

This outcome – following the UK government's decision to focus on trade in goods when negotiating with the EU – is particularly worrying given the importance of these sectors to the UK economy. In 2019, services accounted for 80% of the total UK economic output (in Gross Value Added) and around 30 million jobs. In 2018, services accounted for 46% of all UK exports, (40% of which went to EU member states) but only for 34% in France and a mere 17% in Germany. Additionally, while the UK had a trade deficit in goods in 2018, it ran a substantial surplus of £28bn (€32bn) in services.



In addition to these essential market access limitations, UK service suppliers face significant additional non-tariff trade barriers in the areas of business travel and the mutual recognition of professional qualifications.

The new requirements for UK contractual service suppliers (i.e. professionals providing a paid service in the EU) – including the potential need for visa, work permits and even economic needs tests in some jurisdictions – mean that British service firms might stay grounded even after the Covid-restrictions are lifted. A band of five musicians on a tour through six EU countries, for instance, might need to file up to 60 individual forms (5 people X 6 countries X 2 forms, one for visa and the other for work permit) and often deal with multiple national authorities with varying abilities of swift application processing. The [UK Government recently](#) announced that musicians could tour through 19 EU countries without needing visas, but [industry professionals argue](#) that they still need more clarity on touring conditions, and that other costly constraints remain, related to paperwork required for instruments and cabotage rules which limit truck movements in the EU. These constraints risk making music tours financially unviable, especially for less established artists.

Furthermore, not unlike many goods being subject to a quality check, some service suppliers operate in regulated professions. In the EU – under a procedure called the mutual recognition of professional qualifications (MRPQ) – a qualification obtained in one member state is automatically recognised in any other EU country. The TCA – like many other EU trade agreements – doesn't include this mechanism. This means that for regulated professions – ranging from legal professionals over engineers to architects, for example – UK and national EU competent authorities will have to negotiate bilateral recognition agreements or individuals will have to re-qualify, often implying a return to universities.

While the digital trade section in the TCA is seen as best in class, its success is largely contingent on the EU's data adequacy decision.

Non-EU member states must be afforded data adequacy to store and process data of EU citizens. Although the UK has secured a positive decision from the EU Commission recently, the right has been limited to 4 years, after which the EU will re-evaluate the equivalence of data protection mechanisms. The expiration date and the Commission's warning that they could revoke the decision at any point if EU citizens' data were not accurately protected in the future gives the EU further leverage in an important policy area. Regulators in Brussels will monitor any attempt to change the UK data protection legislation carefully, thus limiting the UK government's ability to deregulate a policy area that is growing in importance. While digital as well as more traditional 'offline' traders can celebrate their right to process and store their EU clients' data, any sudden moves by the British government could have serious negative consequences for them.

Combined, therefore, Brexit and the TCA have created a complex web of basic rights, national restrictions, and new obligations for British service exporters.

Many (small) traders who lack the resources to gain a detailed understanding of the TCA will either continue to export as usual and run the risk of being fined or simply might stop trading.

But the problems do not end there: even though services are only tangentially covered by preferential treatment and market access, the UK government cannot de- or re-regulate as it sees fit. The EU will likely interpret any drastic deregulation in UK services sectors as a threat to the 'level playing field' between UK and EU exporters of goods: cheaper services are lower-cost inputs into traded goods, which might benefit UK manufacturers. The consequences in the interconnected TCA-environment would therefore not just hit services suppliers but could also provoke a reintroduction of tariffs for UK goods exporters. Rather than laying the groundwork for a bonfire of regulations, the UK government may well have negotiated themselves into a regulatory straitjacket. However, since they appear unwilling to accept this, businesses suffer not only from reduced market access and trade barriers but will also face continued uncertainty.

THE TCA: DIFFERENT EFFECTS, UNCERTAINTY AND CONSTRAINTS

Like every other international treaty, the provisions in the TCA are symmetric in the sense that they apply equally to all signatories. However, the same rules may have very different effects on different parties in a contract – a key point that is often ignored in the official British reading of the TCA. The reason is very simple: The different relative weights of exports in the receiving economies. The UK is proportionately a much smaller market for the EU than the other way around: Almost 50% of all UK exports of goods in 2019 went to the EU, while the UK accounted for just 6% of all EU manufacturing exports that year. Restrictions on exports, which formally apply symmetrically, will therefore have negative effects that may be an order of magnitude larger for the UK: the Centre for European Reform estimates that leaving the single market and customs union has reduced UK trade in goods by £10 billion or 13.5 per cent in May 2021. That actual asymmetry was, as it were, built into the TCA.

These average effects will vary across countries, regions, sectors, and companies on both sides.

Northern France, Belgium and the Netherlands are, because of their geographic proximity to the UK and the role their large ports play in exports, including to and from the UK, likely to feel the effects more than the Stuttgart region or the Czech Republic, respectively 600 and almost 1000km away from Calais. However, UK manufacturers are both sectorally and geographically more concentrated (the result of specialisation in an internationalising economy and of industrial legacies in the Midlands and the North of the country). The EU has already signalled the possibility of a Brexit adjustment fund for hard-hit regions, and many governments have a financial and organisational toolbox that will allow them to alleviate at least part of the shock. In the UK, however, this shock will interfere with the 'levelling up' agenda of the Johnson government and thus either make the fiscal cost of redistribution within the country higher or increase many of the social and regional inequalities that have grown significantly over the last thirty to forty years.

But the TCA also comes with another, perhaps less immediately visible but definitely more important conundrum that could prove perilous for UK exporters.

Usually, the main benefit of FTAs is that they formalise trade liberalisation into international law, binding the hands of governments, and hence, creating certainty for traders. However, the extremely complicated and last-minute nature of the TCA negotiations made the agreement much vaguer, with some of the most difficult discussions (including the often cited and extremely important equivalence decisions) simply postponed. Furthermore, the TCA foresees 19 specialised committees – sitting under a ministerial level joint partnership council – which cover almost every aspect of the agreement and can suggest (marginal) changes to the deal.

While the potential for gradual upgrades to the TCA sounds like welcome news for UK exporting firms, the very flexibility of the TCA could also leave it disintegrating slowly. Not only can both parties terminate the agreement unilaterally (with a 12-month notice period), but breaches of TCA commitments could negatively influence reciprocal trade and investment flows. The well-documented possibility of a unilateral reintroduction of EU tariffs on British exports as punishment for UK divergence in labour or environmental standards is just the most prominent expression of this redefined relationship. Given the current (mid-2021) state of mistrust between UK and EU and the evident lack of political will on either side of the Channel, British exporters remain very vulnerable to sudden shifts, even if they reshuffle their processes to fully adhere to the new rules.



The TCA, thus, imposes a dilemma on the UK: On the one hand, the post-Brexit treaty forces the UK to keep up with EU standards and ties the government's hands in deregulating sectors that are covered by the TCA to secure access to the Single Market; yet the TCA also limits the possibility for the UK to negotiate additional FTAs with other nations in so far as they contradict the standards set in the TCA. In effect, the TCA imposes a strong form of extra-territoriality: access to the largest single market in the world hands the EU the possibility of imposing rules and standards indirectly, precisely because it is such a large market. If the EU refuses the imports of hormone-treated beef from the US, for example, then the UK will have to accept that restriction in its negotiations with the US, lest it foregoes access to the single market. For if beef can be freely traded between the US and the UK, as well as between the UK and the EU, it is de facto freely traded (or tradeable) between the US and the EU – something that the EU has never accepted. The UK is, therefore, forced to choose between the clauses in the TCA or those in the FTA with the US but can, as things stand now, not conclude both trade agreements. And because the size of the EU in the UK's trade portfolio in goods is so large, even compared to the US, it effectively leaves the UK little choice but to accept the EU's restrictions. In addition, this EU-size effect not only limits the UK's room for manoeuvre in further trade negotiations but also introduces red tape where it did not exist before. British producers may have to make the same product differently for the UK, EU, and global markets, with different standards and marks, because of the different industrial norms operating in each trading bloc.

In sum, Brexit and the TCA have increased uncertainty, constraints, and paperwork for exporters on all sides.

But British traders suffer disproportionately more because of the relative sizes of the economies and their export sectors. And that size effect also precludes the freedom to conclude free trade agreements with clauses that run counter to EU standards (and vice versa, but that hardly stings exporters in the much larger EU), so replacing lost trade in Europe with increased trade elsewhere is not really a viable option. And the regulatory de-coupling means that UK producers now face different standards, product marks and bureaucracy if the EU does not accept that its standards are equivalent to the EU's.

3. The triple shock of Brexit, Covid and the Green Transition

During the Brexit negotiations between 2016 and 2020, the world moved on (as it were – 2020 felt more like going back), and with sometimes dramatic consequences. Covid-19, the aftermath of the Great Financial Crisis, the Green Transition and its effects on industrial adjustment, and longer-term processes in the world of work and industry related to automation have produced a complex and ultimately very unfavourable context for the TCA and Brexit. Some of these are simply ‘additional’ problems, which receive a dollop of Brexit-induced friction; others have much more of an interactive, and thus deeper and stronger ‘multiplicative’ effects, which are a product of the combination of Brexit and further interaction terms – and therefore more entangled, more strongly and deeply rooted, and hence harder to handle. We will examine each of these in turn.

A ROUGH START FOR GLOBAL BRITAIN

Like most advanced capitalist countries, the UK is facing deep **structural changes in its economic organisation and markets**, because of **the Green Transition, supply chain restructuring and automation, new forms of working and increased inequality**, all processes that have been accelerated by the Covid-19 crisis. This series of shocks followed on the back of a lengthy recovery from the Great Recession. Governments, firms, and other organisations are suddenly facing a new world as a result. While this is a tough job for anyone, the Government, firms, and citizens in the UK, have to confront an additional term in the already difficult equation: the economic disruption that follows from Brexit. The dynamic interaction of these political-economic ‘mega-trends’ exacerbates and prolongs downturns and forecloses certain choices while it puts time pressure on others.

In economic terms, the timing of Brexit could not have been worse. The first disruptions related to the TCA since it came into force on **1 January 2021** coincided with one of the biggest Covid waves to date. While the progress of the vaccination program could bring Covid under control (depending on the Delta variant and other future variants), the full magnitude of Brexit consequences will only become clearer when the economy is operating normally again.

The pandemic-induced economic coma has made clear that many of our systems, including production models and supply arrangements, are far from robust.

The transparency-inducing fragility of just-in-time production, for example, which was heralded as one of its greatest virtues only two decades ago, has unveiled itself as an endemic weakness. More than one observer is today clamouring for resilience in **supply chains**, including built-in redundancy, as a result. All other things equal, we may be witnessing a significant retrenchment of global supply chains and a resurgence of much more deeply integrated local and regional production systems that cover many of the parts that are now (or could be) spread over the globe. The UK's departure from the EU might have opened the opportunity to hold trade negotiations with global markets, but the reinforced focus on local and regional networks makes the success of this strategy uncertain, at best.

The pandemic, however, with its immediate effects that have monopolised our attention and policy-making over the last year, has temporarily obfuscated a series of considerably deeper structural trends which throw much longer shadows. **One of these is related to decarbonisation of the economy, which comes in many shades of green.** A challenging and potentially upsetting logic is unfolding in the green transition of the automobile industry, as we will discuss in more detail below. Brexit and the imminent electrification of automobiles will impose dramatic choices for car manufacturers in the UK, because of how the move from cars with internal combustion engines to electric vehicles could change the economics of car manufacturing, particularly given the constraints imposed by the TCA's Rules of Origin (RoO) requirements. Combined, these trends exert substantial pressures, in various directions, on virtually all sectors and companies with a significant share of exports. Global Britain is off to a very rough start.

INTERACTION IN ACTION: BREXIT, BATTERIES, AND THE BRITISH AUTOMOBILE INDUSTRY

The automotive sector illustrates how such a combination of Brexit, and the policy and market shift to electric vehicles forces changes in supply chains that were close to unimaginable only a few years ago. The RoO requirements embedded in the TCA are crucial in this regard. In January 2021, a six-year transition period started, with a gradually increasing percentage of 'originating' components (i.e. produced in the UK or EU) for exports of domestically produced cars (i.e. those made in the EU or the UK) from 40% (from 2021) to 55% (from 2027) of the final value. In the absence of such minima, exported cars in both directions face a 10% tariff. Yet more than 80% of all UK-made vehicles are exported, and since more than half of exported UK cars go to the EU, the cost of RoO will disproportionately be felt in the UK. Not only does the EU export proportionately considerably less to the UK, intra-EU trade is not subject to these RoO requirements, which makes them, all other things equal, considerably more competitive.

The challenge to comply with these new requirements is significantly exacerbated by the rapidly accelerating green transition in the automotive industry. Both the UK government and the EU are proposing a de facto ban of new diesel and petrol cars by 2030 and 2035, respectively. Against the background of this shift to battery-powered electric vehicles (EVs), the RoO requirements imply dramatic changes in supply chain and the organisation of manufacturing – or a collapse of the local industries.

Very few of the complex, high-value added batteries that power EVs are made in the EU or UK at the moment. But they can represent up to half of the EV value, which means that most other parts have to be domestic (UK or EU) in origin to meet the current generous RoO conditions. The relative value of batteries is likely to remain high: newer, stronger and fast-charging batteries will remain expensive, especially because we are only at the start of innovations in batteries. Additionally, the continuing shortage and price increases of semiconductors – which are important parts for consumer electronics and EVs (and their batteries) – will put further pressure on British automobile manufacturers in their quest to comply with RoO requirements, especially as these components are mainly produced in Asia.

The pincer movement of high battery prices – which are a higher proportion of a EV's value added as compared to internal combustion engine vehicles – and a rising RoO requirement will therefore make the current production arrangements in the UK impossible to sustain for practically all large car companies. Without a functioning battery supply chain, EV production simply will not take off in the UK, potentially leading to a demise of the industry and a loss of more than 100,000 jobs. If the UK wants to avoid this cliff-edge, it must embark on yet another moonshot mission and construct a whole sector – including massive public-private investment, training for workers, and inter-firm network coordination – more or less from scratch and within less than 6 years.

While that is a tall order by any standard, so far only the Japanese carmaker Nissan has announced its plan to increase its battery production in Sunderland to potentially 6-9 GWh. Stellantis, owner of Opel and PSA, has announced similar intentions. While the UK government is in talks with large manufacturers (including Ford, Samsung and LG Chem) about building battery 'gigafactories' in the UK, it is unclear if discussions are progressing quickly enough to meet the 2027 deadline for sharper RoO requirements (such factories take years to build and reach operating capacity, even after a speedy approval process). In addition, a recent report warns that the planned annual battery production capacity of 45 GWh from 2030 is almost 100 GWh short of the forecasted demand in 2040 (140 GWh). Despite this process being riddled with uncertainty, there seem to be three basic possible scenarios.

1. No or low progress in the battery supply chain by

2027: Higher RoO requirements bite and EVs built with non-UK-originating batteries are subject to a 10% tariff when exported to the EU. While car manufacturers could continue to build EVs with non-originating batteries for the UK or non-EU market, it is unclear if this strategy would pay off, since the UK currently exports roughly 40% of its cars to the EU. Of course, UK carmakers could also import batteries from the EU and then re-export the whole car tariff-free. However, this seems unlikely: because of the batteries weight and their high danger potential during transport, OEMs prefer battery plants in close vicinity to their car assembly plants. Additionally, in a potential world of battery-scarcity, EU battery producers – often (co-) owned by European carmakers who are also racing to scale up their EV production – are likely to prioritise EU over UK clients. Without a battery supply chain by the RoO due date, UK plants might thus only be used for domestic production or legacy technologies (internal combustion engine vehicles), which would spell the demise for most of the sector and thousands of jobs.

2. Medium to strong progress in a UK battery supply

chain: On the contrary, even if there is not a full delivery but at least credible progress in battery production capacity, UK carmakers could temporarily import batteries from the EU to complement the remaining domestic shortage. Alternatively, the UK government could ask for an extension of the RoO transition period, but the success of this strategy is entirely dependent on the EU's political goodwill, which will be influenced by the UK's general political demeanor and specific progress in industrial reshuffling.

3. Goal met with successful delivery of battery supply

chain: In the best-case scenario, which is admittedly difficult to imagine from where we are today, the UK succeeds in setting up a large-scale domestic battery supply chain, UK-based OEMs can continue to export cars tariff-free to the EU and the British automobile industry continues to exist. However, even in this best-case scenario, UK-based producers might face a cost-disadvantage in EU exports relative to continental

manufacturers, as – due to the RoO requirements, which don't apply to intra-EU exports – they have to use a minimum level of locally-sourced (and therefore usually more expensive) parts. Moreover, UK battery production will have to follow EU legislation currently being drafted – covering everything from due diligence on raw materials to battery cell recycling – since EVs that don't comply with the new standards won't be allowed into EU markets.

INTERACTION IN ACTION: SOVEREIGNTY, SAUSAGES AND AGRI-FOOD RULES

The TCA has made life for British exporters disproportionately harder and the related EU extra-territorial standards significantly reduce the negotiating capital of the UK government in trade talks with other nations. Importantly, however, the TCA also interacts with other elements of the delicately crafted post-Brexit package – most notably the Northern Ireland protocol. The agri-food sector (including the latest tragicomedy about British sausages) is an interesting example in this regard.

The UK agri-food sector – consisting of agriculture and fisheries; food and drink manufacturing, wholesaling, and retailing; as well as non-residential catering – contributed about 10% (£120bn or €137bn) of Gross Value Added in 2018 and employed more than 4m people in the UK in 2019. Over 60% of the sector's exports go to the EU and while the TCA has nominally achieved tariff- and quota-free trading, the agreement brings significant new hurdles for agri-food traders.

Apart from RoO requirements for agri-food exports – 85% (and 90% for fisheries) of the weight of the exported product must originate either in the UK or EU to qualify for tariff-free trade – the most prominent example of new non-tariff barriers in the sector are sanitary and phytosanitary (SPS) checks and requirements. This means that most agri-food products have to undergo veterinary checks before entering EU customs territory. To export fresh meat, processed food and drinks, food and drinks that contain products of animal origin, and vegetables, fruits and other plants used as food to the EU, British traders need to apply for an export health certificate (EHC). An EHC is required for each type of animal or

animal product and product type (for mixed product consignments) and must be certified by an official UK vet or inspector. The new requirements thus not only place a significant cost and time burden on agri-food exporters, but might also push UK vets to their capacity limits quickly.

Making matters even more complicated, the EU importer of British agri-food products must pre-notify EU border control points (BCP) of the incoming UK shipment at the first point of entry into EU customs territory. After a document check at the border, the process is completed when the competent national authority of the country of final destination confirms the arrival of the consignment and the required documents. Failure to comply with pre-notification or documentation requirements could lead to delays in customs clearing, resulting in further increased trade costs (especially in the case of potential losses of perishable food). In particular small traders will find it difficult to deal with the new environment, and while customs agents or bonded warehouses present workable alternative solutions, the arising additional costs put the UK at a competitive disadvantage relative to intra-EU agri-food exporters.

While 80% of checks could be averted under a Swiss-style veterinary agreement, the UK government vehemently argues against the establishment of a Common Veterinary Area, as it “smacks of rule taking” and goes against the principle of British sovereignty that has underpinned Brexit policy since 2016. Or in other words, the UK government (rightly) fears that regulatory alignment with EU food standards would make a trade deal with the US almost impossible due to the heavily diverging preferences on hormones used in meat (especially beef) production, as we discussed earlier.

However, the interaction between the TCA and the Northern Ireland protocol de facto already implies that the UK will have to comply with EU extra-territorial constraints, lest it wants to risk economic losses and continued diplomatic tensions. Let's unpack this reasoning. Failure to comply with agri-food-related requirements and procedures in the future, in effect, would mark a break with the Northern Ireland Protocol. Without the relevant checks completed in the Irish Sea, before entry into Northern Ireland, which remains a part of the Single Market, the EU would have to ensure that UK agri-food products do not enter the Republic of Ireland. But that can only be done by re-imposing a hard border on the island, a step that goes against the NI-protocol and the Good Friday agreement.

As the UK has signed the protocol – a binding international agreement – **failure to comply with the intricate web of interconnected regulations might lead to legal steps from the EU's side.** However, and potentially even more painful for the British economy, UK refusal to apply the Northern Ireland protocol is likely to reduce the EU's political goodwill, which would almost certainly lead to negative outcomes for still outstanding or only temporarily granted equivalence decisions under the TCA, or – in the worst case – to a unilateral termination of the agreement.

At the time of writing, it is unclear if the British government will accept the EU's latest proposals or if the UK moves to trigger Article 16. The latter would temporarily suspend the Northern Ireland Protocol with potentially significant trade-political ramifications. The looming uncertainty and potential economy-wide repercussions spell trouble for UK traders.

4. Conclusion:

From global value chains to resilient local economy

More than five years ago, Brexit started off with the ambition to ‘take back control’ over domestic policies and global trade relations. And while ‘nothing is agreed until everything is agreed’ was the dictum during the negotiations, the general assumption on the UK government’s side was that after maybe a few TCA teething problems, Brexit would be a clean break from the rules of EU membership and all the related uncertainty for businesses and consumers would disappear.

However, only nine months into the new relationship between the UK and the EU, there are clear signs that **Brexit and the TCA are not static agreements** but produce a series of dynamic, and often unforeseen effects. Leaving the EU after 45 years of close economic integration was never going to be easy, as the remaining entanglements in Rules of Origin, sanitary checks and asymmetric equivalence demonstrate. But the wider political-economic canvas against which Brexit is placed, involving changes in the world of work accelerated by the Green Transition and Covid, also contributes to making Brexit more complicated. While both the increased attention to climate policies and the pandemic, with its dramatic economic effects, would have happened regardless of Brexit, the interaction between these different processes and constraints makes adjustment disproportionately harder for the UK than for the rest of Europe.

‘Take back control,’ the slogan of the Leave campaign, has since morphed into **‘Global Britain’**. This shift in terminology has signalled a renewed focus by the UK government towards negotiating as many new trade deals outside the EU-EEA as possible. But there are three problems in seeking to do so. One, on its own, the UK – a considerable, but compared to the EU nonetheless small economy – is unlikely to negotiate better trade deals than the EU (the largest single market and free trade zone). Two, because the terms of the TCA (and related EU standards) have strong extra-territorial effects, they constrain the UK in its current global trade negotiations. And third, there is no such thing as a free lunch: the immediate outward focus (as expressed in Global Britain) implies a trade-off with building up strategic institutional

capacity to shape transition efforts in traditional sectors (as in the interaction between Brexit and the Green Transition), while also hampering the development of new innovative sectors (which, somewhat ironically, would possibly not be as constrained by the TCA as traditional industries are). Examining Brexit thus requires looking beyond 'sausage wars' and developing an awareness of second- and third-order effects of leaving the EU which are simultaneously more abstract and more stringent.

Brexit will therefore not only continue running, possibly for decades, as many pointed out. It will also become more and more unpredictable as different, often contradictory, elements of the Brexit framework go up against one another (see the tensions between the British interpretation of the NI Protocol and the TCA), or as Brexit meets the world outside the relations between the EU and the UK (such as Covid-19, Green Deal, automation, etc.). Confronted with these challenges, supply chain resilience - globally and especially with the EU - and adaptability will be the key for UK businesses both to survive the short-term Brexit shock and to manage the transition into a highly uncertain future.

5. Appendix:

Remaining barriers for UK (and EU) goods exporters under the TCA

The post-Brexit free trade agreement between the EU and the UK (Trade and Cooperation Agreement, or TCA) has created a very bumpy free-trade area at best. The list below indicates the most important trade barriers, which imply a reshuffling of production processes and supply chains, but also increase the red tape British traders encounter if they want to export goods to the EU (and, in principle after the unilateral UK transition period for imports ends, vice versa).

1. Rules of Origin: In order for goods to be traded free of tariffs, they cannot have more than a specific percentage of their value arising from so-called 'non-originating' components (i.e. components that are produced neither in the UK nor the EU). While the **Rules of Origin** (RoO) requirements vary across different product markets, they all hover between 10% and 50% of value, with a sequenced transition period until the end of 2026 for some sectors. In the automobile industry, for example, the threshold for originating content in exported cars will climb from 40% (2021 – end of 2023) to 45% (2024 – end of 2026), and to 55% from 2027.

2. Product marking and product standards: Products made in the UK for the UK market will have to bear a **UKCA marking, distinct from the CE marking** (which companies can still use for some products until January 2023). As it is unlikely that the EU will grant a broad-brush equivalence, companies will have their most of their products reassessed by the EU and/or UK relevant competent authority to get either of the markings. Products can bear both the **CE and UKCA marking**, but only if they **comply with both regulations**. Any regulatory divergence will make the dual-marking challenging, potentially requiring the production of (marginally) different products for EU and UK markets.

3. Customs regulations: All goods exported and imported have to respect customs requirements, such as import and export declarations. The red tape that this creates necessarily slows down trade flows, especially as companies make (sometimes) very small administrative mistakes in the process of adapting to the new paperwork. Anecdotal evidence suggests that for smaller companies in the UK the cost of the extra requirements may outweigh the benefits of trade with the EU under the new regime. This could lead to a reduction in exports or the (partial) relocation of British business activity to the EU.

4. Tariffs: While the UK/EU free trade agreement provides for tariff- and quota-free trade of goods, it does so only under certain conditions – in particular the earlier RoO requirements. If these conditions are not respected, tariffs apply, which is likely to make certain export-based business models unviable and therefore substantially restructure value and supply chains. The nightmare scenario that was reported in the Guardian several years ago of a Mini crankshaft that crossed the Channel four times and incurred significant tariffs each time, may have been avoided. The basic problem remains, however, especially for products where a significant part of the value added resides in raw materials and components that are rare in Europe. In those cases, EU companies have a significant competitive advantage since they can freely trade within the Single European Market, regardless of RoO, while similar UK companies may see themselves hamstrung by the requirements.

5. Adherence to environmental and labour standards: The UK has committed to maintain labour and environmental standards that are broadly equivalent to those of the EU. Wages and working conditions should be deemed to be broadly equivalent – though it is unclear who exactly will make that call. Similarly, the environmental credentials of exported UK products will be evaluated by the EU (and vice versa, though very few observers see that as a problem) but it is, again, unclear who exactly will be involved in that process.

The condition of broadly equivalent labour and environmental standards as a prerequisite for tariff free trade has one very important consequence for the UK: It makes an export model based primarily on cost competitiveness – the main viable short-term strategy for an economy with a highly deregulated labour market – almost impossible to pursue. It would usually make little sense for a company exporting to the EU to run a parallel lower-regulation model to export products to the rest of the world. Thus, EU standards impose important extraterritorial constraints.

6. Sanitary and phytosanitary (SPS) regulations: All living animals and plants as well as products of animal/plant origin must be checked and customs-cleared at the point of entry into the EU. Clearance requires physical presentation and assessment of the imported livestock and plants, which are obvious material hurdles to trade, since the evaluation capacity at borders is not necessarily aligned with short-term demand for it. While these obstacles can be overcome, they imply significant re-organisation arrangements and ensuing costs (eg. through the need to obtain export health certificates from domestic UK veterinaries before sending goods to the EU).

7. Tax and VAT rules: The EU has launched a [VAT reform for e-commerce](#), which came into force on 1 July 2021. This modifies thresholds for VAT collection on online sales in Europe and, importantly, substantially modifies the way companies in third countries (including the UK, in other words) can sell into the Single Market and pay their VAT. One way that UK companies can adapt is to make the export process to the EU a B2B operation, so that goods are delivered to customers from a starting point in the EU.

8. UK companies' exposure to broader EU regulations that apply to third countries:

The fundamental issue here is one that is organically linked to the terms of the TCA, which are seen by most observers as embodying a 'hard' Brexit. From 1 January 2021, companies in the UK are considered to be located in a 'third country'. Since the UK has not negotiated significant exemptions to that third-country regime, they fall, by default, under the same trade restrictions as countries without trade deals with the EU. Leaving the Single European Market automatically has that effect, as the EU has pointed out tirelessly throughout the negotiations. One recent example demonstrates the trade-debilitating effect of this third-country status. Simply enforcing a ban that applies to all third countries, the EU recently banned the import of UK shellfish harvested in 'Class B' waters (ie. second category clean waters). Several fishermen around Cornwall (where waters are classified as Class B) thus are no longer able to export their shellfish to the EU, despite the fact that the waters themselves have not changed since Brexit and that this trade has been happening for decades. All EU regulations that apply to third countries – even those that change nothing in practice but only on paper – can now negatively impact the UK, because it is no longer protected as an EU member.

