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Implementing Brexit: Customs

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Our Brexit work

Following the UK's vote to leave the European Union (EU), the Institute for Government has launched a major programme of work looking at the negotiations, the UK's future relationship with the EU and how it governs itself after Brexit. Keep up to date with our comment and Brexit explainers, read our media and broadcast coverage, and find out about our events at:

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About this paper

This is the second in a series of papers on implementing Brexit by the Institute for Government.

Each paper looks at an area of UK Government policy that needs to change as a result of Brexit, and makes an assessment of how it might change, what will be required to implement the change and whether or not there is a cliff edge – that is, policy areas where there will be significant disruption on the day of the UK's exit from the EU, unless all necessary preparatory measures are in place or a transitional/phased implementation deal can be reached with the 27 EU member states.

In each paper, we set out the policy options for the Government after exit, noting where those choices are dependent on the outcome of the exit deal and future arrangement with the EU. We look at the task ahead for the Government, what will be required to design and implement a new policy and system, and highlight some key considerations and recommendations.

Contents

List of abbreviations

AEO	Authorised Economic Operator
APHA	Animal and Plant Health Agency
CBI	Confederation of British Industry
CDS	Customs Declaration Services
CHIEF	Customs Handling of Import and Export Freight
CIS	Customs Information System
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
EEA	European Economic Area
EMCS	Excise Movement and Control System
ENS	Entry Summary Declaration
EU	European Union
EU27	27 other EU member states
EUROPHYT	European Union Notification System for Plant Health Interceptions
GMPP	Government Major Projects Portfolio
HGV	Heavy goods vehicle
ICT	Information and communication technology
JCCC	Joint Customs Consultative Committee
NCTS	New Computerised Transit System
RoRo	Roll-on, Roll-off ships
SAD	Single Administrative Document
SME	Small and medium-sized enterprises
TRACES	Trade Control and Export System
UCC	Union Customs Code
WCO	World Customs Organization
WTO	World Trade Organization

Summary

The Government has set out its objectives for Brexit: the UK will leave the jurisdiction of the European Court of Justice, control immigration from the European Union (EU) and pursue an independent trade policy. Meeting these objectives means that the UK will leave the European Single Market and the EU Customs Union.

This inevitably means significant changes to the way the UK border operates, whether it is the Irish land border or ports and airports around the country. This is true regardless of whether the UK continues as a member of the Single Market, creates a new customs union or signs a 'deep and comprehensive' free trade agreement.

Traders who are used to moving goods freely to the EU will need to adapt. They will have new requirements for paperwork and their goods could face significant checks at the EU border. Supply chains that are optimised for speed and fluidity will need to find the space and time for customs authorities to carry out checks and inspections.

For the UK, 'taking back control' of its borders is likely to mean the introduction of checks for goods arriving from the EU. For the Ports of Dover and Holyhead and the Channel Tunnel, which have adapted to EU membership and between them account for almost half of all the UK's trade in goods by value, the number of customs checks could increase by a hundredfold. International agreements mean that there are certain requirements that the UK must meet at its border; there is no option of simply deciding to give EU goods preferential treatment without a deal between the two. That also makes a deal critical to managing the specific set of challenges faced at the Irish border.

The introduction of border checks between the UK and the EU could happen overnight. As the Government has recognised, customs is a cliff-edge issue. On the day of exit from the EU, the UK authorities will need to perform new functions or face disruption at the border. There will be new document checks and fiscal requirements, which is the primary focus of the Government's view of customs, but also a number of other key activities that regulate goods crossing borders. This report takes into account the broader spectrum of activities which relate to the cross-border movement of goods.

Implementing the customs changes required for Brexit is a huge task with a hard deadline. For government, successful delivery requires overcoming some big risks:

- With 19 months until exit, **there is no clarity on what customs will need to look like on day one of Brexit** – currently 29 March 2019 (hereafter referred to as 'day one'). The UK Government has set out its preferences for an interim period and options for a future relationship with the EU, but each brings with it different implementation requirements. The EU will have its own position and until an agreement is reached, whether it is a transitional or final arrangement, government must continue to prepare for 'no deal', which means the most extreme change in the shortest period of time.

- The Government has said it wants to explore options for transition that mean business only has to adjust once to a new customs arrangement. The only option for delivering this continuity looks very similar to applying all of the rules of EU membership but leaving the political institutions. **Until there is agreement on**

transition, there will be continued uncertainty not only about what is required for customs post-Brexit but also about when it will be required.

- **Preparing for day one requires government to orchestrate change across over 30 government departments and public bodies, with more than 100 local authority organisations affected**. Responsibility for different elements of the customs process sits right across the public sector. From HM Revenue and Customs (HMRC) to the Horticultural Marketing Inspectorate, from Border Force to over 100 port health authorities across the country, day-one delivery depends on a very large, disparate group all working closely and effectively.

- The government information and communication technology (ICT) 'Customs Declaration Services' programme started long before the EU referendum was announced but is **critical to customs after Brexit**. It is under real pressure and successful delivery is in doubt. The programme has had to contend with constricting timelines and a huge change in some requirements. Non-delivery would leave the UK facing significant disruption on day one.

- Despite these government ICT challenges, new and innovative technology is being touted as the answer to the Brexit customs problem. **With less than two years to deliver and no clear idea of what this 'new technology' is, ministers must be clear about what is and what is not feasible**.

But the biggest risk for government is just how little of the process it controls. If the UK is going to avoid the customs cliff edge, the Government is one of many different players who are needed to be ready if disruption is to be minimised:

- UK customs relies on private sector organisations. Government collects the duties on goods and conducts the checks, but it is the private sector that provides the infrastructure, logistics and paperwork. Port operators, clearance agents and freight forwarders are just a few of the players in the complex web that sits outside government. **Successful change relies on all these organisations being ready**. In the past they have been given years to adapt to any government change; **they now have fewer than 20 months to prepare without yet being clear what they are preparing for**.

- There are 180,000 traders who will need to make customs declarations for the first time after exit; many of whom will be small and medium-sized enterprises (SMEs). They will need to manage increased administration and incur the cost of doing so. **The introduction of customs declarations alone could end up costing traders in the region of £4 billion (bn) a year**. For these traders to be ready for exit, government must be clear about when and how they must adapt, and leave them enough time to do so. Until they are given some certainty on what is required from them on day one, the amount of this work that can take place is limited.

- **There is a cliff edge at the other side of the English Channel too**. Even if the UK's border is ready for Brexit, issues in Calais, Rotterdam or other European ports could cause significant disruption for British exporters and supply chains. The famous queues of lorries along the M20 in Kent in June 2015 were a result of problems on the French side, not in Dover. Government is dependent on the successful preparation of European partners. Engagement and collaboration are critical but so is certainty on what customs after Brexit will look like.

Customs is undoubtedly one of the challenges, if not the biggest challenge, facing the Government in avoiding the cliff edge and implementing Brexit. This paper considers the administrative task and highlights some key recommendations:

- HMRC should replicate the Union Customs Code (UCC) in its entirety for its immediate post-Brexit plans, as it has indicated it will. The UK's existing customs system is designed around this and keeping it will help to ensure continuity.

- HMRC must prioritise the delivery of its ICT 'Customs Declaration Services' programme in its current form, delivering the basics before introducing new functionality.

- Ministers must recognise that 'innovative, new ICT' is not a viable option in the short term.

- The Department for Exiting the European Union should seek to negotiate continued access to EU customs systems, in particular the EU's New Computerised Transit System (NCTS) and the Common Transit Convention.

- HMRC and Border Force need to recognise the constraints at the physical border and find means to limit the activity required at key ports or crossings, such as trusted trader schemes.

- The Government should continue to use the cross-government Border Planning Group to orchestrate preparations for day one, but there must be clear ownership of, and responsibility for, delivering the overall plan for readiness.

- HMRC, Border Force, the Department for Environment, Food and Rural Affairs (Defra), the Department for Exiting the European Union and other key public bodies and departments must expand engagement with the private sector beyond the Joint Customs Consultative Committee. They should use more detailed working groups to manage implementation and the dependencies on the private sector as well as detailed transition planning for traders – with, as already noted, 180,000 traders due to make customs declarations for the very first time after exit.

1. Introduction

The UK needs to address how it will manage the movement of goods in and out of the country following Brexit. Customs is an exclusive EU competence, which means that the treatment of goods at the UK border has been determined in Brussels for past decades. Outside of the EU, not only will the UK regain 'control' of its borders, it will also face the introduction of potentially significant barriers to trade. Some of these may be reduced or eliminated by negotiations, but what remains will require the implementation of a new and expanded system of customs to handle trade with the EU.

This is our second paper looking at how Brexit will affect specific areas of government policy and what steps need to be taken to implement the necessary changes. Our last paper looked at how changing our immigration system creates implementation challenges.[1] This paper takes a similar look at the requirements associated with implementing changes to our customs regime.

We present two views of customs: the first captures the current situation while the second presents an assessment of how customs could look after Brexit. We then examine six key areas where the Government and the private sector will need to deliver in order to ensure that the UK's system of customs continues to function, and function well:

1. **Policy and legislation** – key policy questions facing Whitehall and how the Government can ensure that legislation is passed to avoid a cliff edge.

2. **Technology** – the essential ICT work under way to prepare for day one of Brexit, the viability of 'new technology' as a solution to Brexit border problems and key EU systems for negotiators to focus on.

3. **Customs infrastructure** – the constraints that limit the potential for expanding customs infrastructure in response to increasing demand and how the Government should look for alternative solutions that shift the emphasis of customs away from the border.

4. **Government co-ordination and capability** – how the Government should manage the major cross-government exercise that is customs preparation by supporting effective communication and co-ordination between departments, local authorities and public bodies.

5. **Preparing business** – how the Government should work with the extensive private sector interests in customs to ensure that issues are addressed and there is sufficient preparation and capacity for customs on day one.

6. **A canyon, not a cliff edge** – there are two sides to the cliff edge and preparations across the Channel are just as important as preparations in the UK for minimising disruption.

The breadth and complexity of customs pose a challenge to any summary analysis of this kind. The focus of our research has been on the impacts on the major seaports and the Channel Tunnel link. The lessons that can be learned there are applicable to

airports and minor points of entry. We do not try to do justice to the specific question of the Irish border, although we do reference it where directly relevant.

This paper does not cover what the legal oversight of customs might look like after Brexit, or how this will affect supply chains. These issues are discussed in several of our other Brexit-related reports.

2. How customs works now

For the hundreds of thousands of importers and exporters, customs is a critical part of how they do business. Moving their goods from A to B involves interactions with multiple actors, modes of transport and technology systems.

Take, for example, a Turkish manufacturer of white goods to be exported to the EU. They load a crate of the goods onto a container, put it on the back of a lorry and it is driven away from the factory. Government has already been notified of the trade through an export declaration, submitted electronically by a 'freight forwarder' – a third party paid by the exporter to handle paperwork and transport the goods. The goods are taken to the 'port of exit' to leave the country, but before they can do so they need to be cleared by customs authorities.[2] The authorities carry out a risk assessment, based largely on the information submitted in the export declaration, and decide whether or not the goods need inspecting. If they are cleared without inspection, they are loaded onto a ship and head towards their destination. If they require inspection, they must first be placed in storage to await inspection from port authorities.

Next stop is the 'port of entry'. The goods are presented to the authorities of the country of entry via another declaration. The white goods are unloaded and placed in temporary storage while the country of entry conducts another risk assessment. Once all applicable duties have been paid and the goods have been cleared, the container is loaded onto another lorry and transported to the importer's storage space. From there it is distributed to local stores.

Customs is about more than just revenue

The example above offers a simplified example of how an integrated country outside the EU trades with the bloc. This is enabled by multiple interdependent processes and systems owned and operated in hundreds of different locations by thousands of different organisations, both public and private.

What we call customs goes beyond simply the collection of tariffs on goods as they are traded (see Table 1). It involves enforcement of a wider set of rules and regulations that determines what can be traded and how it is treated by authorities.

Table 1: List of border operations

Functions	Related activity
Revenue collection	• Collection of customs dues, excise dues and other indirect taxes • Payment of dues and fees • Management of bonds and other financial securities
Safety and security	• Security and smuggling controls • Dangerous goods • Vehicle checks • Immigration and visa formalities • Export licences
Environment and health	• Phytosanitary, veterinary and hygiene controls • Health and safety measures • Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) controls • Ships' waste
Consumer protection	• Product testing • Labelling • Conformity checks with marketing standards (for example, fruit and vegetables)
Trade policy	• Administration of quota restrictions • Agriculture refunds • Trade defence • Customs agreements

Source: Grainger (2011)[3]

With falling tariffs and higher volumes of trade, focus has shifted from revenue generation and towards security, regulations and standards. Governments are focused on the careful management of what is going in and out of their country – preventing smuggling, making sure that animals aren't carrying diseases, checking that food is safe to eat, ensuring that chemicals are properly handled and car parts aren't faulty and, crucially, making sure that their domestic traders aren't being unfairly undercut.[4] These rules and regulations are just as important as duties and taxes being collected (if not more so).

Modern customs systems must strike a balance between providing this security and facilitating the flow of goods. There are 37 million tonnes of trade a year passing through Southampton alone, including more than a million containers. Inspecting every import or export would be a massive undertaking, creating delays and blockages.

To minimise unnecessary checks and prevent disruption to supply chains, customs has become intelligence led. Risk assessments help customs authorities to target inspections, identifying goods or traders that present most risk while allowing legitimate trade to pass as freely as possible. As a result of this approach, documentary checks are carried out on less than 3% of imports (non-EU only and further specialist checks may take place for highly regulated goods).[5] Decisions on what to check are driven by information such as where the good is from, the volume and type of good and the trading history of the importer or exporter. A small package from an unknown trader is treated with greater scepticism than a weekly consignment from a company that has been shipping like clockwork for the past 20 years.

Technology and a greater use of data have helped to speed things up and improve intelligence gathering. Crucially, they mean that paperwork can be submitted and checked electronically before the goods leave the factory, let alone reach the border. But, for trade with most countries outside the EU, some customs checks are unavoidable. For trade between EU member states, these checks are almost non-existent.

Membership of the EU means a single approach to customs

The longstanding ambition of the EU has been a 'borderless Europe' where people, goods, capital and services can move freely without regard for national boundaries.[6] In many respects, it has been successful. Customs procedures, regulating the movement of goods, have been largely eliminated for trade between EU member states. A trainer manufacturer in the UK can sell to a shop in Toulon with little more hassle than selling in Tunbridge Wells; there is very little of the process we described at the start of this chapter (shown below in Figure 1). UK traders looking to send their goods to the EU fill in at most a single form, an 'Intrastat declaration' for VAT, and the goods move across borders unchecked and unimpeded.

The reduction in customs procedures for trade between EU member states (known as 'intra-community' trade) is driven by the EU Customs Union and the European Single Market.

The EU Customs Union ensures that any non-member wishing to sell their product inside the EU faces the same tariff regardless of which member state it arrives in. By setting up a common external tariff, duties are also removed for trade within the EU's Customs Union. The Single Market has driven harmonised or equivalent regulation, generally meaning that goods meet a common EU-wide standard regardless of the country or region they come from. Because of this, goods that are produced and can be legally sold in one member state are trusted by all others and do not need additional checks as they cross borders. This trust is reinforced by the oversight of EU-wide regulatory agencies and the European Court of Justice.
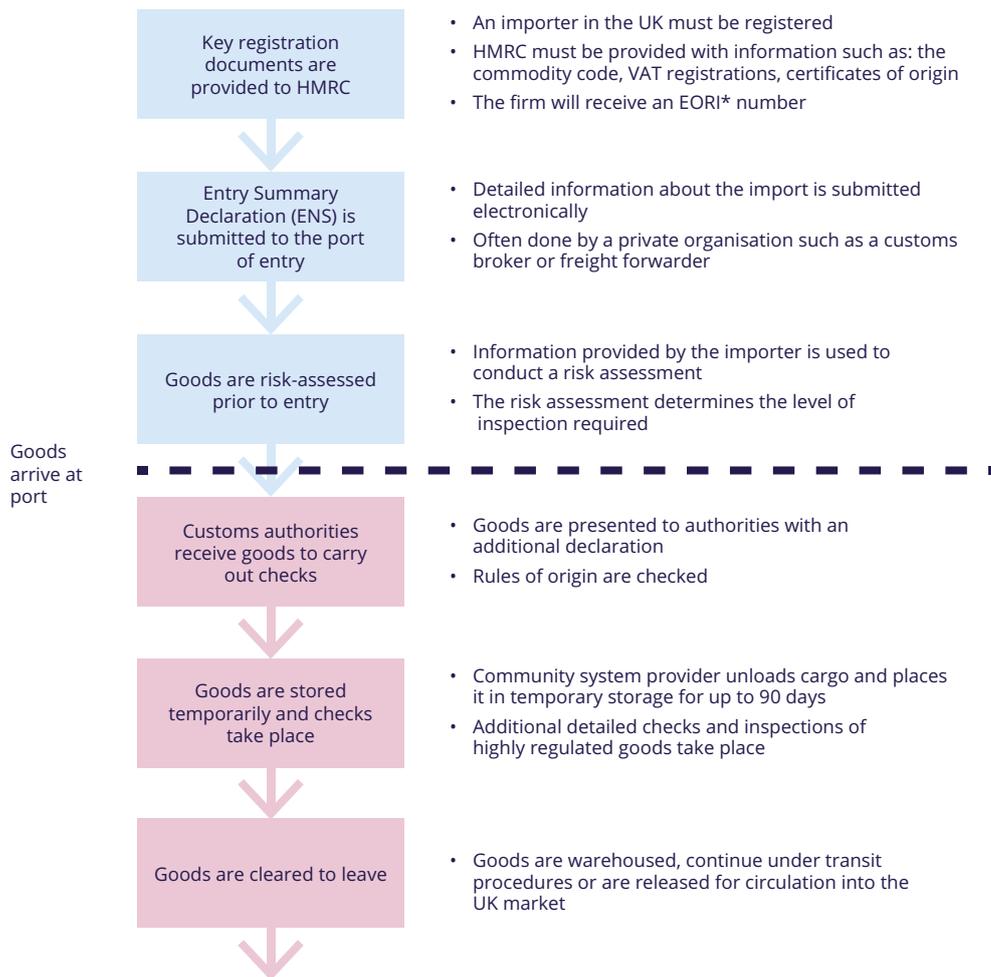
With the Customs Union ensuring that goods moving within the EU do not face tariffs and the Single Market removing 'non-tariff' barriers, trade can pass freely between member states. This level of integration means that trade between member states is not even classified as imports and exports; it is called arrivals and dispatches. It is not seen as international trade, but 'intra-community' trade.

A country outside of these agreements is called a 'third country'. Their trade is classified as imports and exports and its treatment, from tariffs to customs procedures, is determined by the country's relationship with the EU as a whole. The EU has its own common procedures, but preferential treatment can be given to certain third countries based on free trade agreements, bilateral customs co-operation agreements or customs unions.

Regardless of these agreements, trade with a third country is typically subjected to significantly more burdensome customs procedures than trade with a EU country. Figure 1 is a simplified example of a typical third-country customs process. To ensure

compliance, third-country goods can be subject to anything from document checks, to inspection, to actual testing of samples at the border depending on the good.

Figure 1: Import process from non-EU countries ('third countries')

Process step	Details
Key registration documents are provided to HMRC	• An importer in the UK must be registered • HMRC must be provided with information such as: the commodity code, VAT registrations, certificates of origin • The firm will receive an EORI* number
Entry Summary Declaration (ENS) is submitted to the port of entry	• Detailed information about the import is submitted electronically • Often done by a private organisation such as a customs broker or freight forwarder
Goods are risk-assessed prior to entry	• Information provided by the importer is used to conduct a risk assessment • The risk assessment determines the level of inspection required
Customs authorities receive goods to carry out checks	• Goods are presented to authorities with an additional declaration • Rules of origin are checked
Goods are stored temporarily and checks take place	• Community system provider unloads cargo and places it in temporary storage for up to 90 days • Additional detailed checks and inspections of highly regulated goods take place
Goods are cleared to leave	• Goods are warehoused, continue under transit procedures or are released for circulation into the UK market

Goods arrive at port

* EORI = Economic Operator Registration and Identification.

Source: Institute for Government analysis

Underpinning the EU's approach to trade is a common 'customs code'. The UCC is the framework regulation through which customs co-operation between EU member states is achieved. It defines the process and formalities – import–export procedures, data requirements and common risk criteria – that must take place when goods move between EU member states and third countries.

# UK trade has adapted to the Single Market and Customs Union

The UK has adapted to the EU's customs arrangements. Our recent paper, *Frictionless Trade? What Brexit means for cross-border trade in goods*, shows the extent to which the Single Market and EU Customs Union have resulted in highly integrated supply chains across Europe.[7] Manufacturers rely on seamless and rapid movement of goods to complete orders and sustain production. For industries such as the automotive sector and chemicals, the UK is one part of a European supply chain, importing and exporting

parts such as bumpers and exhausts, as well as cars ready to drive. The EU's internal borders are important in ensuring that these supply chains work effectively.

In 2016, £382bn of goods were traded between the UK and the EU as either arrivals or dispatches with minimal or no customs. In contrast, £393bn of UK goods were traded with the rest of the world as imports and exports and were subject to customs checks and controls like those shown in Figure 1.[8]

Dover is a key artery for UK trade heading to continental Europe (see Figure 2). Since the Single Market was created in 1993, it has seen an increase of 150% in the number of lorries using its routes, with over 2.5 million heavy goods vehicles (HGVs) now passing through the port every year. Goods worth £119bn passed through the port in 2015, representing around 17% of the UK's entire trade in goods by value.[9] To facilitate this growth, the port has added new berths, bigger boats and more frequent services, but the area where traffic is processed has remained the same, with no additional capacity for customs checks.[10]

Figure 2: Annual lorry traffic and EU share of trade for selected major UK ports in 2015
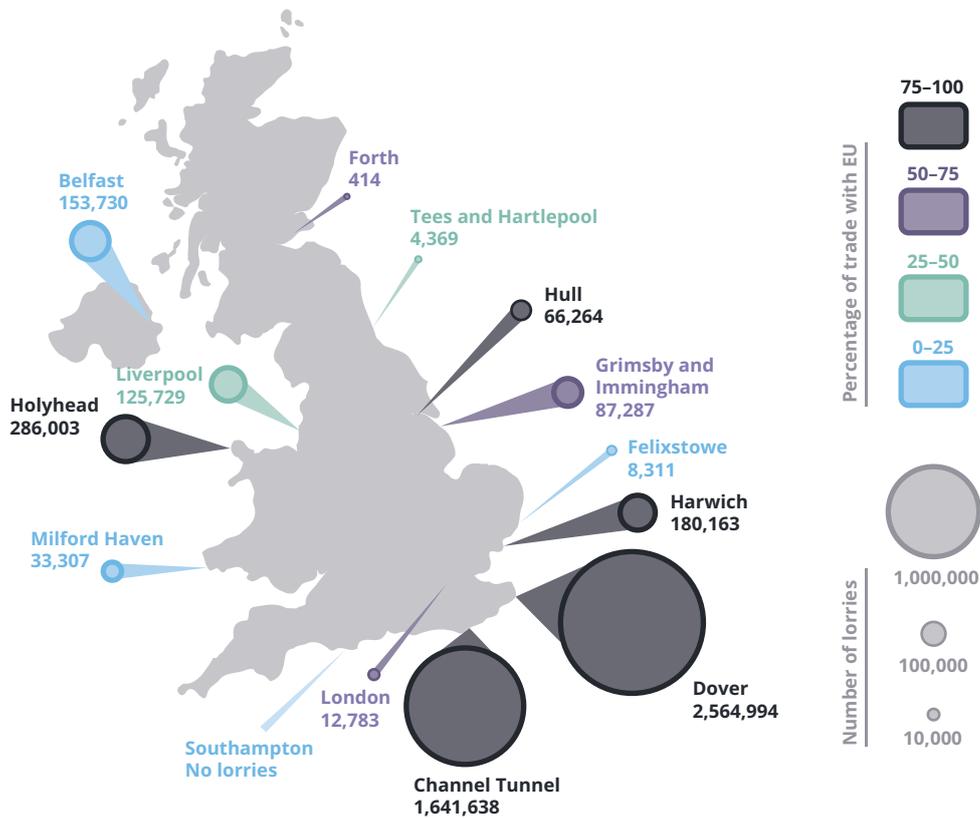
Source: Department for Transport: Maritime and Shipping Statistics

The UK's customs infrastructure has been shaped by these arrangements

Substantial checks on EU goods are not required at the UK border, so customs capacity at each port is scaled to the amount of non-EU trade it processes. The physical infrastructure supporting trade – in terms of both the ports themselves and the

transport links that surround them – has been carefully calibrated to support an ever-growing flow of goods, particularly in lorries and containers (see Figure 3).

Figure 3: Composition of unitary freight traffic passing through major UK ports, by type of freight unit, 2015
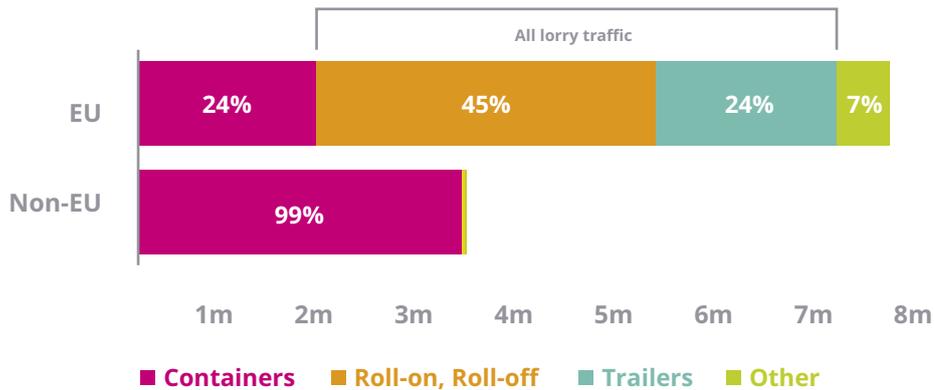
Source: Department for Transport: Maritime and Shipping Statistics

Broadly speaking, there are two types of trade: bulk goods (including coal, natural gas and things like lumber and cement) and unitary. Bulk goods are typically transported in specialised ships, and often require specialised facilities to store and handle them, such as silos, pressure vessels or tanks. In contrast, unitary trade refers to goods transported within a generic unit, such as a lorry, trailer or a shipping container. This includes everything from fresh fish and medicines, to smartphones and screws.

Non-EU unitary trade is done almost exclusively through containers (see Figure 3). These arrive on big ships that are often at sea for weeks. Once unloaded, these containers sit at ports such as Southampton for a period of time until the importer takes them inland; it could be minutes, days or weeks. Customs processing can be done while the containers are at sea, authorities can plan what is arriving and when, and, with containers already sitting around waiting to be collected, there is already 'dwell time' during which authorities can carry out checks. Ports managing container trade are large and have storage capacity on site for containers awaiting checks or onward shipping.

It is a different story for 'arrivals and dispatches' – the UK's trade with the EU. This relies overwhelmingly on a continuous movement of lorries carried by ferries or trains across the English Channel or the Irish Sea. This type of trade, where the goods remain on the back of the lorry and are driven on to a ferry or the Channel Tunnel, is called 'Roll-on, Roll-off' (RoRo). There are more lorry movements between the UK and EU through major ports each year than there are container shipments to or from the rest of the world, and these lorries only account for 45% of all (non-bulk) trade with the EU; trailers that are dropped off and picked up the other side by another haulier account for a further 24% (see Figure 3).[11]

A lorry driver arriving at Dover or the Channel Tunnel en route to France will stop only briefly to show passports and boarding information, and on arrival can be on the French motorway in minutes. These crossings are designed for intra-community trade: they rely on fast-moving flows and as little 'dwell time' as possible. Less than 1% of lorries arriving in the UK through Dover or the Channel Tunnel require customs checks,

but with no facilities at either terminal, that clearance is done six miles away – at a truck stop off the M20 with just 82 parking spaces.[12]

The other major trade route between the UK and the EU is in Ireland. There is a continuous daily flow of lorries across the Irish land border, which has over 200 crossing points with no customs controls. Similarly, RoRo traffic across the Irish Sea between Dublin and Holyhead carries a significant proportion of all the goods moving between the UK and Ireland. As with Dover and the Channel Tunnel, the port at Holyhead has shed most of its customs capacity since 1993, while also seeing increases in traffic volumes.

The Irish land border has unique complications, which we will be exploring in a later paper. But the most-affected ports of entry in the UK are the ports of Dover and Holyhead, and the Channel Tunnel terminal at Folkestone.

ICT systems have also converged and are heavily interdependent

The common approach to customs within EU member states extends to their ICT systems. For intelligence-led customs, rapid sharing of data is critical and so is a consistent approach to risk assessment and the certification of heavily regulated goods.

There are a number of key EU-wide systems that support customs authorities across the EU. From tracking goods and sharing information to providing common approaches and mechanisms, operations at the EU's external border are shaped by these systems.

But the UK also has its own ICT infrastructure, critical to the running of the border system. The backbone of the UK's ICT is a system called Customs Handling of Import and Export Freight (CHIEF), which is responsible for managing import and export declarations. CHIEF is in the process of being replaced by a new system, Customs Declaration Services (CDS), which was designed to meet the EU's new customs requirements in the UCC. But even after this change, there will be a complex web of systems beyond CHIEF and CDS, with specialist functions and interfaces right across government and the private sector.
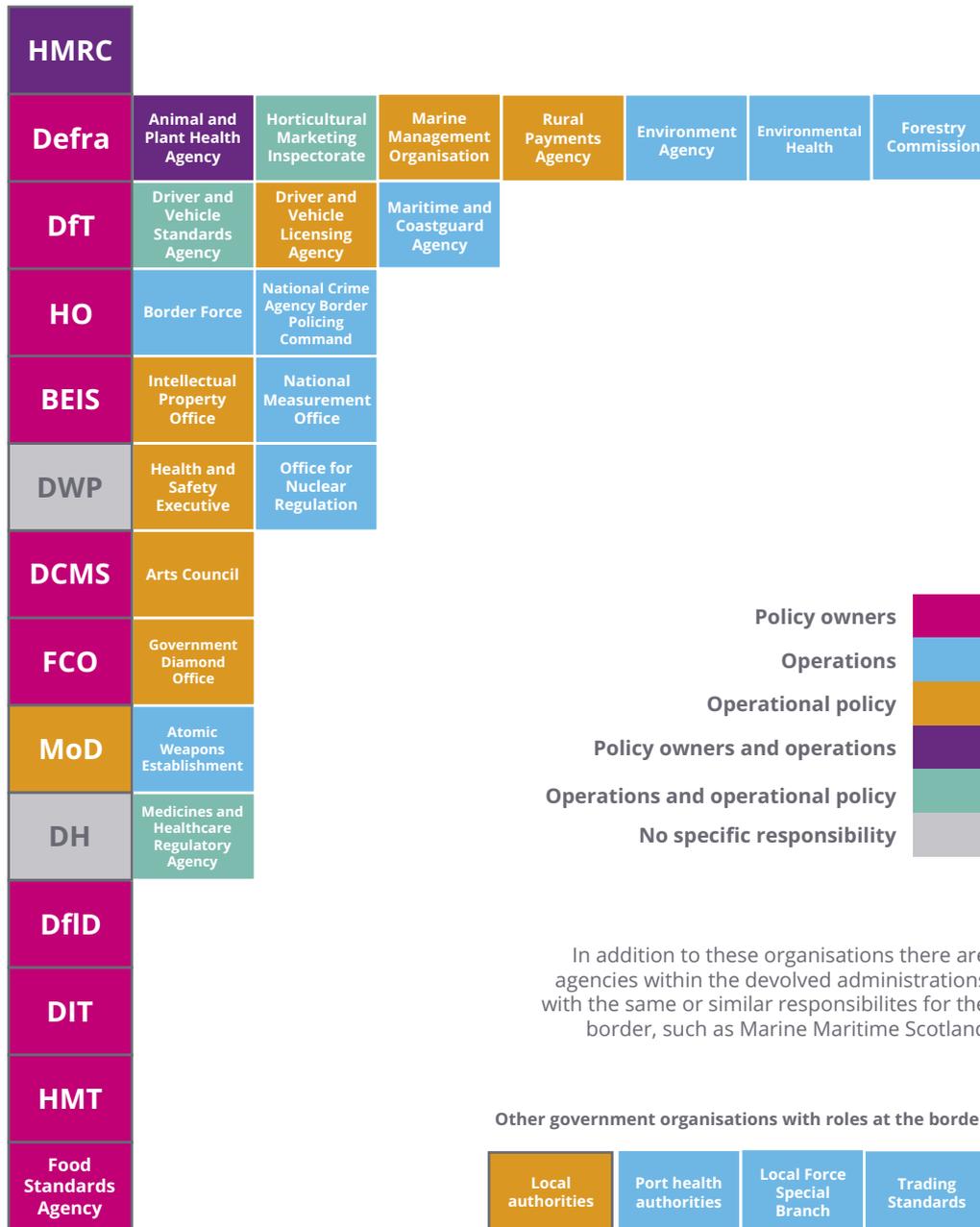
Customs is a major cross-government operation

Responsibility for customs activity spreads well beyond HMRC, the non-ministerial government department responsible for collecting duties and tariffs. While declarations are made to HMRC, it is the Home Office's Border Force that carries out many of the core operational functions at the border. But as the focus of customs has shifted towards complex non-tariff barriers, government has needed more specialist functions to be involved. Customs is now a huge cross-government operation.

There are now 36 organisations involved in either customs operations or policy (see Figure 4). This constellation of government agencies is important for ensuring that there is regulatory compliance at the border, that there are vets for checking any animals, that there are specialists checking plant products or meat and even that there is a role for those who can assess fine art or diamonds. It also includes local

government, with port health authorities and Trading Standards both playing important roles.

Figure 4: Government departments and public bodies with operational or policy roles relating to customs

HMRC							
Defra	Animal and Plant Health Agency	Horticultural Marketing Inspectorate	Marine Management Organisation	Rural Payments Agency	Environment Agency	Environmental Health	Forestry Commission
DfT	Driver and Vehicle Standards Agency	Driver and Vehicle Licensing Agency	Maritime and Coastguard Agency				
HO	Border Force	National Crime Agency Border Policing Command					
BEIS	Intellectual Property Office	National Measurement Office					
DWP	Health and Safety Executive	Office for Nuclear Regulation					
DCMS	Arts Council						
FCO	Government Diamond Office						
MoD	Atomic Weapons Establishment						
DH	Medicines and Healthcare Regulatory Agency						
DfID							
DIT							
HMT							
Food Standards Agency							

Policy owners
Operations
Operational policy
Policy owners and operations
Operations and operational policy
No specific responsibility

In addition to these organisations there are agencies within the devolved administrations with the same or similar responsibilites for the border, such as Marine Maritime Scotland

Other government organisations with roles at the border

Local authorities	Port health authorities	Local Force Special Branch	Trading Standards

See Appendix B for list of full names for Government departments

Source: Harra J (2017) Letter to the Rt Hon Andrew Tyrie MP[13]

The private sector also plays a critical role

This complex web of organisations is matched in the private sector.

While government is one piece of the customs puzzle, an exporter or importer needs to work with a number of private sector organisations to get their goods to or from other countries (see Figure 5). Freight forwarders, hauliers, customs handlers, customs clearance agents, community system providers, port operators, ferry companies and others all play important roles in the movement of goods between countries.

Figure 5: The division of customs roles between the Government and the private sector in regulating and supporting trade in goods
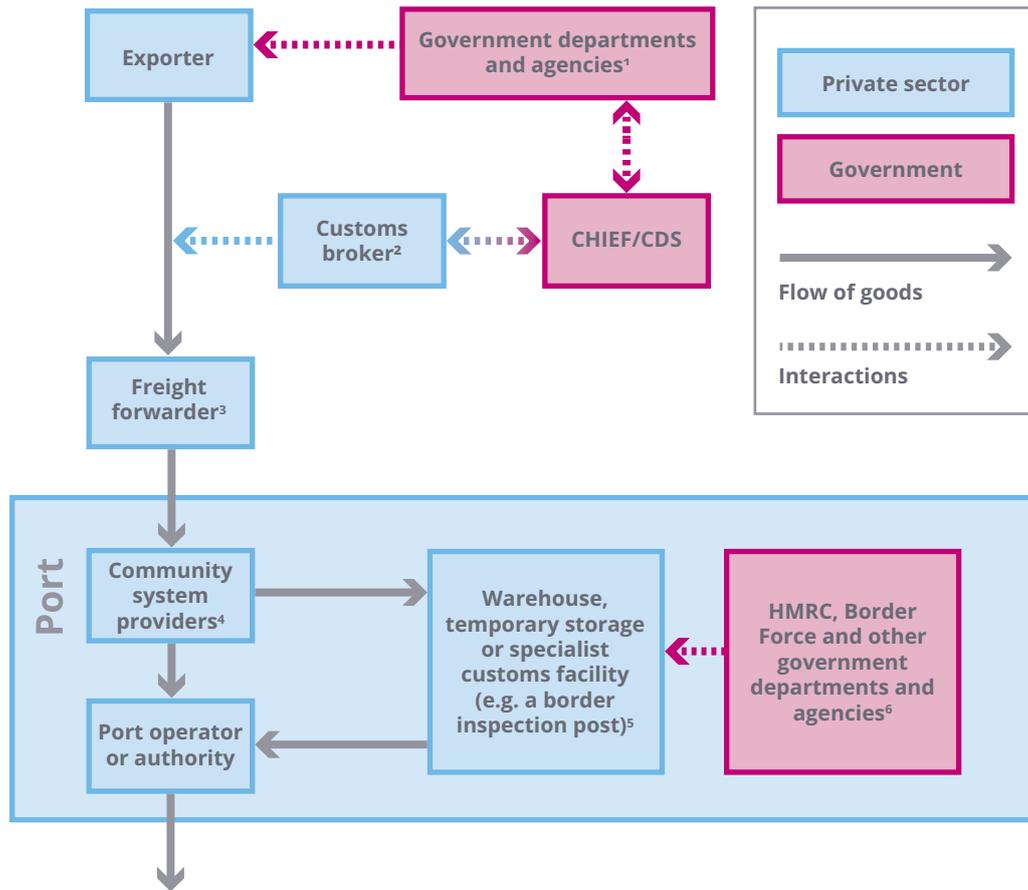
1. Government departments and agencies fulfil many customs-related roles away from the border, both operational and policy-related. These include setting and enforcing regulations, inspecting factories and farms, issuing licences, registering businesses and conducting risk assessments for different products.

2. Customs brokers handle export declarations on behalf of firms. They relay information to government IT systems such as HMRC's CHIEF/CDS for a fee.

3. Freight forwarders are logistics firms that handle the transportation of goods for some or all of their journey. They may also provide services similar to a customs broker.

4. Community system providers are specialist firms that record and track the movement of goods within ports. Their work is supervised by Border Force, which has ultimate responsibility for security and the control of freight as it crosses the border.

5. Goods may require temporary storage or longer-term warehousing, or may be diverted to a specialist facility, such as a border inspection post for food products.

6. There are 13 government departments and agencies that have operational roles at the border, either checking goods – which may involve contracting private specialists such as vets to perform inspections – or in roles relating to security, logistics or revenue collection.

Source: Institute for Government analysis

Within the UK, private enterprise provides many customs services and owns much of the major infrastructure, such as ports (see Figure 5). The UK has a system of fully privatised ports.[14] These differ from other port models in the fact that the Government has no ownership of the port infrastructure. This can make it more difficult for the Government to control the development of these ports. The ports and all the other private sector organisations are set up to facilitate trade and help importers and exporters to meet the current rules and regulations governing international trade. These private firms are central to the successful delivery of customs.

3. What could customs look like after Brexit?

The UK Government wants future customs to be 'as frictionless as possible'

In its position paper on future customs arrangements, the UK Government has said that it wants to ensure that cross-border trade with the EU is 'as frictionless as possible', seeking a new customs arrangement within a free trade agreement.[15] As our report, *Frictionless Trade? What Brexit means for cross-border trade in goods*, argues, there is no pre-existing model of relationship with the EU that would completely mitigate disruption and the need for border checks.[16]

The Government has put forward two options for future customs arrangements, one that attempts to minimise friction and another that attempts to remove it altogether. The first option, 'a highly streamlined customs arrangement', would use 'tried and trusted' processes along with international precedents to try to deliver a border that is light touch, but it would still be a step change in customs administration for goods coming from/going to the EU. The second option, a more speculative 'customs partnership', proposes having no UK–EU border while allowing the UK to leave the Single Market and strike free trade deals. As the Government notes, this would be 'unprecedented as an approach and could be challenging to implement'.[17]

But the future of the UK–EU border depends as much on the position of the EU27 as it does the UK Government. The European Parliament's lead co-ordinator on Brexit, Guy Verhofstadt, has referred to the proposal for no border as 'a fantasy' and the European Commission has restated Michel Barnier's position that 'frictionless trade is not possible outside the Single Market and EU Customs Union'.[18]

Ultimately, an agreement will need to be negotiated by the EU and the UK and the detail of the deal they strike will determine the customs arrangements, and level of friction, for future trade between them.

The Government's position paper offers an indication of its thinking,[19] but it does not offer any certainty. The paper also does not cover the UK's position on key parts of the deal that will be critical in determining how the UK border looks after Brexit.

But until a deal is agreed, the details will not be clear...

The outcomes of the negotiations still range from 'no deal' to a bespoke arrangement that could, theoretically, maintain most elements of the status quo. All of these arrangements would entail a degree of friction relative to the existing system of trading as a member of the EU. But the scale of the changes required and the implementation challenges these changes would create vary significantly.

Trading relationships tend to focus on four key objectives, which help to reduce checks at the border:

1. Reducing or eliminating tariffs.

2. Minimising non-tariff barriers through regulatory equivalence or mutual recognition.

3. Limiting administration for importers, exporters and customs authorities at the border.

4. Fostering consistency, co-operation and communication between customs authorities in different nations.

Any 'deep and comprehensive' free trade agreement would look to make significant progress against all four of these pillars. However, the Government's position paper on future customs arrangements focuses on the third and fourth objectives almost exclusively.[20]

A free trade agreement is not the only route to minimising friction: there are other, less ambitious, agreements that can reduce checks required at the border. For example, bilateral agreements, such as on customs co-operation, focus on improving alignment between two countries in specific areas that affect friction at the border. That could mean sharing data and information between authorities, or it could mean recognising that product standards in a certain good are equivalent in each country and so checks at the border can be reduced.

Almost all of the EU's major trading partners – Canada, Japan, South Korea and the United States – have some form of agreement that aims to facilitate trade in customs and increase security co-operation. However, the different agreements between the EU and its major trading partners reduce but do not remove friction. Any UK deal starts from a point of no friction and looks to limit the introduction of checks and border activity. This is unlike any other deal the EU has negotiated with a third country.

Nonetheless, there are the same key elements of any deal that will determine how smoothly customs operates post Brexit. For a list of specific examples, see Appendix A.

It is important to keep tariffs low, but most friction comes from other forms of trade barriers

Both the major political parties in the UK have stressed that they think it is important to ensure that trade continues tariff-free after Brexit. In her Lancaster House speech, Theresa May emphasised that any deal the Government sought would include "tariff-free trade with Europe", while Jeremy Corbyn has repeatedly stated that what Labour wants is "tariff-free trade access to the European market".[21, 22] Tariffs would impose a significant burden on importers and exporters as well as requiring significant new capacity at the border. And customs would need to check that duties have been paid correctly for the good being transported. But tariffs can be more straightforward to reduce or eliminate than other causes of friction.

Customs co-operation can help to minimise the administrative burden on traders

The Government's paper on future customs arrangements is focused predominantly on building a deep customs co-operation agreement.[23] These types of agreement aim to align border processes, facilitate information sharing between customs authorities and reduce some of the documentary burden for traders. For example, continued membership of the Common Transit Convention, which simplifies border crossing for

goods in transit and involves non-EU countries, would give the UK access to key EU systems and limit the paperwork for traders who operate across numerous borders.

Information sharing is the key enabler of modern customs. The UK currently benefits from access to more than 20 EU systems, which do everything from tracking the movements of goods and vehicles to storing risk profiles for goods and producers from around the world, and the UK shares its own data as part of this. Our customs systems, such as CHIEF and CDS, are designed to operate with ready access to these data. A deal could see the UK granted permission to continue to use at least some of the critical systems. No deal, on the other hand, could require the UK to build and integrate new systems, populating them with data from scratch.

But removing tariffs and aligning customs systems are not sufficient to deliver frictionless trade. Customs is as much about regulation as it is about tariffs, computers and paperwork.

There are key parts of the deal relating to regulation that will determine what customs will look like after Brexit

Converging regulations and product standards for goods has led to simpler customs across the EU. This process builds trust that goods from member states are either compliant with the rules of the Single Market or equivalent to domestic products and so require no special scrutiny.

Customs exists to ensure that any differences between imported goods and domestic standards do not introduce risk to the market or supply chain. Broadly speaking, the greater the variance in two countries' standards and regulations, the more checks that take place on goods being traded.

Agreements often try to remove barriers to trade by aligning regulatory regimes. They can do this if parties agree to share equivalent standards, or acknowledge that the relevant authorities in each nation can conduct approved checks, ensuring that standards are being met and allowing customs authorities to waive certain checks at the border. But formal agreement is essential. If one country's regulations mirror another's in practice, but there is no formal and binding agreement, the benefits of alignment cannot be realised. Their goods receive no preferential treatment at the border. If the UK and EU diverge on standards after Brexit, friction at the border will be introduced; the greater the divergence the greater the potential for friction.

The Government's paper on future customs arrangements does not cover regulation and its potential as a source of friction. Its position paper on Northern Ireland and Ireland[24] does recognise the challenge of regulation specific to the land border, particularly in 'agri-food', but the issue is not unique to Ireland. The agreement reached between the UK and EU on the issue of regulation will have a big impact on customs checks all over the country, particularly in areas such as agriculture.

The rules on agri-food currently applied in the UK mean that between 20% and 50% of shipments of beef and lamb imported from outside the EU must be checked by a food health agency at the border. However, the UK is also a party to agreements such as the one between the EU and New Zealand, which exempts most checks. The EU–NZ deal only requires 2% of lamb shipments to be sampled at random. Which shipments

are randomly sampled is determined by HMRC and relayed to freight services agencies at ports and airports via CHIEF.

After Brexit, the default position on how many shipments from the EU, of any type of goods, will require checks is undefined. This is particularly important for agri-food, which represents a significant fraction of all trade by volume, and tends to require more checks than other forms of goods. Currently 70% of the UK's food imports by value come from the EU and are not subject to checks. In the absence of a deal the UK could unilaterally continue allowing EU goods to enter the UK without regulatory checks, on the basis of trust. To do so is within the UK's gift as an independent nation. This may be the favoured approach as any arrangement which sees an increase in checks will place substantial new burdens on the UK's border operations. In particular, shipments of agri-food which require a Border Inspection Post for checks and – unlike most other goods – cannot generally be cleared inland due to the risks of spreading pests and diseases while in transit.

There are similar issues for other goods. Deals that limit regulatory divergence require smaller shifts in practices and infrastructure. The further apart the UK places itself, or the less it agrees to share or co-operate with the EU's existing trade frameworks, the more customs capacity we will need to develop.

The UK must decide what it is going to do to prepare for 'no deal'

Now that Article 50 has been triggered, preparation and planning for 'no deal' must take place.

'No deal' represents the most extreme change in the shortest time, so it needs to be planned for

Leaving the EU with 'no deal' would introduce friction that is greater than that faced by any of the EU's other major trading partners. For UK customs, it would involve the greatest amount of change in the least amount of time, with a huge increase in demand on capacity and capability at the border. New systems, staff and infrastructure would need to be in place for 29 March 2019.

Under 'no deal', our ports could 'grind to a halt'

HMRC estimates that the total number of customs declarations will undergo a fivefold increase when the UK leaves the EU.[25] But the increase in customs checks will vary significantly between ports, depending on the proportion of their trade that comes from or goes to the EU. Ports such as Dover, where over 99% of all trade is with the EU, would see increases in customs declarations of over a hundredfold.[26] The major concern on the UK side of the border is that an increase in declarations is linked to more and longer delays. The Road Haulage Association has said that, in the case of 'no deal', it 'expect[s] that movements will rapidly grind to a halt as vehicles back up waiting to be processed by customs authorities'.[27]

Without an agreement between the UK and the EU, if a lorry needs checks it would 'have to wait while each separate pallet is checked, requiring extensive investment in parking facilities at UK ports... or UK port towns'.[28] The scale of change for trade through Dover, Holyhead and the Channel Tunnel would be significant. The ports,

designed for an almost free flow of goods, would have to accommodate documentary checks, which currently add up to three hours to journeys, and the space and time for the inspection of goods, which add a further five.[29]

If Dover, Holyhead and the Channel Tunnel were to 'grind to a halt', the impacts would be felt across the UK. For the Channel Tunnel alone, the economic footprint extends across the whole country. For example, 20% of all exports (by value) from the West Midlands – including £2.2bn of iron, steel and metal products – passed through the Channel Tunnel in 2015.[30] Businesses in every region of the UK trade via this route; even Scotland saw 5% of its exports (by value) shipped through the tunnel.

In a 'no deal' scenario the UK would have some flexibility but cannot just do what it wants...

Even outside the EU, the UK's ability to unilaterally control its borders with respect to trade is constrained. The Government has committed to being a 'strong supporter of the rules-based global trading system'.[31] As a result, though there is scope for flexibility to unilaterally apply a lighter-touch regime, the UK would be unable to liberalise its borders for EU imports completely.

First, under World Trade Organization (WTO) rules, unless the UK is prepared to drop tariffs for all imports, it will have to collect duties on EU imports.[32] As the House of Lords' *Trade in Goods* report notes, collecting tariffs would 'require customs posts and inspections, where currently there are none'.[33]

Second, as a member of treaty organisations such as the WTO and as a signatory of the TBT (Technical Barriers to Trade) and SPS (Sanitary and Phytosanitary) agreements, the UK would be bound by the principle of non-discrimination when it comes to applying regulatory checks. The SPS agreement prohibits the application of different requirements where 'the same or similar conditions prevail, unless there is sufficient scientific justification for doing so'.[34] The UK could plausibly argue that if there is no increase in risk to the public there is no justification for significantly increasing checks. It would be down to other third countries to submit challenges to the WTO if they wished to dispute this.

In the short term, it would be in the UK's gift to decide whether to introduce regulatory checks for EU imports. But the EU's own rules would not allow similar lenience to be applied to exports from the UK into the EU. That asymmetry may be politically difficult.

Moreover, even though the UK could decide not to conduct regulatory checks for EU goods, it would still have to have a means of distinguishing EU goods from non-EU. Since we would no longer be part of EU systems, there would need to be a way to check the origin of goods.* Consequently customs clearance would be required for all EU traffic.

If the UK were overwhelmed by the volume of increased checks and decided to unilaterally apply a light touch regime, there could be consequences for UK exporters. The border plays an important role in ensuring that unsafe food or appliances do not make it onto the UK market, and the level of checks will affect how other countries

* If we maintained the EU's VAT central clearing process then the invoice could be the proof of origin – no other paperwork would be required. However, under no deal we would cease to be a part of the EU's VAT regime – see Appendix A.

view the UK's exports. A UK manufacturer might face greater checks when it sells products or parts abroad if those countries suspect that its supply chain could be compromised by a less secure UK border.

What happens on the EU side of the border matters too, and the UK would have no say on that

The EU cannot unilaterally revoke its obligations to secure its borders without contravening its own laws and those of international treaties, so in the event of the UK leaving the EU with no deal, UK exporters would likely face burdensome checks when goods entered the EU.

In June 2015, more than 7,000 lorries were parked on the M20 in Kent, unable to pass through Dover. Businesses lost £21 million (m) worth of stock and the Kent economy lost £1.5m a day. These delays were a result of a strike on the French side of the border. Preventing disruption requires both sides of the border to be prepared for changes and facilitate movement. The UK is therefore reliant on its European partners to avoid chaos at the border.

A transition can provide valuable preparation time, but different transitions have different demands

The Government's position papers on future customs arrangements[35] and on Northern Ireland and Ireland[36] confirmed the UK's desire for an interim arrangement on customs. It is the clearest statement to date that the Cabinet is seeking a transitional deal with the EU that can offer certainty to business, minimise disruption at the border and, importantly, allow time for implementation.

This news will be welcomed by many outside government. Both the Confederation of British Industry (CBI) and the Institute of Directors have called for clarity and certainty, and the CBI has called for a transition that 'replicates as much of the economic relationship [as] is in place at the moment'.[37, 38]

The Government's paper on future customs arrangements suggests that it is listening. It indicates that the Government will seek to negotiate a transitional arrangement that retains the status quo, at least in customs, for a 'time-limited period'. It wants to explore options that ensure that 'businesses and people in the UK and EU only have to adjust once to a new customs relationship'.[39]

To achieve this, the Government has suggested that it would retain a 'close association with the EU Customs Union',[40] which could include the formation of a new customs union for a time-limited period. The UK's relationship with the Single Market, Common Agricultural Policy and Common Fisheries Policy will also be a key factor in the level of friction at the border. As we have shown in the previous section, customs arrangements are as much about regulation and standards as they are about tariffs, computers and paperwork.

The only 'off-the-shelf' transitional model capable of delivering the continuity wanted in Westminster looks very similar to applying all of the rules and submitting to the constraints of EU membership but leaving the political institutions, or, as the EU has called it, a 'time-limited prolongation of Union acquis'.[41]

Anything that does not ensure continuity in customs will require changes to be implemented, both at the border and for businesses. The Government is rightly looking to limit the number of changes required, but leaving the Single Market could restrict its ability to do so.

The length of any transition period is unclear

The exact customs arrangement that will be in place for any 'time-limited' transition will need to be negotiated and agreed with the EU27, as will the length.

Reports have suggested that there is not yet a consistent position in the Cabinet on how long any transition might be, but the position paper on future customs arrangements states that it 'needs further consideration and will be linked to the speed at which the implementation of new arrangements could take place'.[42] The European Parliament has passed a resolution that says that any transitional period should last no more than three years.[43]

Until there is agreement on transition, there will be continued uncertainty, not only about what is required for customs post Brexit but also about when it will be required.

The next chapter considers some of the challenges facing the Government as it looks to undertake the task of implementing its post-Brexit customs arrangements.

4. What are the key implementation challenges?

Policy and legislation

This section looks at the key policy questions facing Whitehall and how the Government should carefully manage legislation to avoid the cliff edge.

It is not clear what customs will look like after Brexit, or when any changes will need to be made. The Government must be clear on the scenarios it is preparing for

As we have set out in previous chapters, the future UK–EU relationship will determine the level of 'friction' at the border for goods being imported and exported between the two. Customs processes on each side will depend on exactly how 'deep and comprehensive' any deal is.

But customs is a cliff-edge issue and, without a transition period, any changes will need to be in place for day one of Brexit. Agreeing a transitional deal, or 'implementation period', does not in itself delay the need for change, however. Any type of transition that does not preserve the status quo will require adaptation.

The uncertainty surrounding the detail of the deal and transitional period creates a challenge for the Government. It must clearly identify the possible outcomes it is working towards and the extent to which it will prepare for them.

But regardless of the future relationship with the EU, Brexit means that the UK will need its own 'customs code'. It should copy the Union Customs Code

At the moment, what happens to goods as they arrive at the UK border is determined by the UCC.[44] The UCC is a set of regulations outlining the rules and procedures for customs authorities throughout the EU. It tells them how to treat goods that arrive from outside of the EU, the formalities of checks and documents required. With no customs deal, all exporters would need to complete both a Single Administrative Document (SAD) and an Entry Summary Declaration (ENS), with additional specialist documentation required for highly regulated goods, transport permits and insurance certificates.[45] The SAD alone consists of 54 boxes with eight parts, which must be completed and submitted for every declaration.[46]

Leaving the EU gives the UK freedom to develop its own customs code in order to monitor and manage the flow of goods in and out of the country. It will be free to set import–export procedures, data requirements, risk criteria and standards. The question for HMRC is whether it should use this freedom to diverge from the existing code.

The UCC came into force in May 2016, with a four-and-a-half-year phased implementation running until the end of 2020. It is the basis of the current UK customs system and it set the requirements on which HMRC's new ICT system, the CDS, has been developed. The UCC has received some criticism in the UK for the lack of business engagement in its design and the introduction of financial guarantees that are

required for certain goods/procedures;[47] but it gives customs authorities greater flexibility to suspend duties, improves data and incentivises the EU's trusted trader scheme called the Authorised Economic Operator (AEO) scheme.[48]

From inception to implementation, the UK has been a supporter of the UCC and sees it as meeting its needs and ambitions.[49] There is little to suggest that we would benefit significantly from using Brexit as an opportunity to design something substantially different. In fact, there is a strong incentive to prevent divergence – synchronising the UK's and EU's customs administrations would create the best basis for minimising friction in trade and support trusted traders. However, for these benefits to be realised, the future relationship will need to include mutual recognition between the EU and UK customs codes. The National Audit Office has said that if the UK diverges from the UCC, the new ICT system being delivered in HMRC will no longer be consistent with UK customs policy, and preparedness for day one will be at risk as a result.[50]

The Government has suggested that continuity in customs is one of its priorities, and should ensure that it replicates the UCC rather than looking to diverge at this point.[51] But, before a new code can be put in place, regardless of how similar it is to the UCC, Parliament must pass critical legislation to give ministers the powers that, under EU membership, currently sit in Brussels.

Legislation is required to avoid a cliff edge and a legal hiatus – ministers and Parliament need to work together to ensure that the necessary legislation is passed in time

The two-year Article 50 window means that Brexit legislation needs to run alongside negotiations – despite the complex interdependencies. The legislation will need to be in place before the date of withdrawal from the EU and before the future relationship is agreed. As a result, any bill will need to give the Government scope to adapt to the outcome of negotiations, requiring significant flexibility. And the most likely mechanism for providing it will be broad statutory powers for ministers – so-called Henry VIII powers – to allow the Government to adapt as necessary to whatever emerges from an agreement.[52]

The Government has already announced a customs bill in the Queen's Speech to give it the necessary powers.[53] As with other Brexit legislation, this bill is likely to prove controversial, but if the legislation fails to pass there will be a legal hiatus on the day after exit from the EU. Any customs provisions in the withdrawal or future relationship agreements will also require ratification in the UK and the EU.

To smooth the passage of the bill, the Government must engage Parliament early and offer clear and detailed information about its intention for the legislation. The white paper on customs that is promised for the autumn, along with early engagement highlighting the critical nature of the legislation, could reduce the likelihood of a legal hiatus at the end of the Article 50 period. Both ministers and Parliament must be clear that customs legislation is essential in avoiding a cliff edge. They must work closely to prevent potential disruption.

> **Recommendations – policy and legislation**
>
> 1.   HMRC should replicate the Union Customs Code as far as possible, as it has indicated it will do. The UK's existing customs system is designed around this and keeping it will help to ensure continuity. Any changes that the Government wishes to make to the customs code should be done in the longer term.
>
> 2.   HMRC needs to publish a detailed white paper on its proposals for customs before introducing legislation and ensure that Parliament is well informed about its plans for customs policy and legislation.

Technology

This section looks at the essential ICT work under way to prepare for day one and the viability of 'new technology' as a solution to Brexit border problems. It also highlights the importance of continued access to key EU systems.

Customs currently depends on an old system that was supposed to have been scrapped five years ago

Technology already underpins much of how modern customs functions. At the heart of the UK's current customs ICT is HMRC's Customs Handling of Import and Export Freight (CHIEF). This system was built by British Telecommunications in 1989. Its 'retirement' was announced in 2010, with a new, upgraded version to be implemented in 2012. But the project failed to deliver. The design of the new system had not been finalised by early 2012, at which point HMRC confirmed that there would be a delay. Then in June 2013 it was announced that the project would be mothballed in favour of a 'CHIEF 2' replacement programme – Customs Declaration Services (CDS).

Work on CDS began later in 2013, with its design and functionality based largely on the UCC. The UCC supports greater use of technology in areas such as 'self-declarations'. A new ICT system was needed, because HMRC's CHIEF system is not capable of meeting the new EU standards.

The critical ICT system needed for Brexit is 'in doubt'

Brexit has thrust these ICT systems into the spotlight. HMRC is still reliant on CHIEF, which can process about 60 million declarations a year, and CDS was halfway through a five-year delivery programme at the time of the vote to leave the EU, based on designs and requirements set before the vote.[54] CDS was designed to manage volumes of up to 150 million declarations.[55] It is likely that on exit from the EU, HMRC will need ICT capable of processing an estimated 200 million more declarations a year.[56] Both systems running side by side may be required to meet capacity requirements for customs declarations alone.

But delivery of CDS is now facing 'significant issues'. It received an 'Amber/Red' rating from the Infrastructure and Projects Authority in January 2017, and a rating of 'Amber' in July. Andrew Tyrie, chair of the Treasury Select Committee at the time, said that confidence in the project had collapsed, and a recent National Audit Office report shows the extent of the risks and issues being faced by the programme.[57] Due to deliver in January 2019, just a few months before the Article 50 period ends, any delay to the project would have a significant impact on the UK's preparedness for day one

outside the EU. This timeline is some 21 months shorter than the original plans before Brexit, and the National Audit Office suggests that, as a result of exit, HMRC will have had around three years less time to develop, test and roll out the new system.

Delays are not uncommon in major government ICT projects. But CDS contingency plans are not yet in place, and are expected to rely almost solely on CHIEF, which will be a 30-year-old system managing an estimated fivefold increase in volume. HMRC is planning a technical upgrade to CHIEF to 'increase stability and capability', but the unsuccessful 2010–12 upgrade programme shows that even this is likely to be a challenge.[58]

If CHIEF cannot cope with the volume, and the current CHIEF fallback measures are put in place, ports of entry will largely come to a stop. Fallback measures would mean that only a small subset of goods will be processed by customs authorities, such as 'life or death consignments', perishables and live animals. But even those that can pass through the border would need to navigate a paper-based customs system without any of the modern advances or technological support.

Government must prioritise delivery of CDS in its current form – the focus should be on ensuring that the basics are in place

With new requirements likely to emerge as the shape of the new UK–EU customs arrangement becomes clearer, and delivery of a new customs system already in progress, there will be a temptation to 'tinker', introducing additional functionality to CDS in order to reduce friction or potential disruption once the UK leaves the EU.

But, introducing changes in scope increases delivery risk. With delivery of CDS already in doubt, and its rapid deterioration to an 'Amber/Red' rating from the Infrastructure and Projects Authority just months after the Brexit vote likely to be a result of huge changes in capacity requirements, the Government must avoid making further changes. The most recent 'Amber' rating shows improvement, but the programme is unlikely to withstand further changes to requirements.

Operators of the web of private sector systems that interface with government will also need to adapt to any changes. These private sector organisations are designing their systems to be compatible with CDS. If the Government decides to tinker, it needs to give those organisations the information and time to reflect on the changes. With around 8,700 users and intermediaries affected by the system,[59] one small change by government could mean that thousands of these users and intermediaries need to make changes in order to accommodate it.

The priority now is a CDS programme that is operational for day one. The design of the system should be 'locked down', preventing any change that could impact overall delivery and any change that is non-essential to day-one operations. The rest of the customs landscape will need to adapt to what is deliverable with the ICT, rather than expecting the ICT to quickly adapt to suit the needs of the wider customs landscape.

Some ministers are placing a lot of faith in innovative new technology – this is not viable, at least in the short term

Digital technology and a 'virtual border' are often touted as the guarantor of seamless, frictionless trade. Secretary of State for Exiting the European Union, David Davis, told the Exiting the European Union Committee that the Government intended using

technology to ensure control of goods without border posts (particularly in the case of Northern Ireland, but Davis expected it to be used in cross-Channel trade as well).[60] The Committee was also told that such technology was still in the design phase, and that there was 'quite a lot of design work to do'.[61]

There is potential for new ICT. Sensors, scanners and using data to target interventions and manage risk are all used in some customs systems around the world and are likely to become increasingly important to modern customs. But in the short term, they are not a viable solution to the Brexit border question.

The design and delivery of such technology on this scale and of this importance are likely to warrant inclusion in the Government Major Projects Portfolio (GMPP), which is 'composed of the largest, most innovative and highest risk projects and programmes in government'. Recent GMPP ICT projects have a duration of, on average, five and a half years from start to finish.[62] By the time the UK formally leaves the EU in March 2019, it would have only had two years and nine months to design, build and implement any new technology.

Major ICT projects, in government and the private sector, are risky. One in four of the ICT projects in the GMPP are rated either 'Red' or 'Amber/Red' ('Red' means that successful delivery appears unachievable, with major issues that do not appear to be manageable or resolvable; 'Amber/Red' means that successful delivery is in doubt, with major risks or issues apparent and urgent action required). This high level of risk contributes to the extension of delivery timelines. Based on the current batch of GMPP ICT projects, every year they have spent in the portfolio has seen their expected delivery date delayed by 186 days.

Our work on Universal Credit shows the danger of unrealistic timelines and unclear requirements to major project delivery;[63] and both the Public Accounts Committee and the National Audit Office have reports containing similar lessons. In the Brexit context, these dangers are simply the reality of the constraints on government.

An innovative new ICT programme in this environment is very unlikely to deliver what is needed, when it is needed. The Government should not rely on undefined modern technology to solve its knottiest problems.[64]

Government's immediate focus should be on securing continued access to the EU's customs systems

This wider customs landscape includes a lot more government ICT. CHIEF and CDS are the key customs systems, but they are just two of 57 that make up HMRC's border ICT.

Of these 57 systems, it is expected that 25 will require changes in order to prepare for exit from the EU[65] – systems that, for example, hold the information for non-EU traders, support trusted traders, carry out risk profiling and quality assurance, or track goods as they move between countries.

Updating these systems will be a big task in and of itself, adding to the ICT delivery ask for HMRC, which, it should also be said, is also delivering Making Tax Digital, one of government's flagship digital transformation programmes, and experiencing issues of its own.

But the scale of change required could be significantly greater. Around a half of those 25 systems are either EU-wide or require access to EU-wide systems in order to function. The Government could need to build a number of new ICT systems from scratch to replace functionality currently provided at the EU level. It could also no longer rely on the years of historic data in those EU systems that would help to inform and improve the authorities' decisions on what to check.

Limiting the burden on an already stretched programme of ICT changes required for exit from the EU should be a priority for the Government. Access to the EU's customs systems, through customs co-operation, should be a key objective in the negotiations. For some systems, there is a precedent that suggests the UK should be able to gain access.

The New Computerised Transit System (NCTS) is a particularly critical EU system. It is part of the Common Transit Convention and allows signatories to submit transit declarations and bond money electronically, as well as allowing authorities to track consignments across different countries. It reduces the cost of customs procedures and the number of trucks queuing at the border, supporting paperless customs clearance and a faster flow of goods.[66] The system can be accessed by all parts of the Common Transit Convention, which includes European Economic Area (EEA) states, Macedonia, Serbia and Turkey, and should be a priority area for the UK in negotiations.

Not all EU customs systems can be accessed by non-member states. For some, a situation where the UK could continue to use them would be unique – although not necessarily unachievable. Contingency work is being undertaken for these systems, whether it is through commercially available alternatives or simply planning operations on the basis that the UK loses access.

Recommendations – technology
1. HMRC needs to prioritise delivery of Customs Declaration Services (CDS) in its current form, ensuring that the basics are delivered before adding new functionality.

2. Ministers must recognise that 'innovative, new ICT' is not a viable option in the short term and focus on upgrading existing systems to cope with Brexit.

3. The Department for Exiting the European Union should prioritise continued access to EU customs systems during the negotiations and throughout any time-limited transition, in particular the EU's New Computerised Transit System (NCTS).

Customs infrastructure

This section covers the constraints that limit the potential for expanding customs infrastructure and the possibilities for shifting the emphasis of customs activity away from the border.

There isn't enough time to build new infrastructure
Building new physical infrastructure at the border will take time. Changes in trading arrangements with the EU will require increased capacity to carry out checks. There is likely to be a need for increased capacity at ports for customs, new border posts, new

roads, new lorry parks, new warehouses and new service stations. But the time between now and Brexit in March 2019 is too short for major change.

For example, Kent County Council is already working on an M20 lorry park, being developed as part of 'Operation Stack' (see the later section 'A canyon, not a cliff edge'), and it will take nine months to complete once building begins. But, like any infrastructure project, there is a long planning and approvals process before ground is broken, with proposals for the lorry park dating back to 2015. Even now, construction is on hold after a judicial review.

Major changes at ports will also take time. The Port of Dunkirk, in 2014, outlined a four-year strategic plan worth €250m that would expand harbour and customs capacity at the port. It included a new border inspection post, which look 11 months to build, cost €2m and increased capacity for checks from 1,000 to 5,000 consignments per year.[67] This was followed by a new car terminal, which opened in March 2016 after over a year of construction at a cost of €14.9m.[68] A new 3,000 square-metre logistics warehouse opened in July 2016, costing €1.5m.[69] For UK ports looking to make changes that are significantly greater but without the clarity on exactly what will be required, these timescales and costs show that March 2019 is a milestone that looks unachievable for major change.

The Port of Calais is undergoing an even more ambitious expansion. The 'Calais 2015' project was designed and developed between 2009 and 2014, with phases of public debate and inquiry, planning and tendering.[70] Aiming to increase capacity, improve transport links and add storage capacity, the expansion plan has a total cost of €862.5m, of which €662.3m will be spent on the actual building works, which commenced in the final quarter of 2015. Works are not due to complete until at least mid-2021.[71]

The Ports of Dunkirk and Calais are functionally very similar to Dover, and in both cases the timeframes for their expansions are measured in years; whereas the time until Brexit is measured in months.

Even if there were enough time, there isn't the space

Space is a constraint that affects all ports. The private sector organisations involved in operating the ports are incentivised to maximise throughput and trade flow, with available land used to generate revenue. They are not holding spare capacity that can be easily used.

At the ports facing the greatest immediate impacts, there is very limited room to expand. They are optimised for the current arrangements and are not able to rapidly scale up their customs capacity by orders of magnitude.

The Port of Dover is pinned against the cliffs with access through the town; the only direction to expand to is into the sea. The ongoing revival of Dover's Western Docks is adding space for an expanded container terminal and warehouse space by reclaiming land. This project was proposed in 2007 and is not due to complete until 2020. What space is being added has already been earmarked for use, and there is no new capacity for customs. Customs facilities that existed prior to 1993 have been demolished or repurposed, and even if the reclaimed land were turned over to customs operations it

would only offer enough space to process a fraction of all the daily shipments arriving from the EU on RoRo ferry services.

Likewise, the Port of Holyhead is enclosed within the town, which is backed up against mountains. While Folkestone is surrounded by fields, the terminus itself has no spare room to add capacity and so any expansion would require purchases of private land.

So the Government must look to limit the demand placed on the physical border

The challenge of accommodating an increase in customs requirements at the border is a significant one. The Government should give serious consideration to schemes that can shift the emphasis of customs away from the physical border.

One alternative to border checkpoints would be to carry out investigations and compliance audits at the source of production rather than at the border. For instance, conducting onsite veterinary controls of cattle and sheep going for slaughter could allow them to be pre-cleared electronically, avoiding the need for testing and checks at the border.*

Another option would be to use inland clearance depots away from the ports themselves. For many goods the physical border can be separated from where customs clearance is actually done. Vital to this would be the use of transit procedures – in particular Common Transit – which allow goods to travel across EU borders without being stopped. Any additional advances in transit procedures for road freight which allow clearance to be done for goods en route to the UK, as is already common in container shipping, would further ease the demand placed on the physical border.

For example, if a Turkish haulier passes through Bulgaria, even though the crossing into the EU is there, with a transit declaration submitted on the NCTS system it can travel through all the states of the EU without paying any duty or being stopped. The consignment is tracked at each significant crossing point until it reaches the UK. Once in the UK it is cleared at some inland facility, such as Stop24 on the M20.

One downside to this is that large guarantees would have to be provided by traders for every shipment if all exports had to use this system. Nevertheless, it does mean that the bottlenecks caused by UK imports at entry points could at least be alleviated in principle.

In addition, there is still the issue of other compliance checks. It has been suggested that such depots could operate as 'single window' points where inspectors for multiple agencies (for example, revenue collection, veterinary health, trade standards) can perform any necessary checks.[72] A step further would be to allow for shared clearance depots where customs authorities from both sides of the border could conduct juxtaposed checks for both regimes at either side of the border.

Nevertheless, the introduction of inland controls still requires the Government to identify where depots can be placed (with space at Dover already at a premium), the cost to build them and the staff to operate them. As we have argued, new technology

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* Pre-clearance for imports, exports and transit is provided for in the Union Customs Code, which allows declarations up to 30 days prior to shipment (see Noordijk A, no date, *Union Customs Code (UCC): The new face of EU customs procedures*, Damco, p. 9, www.damco.com/en/~/media/9f1edb7a46e5479b81d0c49642af4eb2).

to track consignments and new infrastructure will not be possible to implement in the Article 50 window.

The Government has already suggested that it would look to use the EU's trusted trader scheme called the Authorised Economic Operator (AEO) scheme – or a new UK-based equivalent – to reduce actual documentary requirements at the border.[73] These schemes are well-defined concepts within the World Customs Organization's (WCO) framework of standards and create a ready basis for building trust around products to help reduce checks. It would allow certified trustworthy UK traders to benefit from streamlined processes – including minimised documentary requirements, fewer physical inspections and faster clearance times – and enable customs authorities to concentrate on higher-risk traders. The big value in this is that it reduces the guarantees needed to utilise NCTS.

However, the current EU accreditation process takes months to complete and involves close scrutiny of financial records and supply chains. The UK would need to maintain similar requirements as the EU to enable mutual recognition, but that may mean that the system is too burdensome for some SMEs. We were told that the accreditation process for AEO status can take around six months for businesses, meaning that clear guidance is required early to ensure that traders are ready to make the most of the scheme.[74]

All of these potential mitigations require co-operation and agreement with European counterparts. This can only be achieved with shared trust and a broad preservation of convergence in customs regulations and controls.* Yet even with such an agreement, the Government must recognise that there is neither the time nor the space to simply expand the infrastructure capacity, and even if there was there are further questions about how expanded facilities would be staffed. A meaningful transition period will offer all those involved the time to make the necessary adjustments – such as building new facilities, hiring and training new staff, connecting the expanded capacity into existing infrastructure and allowing businesses to qualify for AEO status.

> ### Recommendation – customs infrastructure
> HMRC and Border Force must recognise the constraints at the physical border and find means, such as Authorised Economic Operators or moving checks inland, to limit the activity required at key ports or crossings.

Government co-ordination and capability

This section looks at how government should manage the major cross-government exercise that is customs preparation by supporting effective communication and co-ordination between departments, local authorities and public bodies.

Implementing Brexit requires the transformation of a number organisations

HMRC is the tip of the iceberg for customs. Responsibility spreads right across all levels of government with 36 organisations (departments, public bodies, and other agencies)

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* They also have extra complications when it comes to the Irish border due to the preponderance of SMEs, the over 200 crossing points and the political sensitivities around any form of hard border. For a further discussion of these, see Hayward K (2017) 'A hard Irish border is quite possible, a frictionless one is an oxymoron', blog, London School of Economics, 10 July, http://blogs.lse.ac.uk/brexit/2017/07/10/a-hard-irish-border-is-possible-a-frictionless-one-is-an-oxymoron/

involved in policy and operations relating to the border. These range from the Government Diamond Office to the Food Standards Agency (see Figure 4 in Chapter 2). There the more visible work of Border Force is supplemented by specialist functions across the public sector; the Arts Council has a specialist licensing agency for cultural goods, the Forestry Commission requires notification and certification for plants being imported and there are roles for the Ministry of Defence, the Horticultural Marketing Inspectorate and many others. Local government also has responsibilities, with Trading Standards and over 100 port health authorities playing important roles up and down the country (see Figure 4 in Chapter 2).

Outside the EU, all parts of this jigsaw will need to adapt and implement the relevant changes. For example, under any UK–EU free trade agreement which changes the customs requirements for agri-food, Defra alone could face transformation in several of its major public bodies. These include the Animal and Plant Health Agency, the Forestry Commission, Rural Payments and the Environment Agency.

The Animal and Plant Health Agency (APHA) has 2,300 staff based around the UK to enforce EU regulation and policy. At the moment, it has inspection posts at over 20 points of entry into England and Wales and it issues over 12,000 export certificates and inspects quarantine-licenced premises.[75] APHA's focus is both EU and non-EU trade, but the burden of checks on non-EU trade is significantly greater than for EU trade. In 2013, 70% of the UK's imports of food, feed and drink by value came from the EU, and similarly 61% of the UK's exports of the same went to the EU. Applying increase checks to highly-regulated agricultural goods could have a dramatic effect on the volume of work for bodies like APHA.[76]

Local government could also face new demands as a result of Brexit and changes to customs, port health authorities in particular. These authorities are responsible for carrying out many of the checks on food as it enters the UK and, while they do currently look at some specialised or high-risk EU goods, checks on non-EU imports are more thorough. They can range from simply checking documents against their databases to physical inspection – opening packaging and smelling or tasting the item. In some instances, the goods need to be tested in a laboratory before they can be cleared to leave the port. Any increase in checks will have a big impact not only on UK industry and supply chains, but also on local government – whether it is officials or vets required to do more checks or the space for testing to take place.

The Government must be clear on its priorities and the balance between trade facilitation and security

Despite the large and disparate constellation of bodies involved in the customs process, there are two key players: HMRC and the Home Office. But they have very different priorities, which need to be reconciled.

Customs is, as we have argued above, about both trade facilitation and security. Facilitation of trade, allowing movement of goods to be as free as possible, generates revenue for the Exchequer and supports UK industry, while security ensures that safeguards are in place to prevent illegal practices and protect consumers and the environment.

In the UK, HMRC is responsible for facilitation whereas the Home Office, through Border Force, prioritises security. Other major trading nations, such as Canada and New

Zealand, have a single government department or minister responsible for both major functions and the overarching policy. The split in responsibility in the UK has prompted concern from those working in private sector customs organisations, who worry that competing interests will affect the Government's ability to design and deliver coherent policy change at the border. The Government needs to be clear on its position and how decisions will be made on future customs policy. Border Force and HMRC must be tightly aligned to implement changes in customs.

The UK, like the Netherlands, is known for prioritising facilitation over security. As a result, we were told,[77] it is seen as having less rigorous checks for third-country trade than many other EU members.

The Government has taken positive steps to manage this challenge

Co-ordination and implementation across departmental and agency boundaries are a challenge that the Government is all too aware of. Steps have already been taken to prevent further complications in the preparation for post-Brexit customs.

A new cross-government working group – the Border Planning Group – has recently been set up, chaired by Jon Thompson, HMRC Chief Executive and Permanent Secretary, which includes representation from Border Force, Defra, the Department for Business, Energy and Industrial Strategy (BEIS), the Home Office, the Treasury and others.

The group has much-needed heft behind it, with a new Director-General Border Planning appointed in July 2017 with significant experience in operational delivery. This role will be critical to ensuring that the board is able to be decisive and drive the agenda, with analytical resources and clout to ensure that the group's decisions are translated into action. The Director-General Border Planning will also be critical for co-ordinating change and ensuring 'operational readiness' at the border on day one.

Delivering major changes across departmental and organisational boundaries is difficult. Clear accountability is a key component to project and programme delivery but the National Audit Office argues that accountability can be blurred when delivering across departmental boundaries.[78] Customs preparations in government, until the recent introduction of the Border Planning Group, had responsibilities spread out across the range of departments and agencies, lacking a focal point for decision making and co-ordination.

The formation of the Border Planning Group is regarded as a positive and important step in Whitehall. The group is seen as an opportunity to improve communication and co-ordination, facilitating a cross-government conversation on the detailed administrative implications of policy options, where preparations have previously suffered from a lack of clarity and information. It focuses accountability, with a single decision-making body. The group is too new to be judged a success, and it no doubt faces some significant challenges, but its creation is a constructive move that is welcomed by those involved in preparations for post-Brexit customs.

Retention and stability will be critical if government is going to deliver

Even with strong leadership from the Border Planning Group, preparation for day one is dependent on teams of specialists at all levels, from different departments and agencies.

Customs requires technical knowledge of a complex policy and operational landscape. There is a lot of external engagement, with private sector organisations that specialise in customs and know their parts of the puzzle in great detail. To understand the process, deliver at the necessary speed and be credible with these external stakeholders, government needs experienced specialists.

But some external organisations have found that government's understanding of the customs process has been patchy on occasions. In certain parts of government, important experience has been lost over the past five years and newer members of staff have had to manage a steep learning curve as a result of Brexit. Private sector organisations involved in customs report of having to brief civil servants on certain parts of the process, to build up knowledge.

Some churn is inevitable but, for customs and Brexit preparations, government is more vulnerable to the negative effects. With very little additional resources made available to date, limited time within which to deliver and high technical understanding required, stability and retention are critical. Government must look to build resilience into its staffing model wherever possible.

To start, vacancies need to be filled. As of 27 June 2017, the CDS delivery programme was carrying around 50 vacancies, with four required immediately to prevent adverse effects to delivery.[79] Government must prioritise filling these gaps, as failure to have customs prepared for day one could cause significant disruption.

Decisions need to be made quickly to ensure that government has enough frontline staff for day one

The civil service's capacity to deliver Brexit has been in question since immediately after the EU referendum. In June 2016, the civil service was the smallest it had been since the second world war and it faced the huge administrative task of unpicking the UK's relationship with the EU, repatriating powers and functions that have resided in Brussels for over 40 years.

Since then, staff numbers have risen. Civil servants have been hired and drafted in to key Brexit departments such as Defra and the Department for Exiting the European Union. But these increases in staff numbers have largely been in Whitehall, boosting the civil service's capacity to undertake analysis, policy and legislation.

Adapting the UK's border to ensure that it is ready for exiting the EU will need a significant increase in frontline staff as well, all around the country. Government has recognised the challenges it faces, along with those faced by SMEs, in recruiting and training new staff to provide the necessary capacity at the border.[80]

Border Force is, we were told, already hiring some additional staff to give it a bit of flexibility. But this is not enough to be ready for 'no deal'. If government is going to be prepared for a hard exit in March 2019, the big decision points for staffing are imminent. It takes time to hire and just training new recruits would take a year or so.

This training is even longer for specialists. If the UK is required to undertake checks on animal produce coming from the EU, it will need an increase in the number of vets. There could be a need for an increase in experts available to test chemicals or plants as well. It may not be possible to find and train all of these new specialists in time.

Government will need a clear plan of how to resource the border. It may need to look abroad to attract the talent it needs.

> ### Recommendations – government co-ordination and capability
> 1. The Government should continue to use the cross-government Border Planning Group to orchestrate preparations for day one.
>
> 2. The Government should prioritise retention of staff and stability in key specialist teams to prevent the loss of critical expertise and knowledge.

Preparing business

This section looks at how the Government should work with the extensive private sector interests in customs to ensure that issues are addressed and there is sufficient preparation and capacity for customs on day one. It covers two types of private sector organisations: the businesses that play an active role in the customs landscape; and traders.

Government is just one part of the picture – the private sector plays a critical role in the process

The customs landscape in government is a complex picture, but that intricate image with numerous moving parts is mirrored in the private sector.

From leaving the exporter to arriving with the importer, a good is likely to pass through the hands of as many private sector organisations as it does government departments or agencies. Private sector organisations own UK ports and airports, operate them, transport the goods, handle the customs processing and manage logistics (see Figure 5).

Any change made to the customs process by government will need to be reflected in the private sector, whether it is new ICT, increased documentation or greater capacity and related infrastructure. Successful day-one implementation is as much about these private sector organisations that support UK border operations as it is about government; effective engagement is critical.

But, in the past, government has struggled to effectively engage these organisations. The National Audit Office has said that e-Borders, the failed Home Office ICT programme, suffered from 'underestimating the importance of stakeholder management' and focusing on delivery timelines to the detriment of engagement.[81]

Government needs to step up engagement with the private sector organisations that support customs processes

There is, however, already a successful engagement mechanism in place for customs. The Joint Customs Consultative Committee (JCCC) is an HMRC-sponsored forum that brings together over 20 member organisations representing private businesses in the customs process. It was set up almost 50 years ago and it meets three times a year. Members cover the ports, hauliers, community systems providers, freight software suppliers and logistics companies. In 2016, the JCCC set up a Brexit sub-committee, which meets about once a month to discuss preparations for exit from the EU.

But the JCCC, largely filled with senior figures from major representative bodies, can suffer from being too high level and is at risk of becoming a talking shop. With such complex and detailed interdependencies between government and the private sector, high-level engagement will quickly need to become more detailed, involving working groups and closer collaboration. Government will need to work in lockstep with these organisations to ensure readiness for Brexit. Furthermore, implementation will require engagement at all levels of the private sector, not just among the most senior decision makers.

Previous Institute for Government research has shown the importance of detailed engagement. During Automatic Pension Enrolment, government relied too much on its engagement with trade associations. The lack of engagement with employers meant that regulations needed to change mid-course, rather than being more effectively designed at the start.[82]

But engagement is not enough on its own. Government needs to recognise that for these private sector organisations to be ready, they will need time to adapt.

These private sector organisations will also need time to adapt their processes to support the new customs requirements...

Some of these private sector organisations will need to adapt their ICT systems to interface with new government systems, and port operators might need to find space for inspections to take place and they may need to build new warehouses or hire and train staff to manage a huge surge in activity.

For example, customs clearance agents based in the south-east of England currently manage non-EU trade coming through Dover and the Channel Tunnel. This makes up about 1% of total trade through the Channel ports. To scale these organisations up to the point where they have the capacity to manage 100% of trade would require new systems, staff and infrastructure. For organisations that currently employ around 20 people, a hundredfold increase in work would be completely incompatible with their current business model.

These private sector organisations are usually given a period of years to adapt to changes once government has implemented them. For changes introduced in the Union Customs Code (UCC), plans were agreed in 2013, introduced in 2016, and government and business were given until 2020 until they needed to be compliant.[83] Organisations therefore had a four-year period to prepare. When the UK implemented the Import Control System, introducing Entry Summary Declarations (ENSs) in what is a relatively straightforward change compared with Brexit, organisations were given 18 months to adapt once the UK Government had finished work on the system.[84] With formal withdrawal from the EU in March 2019, organisations have got less than 20 months to prepare for an outcome that is not yet agreed.

In its position paper on future customs arrangements and position paper on Northern Ireland and Ireland, the Government has acknowledged the challenges for businesses associated with transition. It has placed an emphasis on negotiating a single-step transition so that organisations need only change their practices once. Additionally, although this transition would be 'time limited' its length would be 'linked to the speed at which the implementation of new arrangements can take place'.[85]

And they will want some certainty before they spend money

These private sector organisations will want assurances that they are not spending money in vain. They will want to avoid the prospect of preparing for 'no deal', with the significant investment it could require, only for a lengthy transition and soft Brexit to be agreed.

Ultimately there is a need for certainty. At the moment, there is little clarity about when these organisations can expect a decision to be made and whether they will be given the time to prepare once it has been made. We have been told that some have received so little information that they do not anticipate having to make wholesale change by March 2019; they now believe that there is just not enough time.[86]

This lack of certainty extends to money, and who will pay for major upgrades. Some businesses wonder whether they can expect support from government to finance such large, expensive changes in the challenging timelines. But government will be reticent, providing what could be seen as subsidies to certain private sector providers and offering them a competitive advantage. Either way, clarity is required quickly and there may need to be legislation to force private sector organisations to start making the changes needed and incurring the costs in doing so.

Then there are importers and exporters, who face a major step change in administration

So far this chapter has focused on organisations that are involved in the logistics and operations of customs. But British businesses looking to import from or export to the EU face a step change in administrative requirements, and they need to be prepared to make it.

After exit from the EU, there will be 180,000 traders, from individuals and micro-businesses to large organisations across different industries, who will need to make customs declarations for the first time. Preparing these organisations to use a process they are unaccustomed to is a huge task. They will need to navigate new technology and provide detailed information, as well as potentially requiring new certification from a range of public bodies.

Every trader looking to export to the EU could end up needing to complete a Single Administrative Document (SAD) and an Entry Summary (ENS). As we stated earlier, the SAD consists of eight parts with 54 boxes which must be completed and submitted for every declaration.[87] Along with numerous other documents such as insurance certificates and specialist documents, this represents a significant additional burden to businesses.

Without clarity on what customs will look like after Brexit, businesses cannot plan the transition they need to make.

The Government does not yet have a plan for how it will switch traders to making declarations through CDS once it is in place, nor does it know how to ensure that the 180,000 traders, making declarations for the first time, are aware of what is required of them on day one.[88] These plans for transition are critical, guiding organisations through substantial change to ensure that they are ready to avoid a cliff edge.

The JCCC is a ready-made forum for engaging with key players in the customs process, but there are 'significant gaps' in its engagement with the tens of thousands of businesses that will need to be ready to trade in the new environment.[89] The smaller and less-established traders, without strong government relationships, are a particularly key gap and they face potentially significant impact from any change. Government must leverage its existing networks and prioritise improving engagement with these groups, or it faces traders being unprepared for day one and consequences for UK businesses.

Business needs to prepare itself to cope with the additional costs of the new customs regime

In our recent paper, *Frictionless Trade*, we highlighted the potential disruption and cost to supply chains as a result of a change in our relationship with the EU.[90] Each option for securing frictionless trade after Brexit, from continued Single Market membership to a free trade agreement, introduces some element of cost to the supply chain. Whether it is from tariffs or the introduction of 'rules of origin', which the Government has previously estimated could cost firms 4–15% of the cost of the good, there are a number of drivers for increased costs.[91]

The need for customs declarations alone could cost business billions. We were told that a customs declaration is likely to cost a trader in the region of £20 to £45 per declaration.[92] With an additional 200 million declarations expected after Brexit, the cost to business could be in the region of £4bn to £9bn.

Traders are also charged for checks. A physical examination of goods from port health authorities can cost a trader anywhere between £106 and £600 per container, depending on the test requirements.[93] For some goods, this means being transported to specific locations to be tested, which adds an extra £30 every two containers.[94] For those that then enter storage in order for checks to take place, rent can be charged.

The scale and cost of change for many traders could be significant. Government must engage with them in detail about changes, understanding their requirements and giving them as much time to adapt as possible. Preparedness for exit from the EU depends as much on these groups of external stakeholders as it does the Government.

Government must be clear about the options and contingencies, offering as much certainty as possible. Businesses, from customs handlers to exporters, must be given the necessary information to allow them to plan effectively.

Recommendations – preparing business

1. HMRC must expand its engagement with the private sector beyond the Joint Customs Consultative Committee (JCCC), using more detailed working groups to manage implementation and the dependencies on the private sector as well as undertaking detailed transition planning with traders.

2. The Government must publish detailed plans and scenarios for day one as soon as possible. Businesses need to be given enough information and time to prepare.

A canyon, not a cliff edge

This section looks at the role that member states will need to play in preparations for the UK's exit from the EU. There are two sides to the cliff edge and preparations across the English Channel are just as important as preparations in the UK for minimising disruption.

Customs is a bilateral process and how the EU will treat UK goods matters

There are two sides to any border; any goods we export inevitably become an import in another country. This is a symmetrical process and, following Brexit, both sides will erect customs processes where there were previously none. As we have already discussed, there is no way for these to replicate the same frictionless trade as the UK currently enjoys through its membership of the Single Market and the Customs Union.

The UK has no say over how its exports are treated. Only a trade deal can change this. The default EU position, which we would experience under 'no deal', is one where UK goods would face extensive barriers to trade, in addition to high tariffs. Even with a comprehensive trade deal in place, Belgium, France, Ireland and the Netherlands will need to implement changes to their customs systems to process UK imports.

The issue is potentially most acute for Ireland. In addition to more than 200 points where roads cross the land border into Northern Ireland, there is a significant amount of trade across the Irish Sea. While ports such as Dublin and Holyhead may be unprepared and unable to expand their customs capacity at short notice, the question of how to handle goods crossing the land border is more pressing.

At the moment, the border is essentially non-existent. Free movement of goods has enabled the integration of supply chains, ranging from drinks to car parts. If the EU requires strict controls on UK goods, Ireland will be legally obliged to comply, with potentially significant consequences. The Government's position paper on the border between Ireland and Northern Ireland set out its ambition to negotiate an arrangement where no hard borders are required,[95] but again this is a matter for negotiation and agreement with the EU27.

The risk of disruption from the other side of the Channel is significant

The Ports of Calais, Coquelles and Dunkirk are the counterparts of Dover and Folkestone; these ports share an exclusive trade flow of around four million lorries per year by ferry and the Channel Tunnel. The challenge faced by Dover and Folkestone to supply customs will be replicated in kind in these French ports.

Depending on the scope of the Brexit deal, this could mean extensive new infrastructure, a significant workplace expansion and hundreds of millions of euros being spent. Insufficient time to make changes, and the associated legal and procedural requirements, are just as urgent in France as they are in the UK. The Ports of Calais and Dunkirk are both in the process of multi-year upgrades costing almost €1bn combined. While both projects will add some new customs capacity, they were initiated well before the EU referendum and are scaled to the organic growth in trade and customs requirements anticipated while the UK remained a member of the EU. It would be complicated and costly to change the scope of these projects midway through.

Disruption in Calais will be felt in the UK. In June 2015, strikes by French workers in Calais resulted in over 30 miles of tailbacks along the M20 in Kent and the closure of the road to coast-bound traffic for almost two weeks.

There is a limited amount of ferry capacity and what exists is scaled to support an uninterrupted flow of lorries. If the ferries – or the Channel Tunnel transporters – cannot unload, whether it is because of a strike or bad weather or because the port is full of lorries waiting for checks, then those same ferries will not be able to whisk away with the lorries waiting to depart. This would result in tailbacks both in France and up the M20 as lorries waiting to embark are held up. In this sense, the customs issue is not just a cliff-edge issue, but a canyon.

Currently, the only remedy for this scenario is 'Operation Stack', an emergency plan that exists to reroute traffic around Kent in the case of delays. This procedure is based on a set of emergency powers, which allow the police to control the movements of lorries. While this can hold up over short periods, it was never designed to be the default state. The events of June 2015 tested the limits of Operation Stack and cost the UK dearly. Giving evidence to the Transport Select Committee, Natalie Chapman, a Head of Policy at the Freight Transport Association, argued that every day of disruption caused a loss to the UK economy of up to £250m, using an estimate provided by the Port of Dover.[96]

What is notable is that every recent instance of Operation Stack has been due to issues on the French side of the border. A lack of customs capacity at that border would represent a new category of issue, which would have similar impacts on the Kent ports and their surroundings but would not have any immediate hope for resolution, unlike inclement weather or a temporary strike.

While trade is integrated most tightly across the Straights of Dover, and the Irish border, there will be similar impacts on ports in other neighbouring countries. Ports in Belgium and the Netherlands are already beginning to prepare for the impact of Brexit on their staffing requirements and infrastructure. We were told that the Port of Rotterdam may need to hire up to 800 more staff to handle the new customs work for UK trade after Brexit.[97]

We have no control over how other countries prepare for Brexit

The EU27 member states will be legally bound to treat our goods as third-country imports following a UK exit from the Single Market and Customs Union with no deal. Only a formal agreement can mitigate that risk. While the similarity of the UK and EU regimes provides a good basis for agreeing the continuation of smooth trade, it is not enough in and of itself to limit checks.

There are some notable asymmetries in the cross-Channel flow of goods. While UK-bound goods come from many nations or sources, EU-bound lorries are overwhelmingly full of UK-made products. Similarly, the flow of value is unbalanced, and the UK receives more in trade than it sends across the Channel.

Engagement will be critical

Relationships will be a major challenge, not just between the UK and other nations, but also between government agencies in the UK and EU27, private companies working at either border and all groups in between. Existing bilateral arrangements and legislation

that facilitate trade, such as the Channel Tunnel Act 1987 and the Le Touquet Agreement 2003, were not designed for changes in the UK's status within the EU. They may need to be modified, or supplemented with new agreements that would foster co-operation between customs agencies and other relevant authorities.

The Home Office currently has a working group with its French counterparts, but a similar cross-Channel group including the transport teams for the councils of Kent and Pas-de-Calais was paused some years ago, with no immediate plans to reconvene. Solving this issue will require careful diplomacy as it is a complex combination of bilateral relationships between the UK and its immediate neighbours that depends on a higher-level multilateral consensus between the UK and the wider EU27.

Recommendation – a canyon, not a cliff edge

The Government should undertake detailed bilateral engagement activities with authorities in France, the Republic of Ireland, the Netherlands and other EU member states to ensure that both sides of the UK–EU border are prepared for Brexit.

Appendix A

This table details components of the EU's customs system which could be included as part of any future EU–UK customs agreement as well as some important provisions (included in other trade deals) which can facilitate the movement of goods.

Data protection	
Data adequacy	The EU's General Data Protection Regulation regulates how personal information is shared between countries. The expansive definition of 'personal data' used by the EU covers elements of what is shared between customs authorities. EU-based organisations can only share data with third countries that meet the same standards and are deemed 'data adequate'.[98] Access to this data allows HMRC to employ intelligence-led controls at the border, and checks that are targeted using smart risk analysis. It also enables the UK to share information with other EU member states about dangerous goods, novel risks and criminal activities such as smuggling.[99]
ICT systems	
New Computerised Transit System (NCTS)	The NCTS allows traders to submit transit declarations and proofs of guarantee (bond money). Consignments can be tracked as they travel across member states. The NCTS enables paperless customs clearance, which in turn reduces the costs of customs and delays at the EU border.[100]
Customs Information System (CIS)	The CIS is a single centralised source of EU-wide customs information, which is used to investigate and prosecute against breaches of customs and agricultural rules. It also enables data exchanges on goods moving between the EU's customs territory and third countries.[101]
Excise Movement and Control System (EMCS)	The EMCS monitors the movement of excise goods – such as alcohol, tobacco and energy products – that have yet to have their duties paid. This information helps member states to co-operate by sharing this information.[102]
Trade Control and Export System (TRACES)	TRACES is an EU-wide online tool that helps to control the import and export of live animals and animal products. It provides the mandatory veterinary and sanitary certificates that any consignment of these goods requires.[103]
European Union Notification System for Plant Health Interceptions (EUROPHYT)	EUROPHYT is an online surveillance and warning system that helps to protect the EU against the introduction of new pests and diseases affecting plants. It tracks interceptions of dangerous imports, maintains a database of threats and shares alerts of new risks and dangerous consignments with member state customs authorities.[104]
Rapid Alert System for Food and Feed (RASFF)	The RASFF allows rapid and efficient information sharing about food and feed safety between customs authorities. This can lead to product recalls and other forms of risk-based control.[105]
Registered Exporter (REX) system	The REX database lists the organisations that are entitled to certify the origin of their own goods, in line with the preferential tariff rates that the EU grants to goods from certain countries. This relates to rules of origin.[106]
Regulation	
Mutual recognition of conformity inspection	Agreements involving mutual recognition of conformity inspection allow national regulators and other assessment bodies to check that goods comply with the standards and regulations of another nation and have that assessment trusted by the trade partner. This allows many checks and tests to be done once, away from the border. These goods are essentially pre-cleared before they arrive at the other country as imports, enabling trade to flow more easily. However, a document check is still required at the border to prove that the tests have been completed.
Equivalence	Agreeing equivalence for a category of goods means that if it can be lawfully sold in one market, it can be lawfully sold in another. Where equivalence has been agreed between two customs territories, goods can be traded freely without (or with severely reduced) document checks and other inspections.

Agreement on transport services	Hauliers moving freight require transit permits for their vehicles, which most nations or blocs assign according to strict quotas. These permits and licences have to be presented every time the vehicle crosses a border. By agreeing to waive this requirement, more vehicles can move more freely between territories, such as the UK and EU.
Authorised Economic Operator (AEO)	
Mutual recognition of trusted trader schemes	The Authorised Economic Operator is a standard convention defined by World Customs Organization (WCO) rules. It is a designation that can be applied to almost any organisation involved in trade, from exporters and carriers, to brokers, ports and terminal operators. Companies earn this status by meeting certain standards for record keeping and financial solvency. Agreements that recognise the credentials of AEOs allow these firms to trade their goods with fewer document checks. They may also be permitted to use simplified customs procedures without providing financial guarantees.[107]
Tariffs	
Rules of origin	Where an agreement allows for preferential tariff rates, then rules of origin will need to be observed. These require traders to submit proof that their goods contain a certain proportion of materials or components from the 'preferred' nation in order to qualify for the lower tariff. Before traders can do this, they need to be audited by a recognised authority and register with a system such as the EU's REX system.
EU VAT Regime	
VAT Agreement	Currently trade between UK and the EU enjoys zero-rated VAT. Leaving the EU's VAT regime will mean that reporting requirements will change. Goods exported from the UK to an EU country will be subject to import VAT and traders will have to register for VAT with the EU. The Government's paper on future customs arrangements explores not switching UK–EU trade to non-EU status, and incurring an unwelcome compliance burden and cash-flow risk.[108] It does not provide any more detail however. The UK could agree to remain integrated in the EU VAT regime post-Brexit either for a transition or as part of a deal. But the UK would have to remain harmonised with the EU's VAT Directive and subject to the European Court of Justice.

Appendix B: Full names of government departments

BEIS	Department for Business, Energy and Industrial Strategy
DCMS	Department for Digital, Culture, Media and Sport
Defra	Department for Environment, Food and Rural Affairs
DfID	Department for International Trade
DfT	Department for Transport
DH	Department of Health
DIT	Department for International Trade
DWP	Department for Work and Pensions
FCO	Foreign and Commonwealth Office
HMRC	HM Revenue and Customs
HMT	HM Treasury
HO	Home Office
MoD	Ministry of Defence

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