



UK Trade Policy Observatory and InterAnalysis

Response to the DIT Consultation on UK Trade with the United States

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Peter Holmes, Julia Magntorn and Jim Rollo with contributions by Michael Gasiorek and Emily Lydgate.

The Authors of this document are members of the UKTPO and InterAnalysis. The UK Trade Policy Observatory ([UKTPO](#)) at the University of Sussex is an independent expert group that focuses on the international trade aspects of Brexit and offers a programme of research and analysis of both current and post-Brexit options for UK trade policy. The University of Sussex has the largest concentration of academic expertise on the world trading system in the UK with specialists in economics, international relations and law. Created in June 2016, the UKTPO is committed to engaging with a wide variety of stakeholders to ensure that the UK's international trading environment is reconstructed in a manner that benefits all in Britain and is fair to Britain, the EU and the world.

[InterAnalysis](#) comprises international trade policy specialists who share over 100 years of experience in trade who can aid your trade policy analysis work and research. InterAnalysis has vast experience in international trade both in academia and for governments and international organisations. InterAnalysis produces TradeSift software to analyse Trade policy options using only trade data. InterAnalysis also provides Trade Policy training courses and consultancy based on TradeSift.

We welcome the open consultation on the 'Trade with the United States' and the opportunity to respond to it. However, responding to such consultations is difficult without there being a clear consultation and dialogue on what the Government's overall trade policy objectives are, and therefore how any given agreement fits into those overall objectives. Those objectives might be short-term (to deal with the negative consequences of Brexit) or longer term, where the government is considering the longer-run evolution and transformation of the economy. We would welcome the Government engaging in a broader strategic consultation. We must therefore stress that what follows is a preliminary analysis and views may change as details of UK and US negotiating objectives emerge.

Introduction

Post Brexit, the UK will lose market share with Europe in all likely scenarios of trade relations with the EU27. Not surprisingly, the UK is looking for opportunities to replace the lost market access including via value chains. Again not surprisingly, the US, as the largest technologically advanced economy, is a key target for the new British trade policy. All this before political and cultural affinities are taken into account. The US is similarly enthusiastic with three factors in support. First, the Trump administration is looking to increase its market access by signing Free Trade Agreements (FTAs) that explicitly favour the US (America first). Secondly, it wants to repatriate American investment, and lastly it wishes to use the emergence of the UK onto the World Trade scene as an independent actor as a way of challenging the regulatory reach of the European Union in world trade.

Given the transatlantic currents that are likely to drive this evolving trade and political relationship, the University of Sussex Business School - represented by UKTPO - and the McDonough School of Business, Georgetown University, have formed a scholarly partnership to study this process. The first product of this partnership is [UKTPO Briefing Paper 20](#) published in July 2018. The main analytical themes and the key conclusions are summarised in the Annex to this submission.

This submission is designed to add to that briefing paper, not to supersede it. The structure of the submission is first to deepen the analysis of the regulatory analysis in specific areas: principally focusing on the car industry and, to a lesser extent, services trade, with some discussion of different approaches to SPS and TBT in general. That regulatory section is followed by an extended section applying the Sussex Framework (see below) largely to goods trade, though with some consideration also of services trade, using TradeSift software to explore the potential for reducing trade barriers so as to favour trade creation and reduce trade diversion (where a product receiving a trade preference displaces a more efficient producer from a country not receiving a preference). It can also help identify competitive products that are suffering from potential trade barriers, or products that are potentially part of value chains

A general point is that the core of any FTA is an exchange of market access between the negotiating parties, and even if that is agreed it still needs to meet the test of the trade-off between domestic winners and losers. In the analyses presented here the focus has been on reducing barriers and that means wins for consumers of final and intermediate goods and competitive exporters. The losers are uncompetitive producers of import substitutes, and possibly taxpayers from any loss of tariff revenue. In what follows, this domestic bargaining is not considered.

Regulation and food safety

The most politically sensitive issue in trade relations with the US is the perception that the US wishes to force the UK to abandon tighter EU food safety rules in favour of laxer US standards. We have dealt with these points extensively in our [briefing paper](#) and other [UKTPO](#) material.

At this point we would just make a few points. The US has for a long time been highly critical of EU SPS rules, and getting the UK to move away from the EU system would be a very high priority for the US for reasons that go deeper than the dollar value of market access to the UK. The US seeks to influence the world trade system in the direction of a broader recognition of equivalence and away from what it sees as the EU attempt to establish a form of regulatory hegemony. There are genuine grounds for debate about the kind of mutual recognition the US is advocating. Our colleagues at the [Science Policy Research Unit - SPRU](#) have written extensively on this, and we would refer the reader to their work as well as our own.

We would conclude by saying that irrespective of the technical merits of the animal welfare and safety dimensions of such matters as chlorine-washed chicken, public opinion would offer considerable opposition to a move towards a US approach and the EU would not give mutual recognition to our food products. There would also be a serious need to consider the implications for border control for food products, including notably at the Irish border.

Car Industry issues and regulation

Cars are the UK's single largest export to the world (measured at the HS 4-digit level). The EU participates fully and other potential UK trade partners align themselves more selectively with UNECE rules. Recent signatories of FTAs with the EU commit to continuingly closer alignment with the UNECE system. Though signatories to the UNECE's original 1958 agreement, the US and Canada have not adopted the later UNECE agreements. The UNECE in principle sets standards, and member states such as the EU adopt legislation, giving effect to them and spelling out how conformity is to be assessed.

The UNECE and US/Canadian rules are substantively different, e.g. in terms of such matters as permitted emissions levels and fuel economy requirements. They also have very different conformity assessment rules.¹ The EU/UNECE system rests on government supervised Type Approval Certification. The US relies on self-certification:

¹ U.S. and EU Motor Vehicle Standards: Issues for Transatlantic Trade Negotiations Bill Canis Specialist in Industrial Organization and Business Richard K. Lattanzio Analyst in Environmental Policy February 18, 2014 Congressional Research Service

“DOT does not approve any motor vehicles or motor vehicle equipment items as complying with all applicable FMVSS. That is instead the responsibility of the vehicle or equipment item’s original manufacturer.”²

“However, the agency neither approves motor vehicles or parts as complying with its standards nor collects information from manufacturers as to compliance.”³

Checks may be done later which can lead to recalls.

With regard to the USA, car tariffs are currently low (2.5%). But of course, if the US raises tariffs across the board OR if it signs a car deal with the EU, the UK could find itself at a disadvantage without its own FTA with the US. However, the Trump administration’s policy on cars does not suggest it is eager to see value chains being extended to components from the UK (as a possible replacement for supply chains into the EU). The UK could not currently comply with the tightened USMCA rules of origin and, of course, if it did, any cars so-produced would not be eligible for UK origin under a future EU-UK FTA.

Sussex Framework

The [Sussex Framework](#) has established a set of diagnostic indicators and rules of thumb to be evaluated systematically in order to predict the likely economic impact of a trade agreement. The importance of each element listed in the box below should be evaluated with respect to a proposed trade agreement.

Box 1: Rules of Thumb derived from the Sussex Framework

The potential gains from Regional Trade Agreements (RTAs) are likely to be higher::

- 1 The higher the initial barriers are between the RTA partners.
- 2 The higher the percentage of trade is with potential partners.
- 3 The greater the number of RTA partners.
- 4 Wide differences in underlying comparative advantage.
- 5 The more similar is the product mix exported the more potential gains from specialisation.
- 6 Trade diversion is more likely when potential partners and excluded countries are close competitors.

² <https://one.nhtsa.gov/cars/rules/import/FAQ%20Site/pages/page2.html#Anchor-19914>

³ See2 above

- | | |
|---|--|
| 7 | The greater the possibilities for supply chain integration the greater the likely gains. |
| 8 | If total trade is initially a small share of GNP. |

Applying the Sussex Framework to a UK-US trade agreement

Economic relations between the UK and the US are significant:

- Table 1 shows the UK's goods trade with USA over the period 2015-2017. The US is an important trading partner for the UK, ranking as the UK's top export destination and the third largest import partner over the period, accounting for 14.4% of total UK exports and 9.2% of total UK imports. While the UK is also an important trading partner for the USA, it accounts for a smaller share of US total trade (2.4% of total US imports and 3.8% of total US exports).
- WIOD data suggests that in 2011 there were roughly 8.3 million UK jobs from total UK exports, and of those just over 11% or nearly 1 million came from exports to the US.
- Over the period Jan 2014 to March 2018: 13% of UK FDI was destined for the US; 9% of US FDI destined for the UK. Over the same period, the US accounted for 10.6% of total FDI in the UK, and the UK accounted for 7.9% of FDI in the US.⁴
- On average, tariffs between the parties are low, with the US having a lower average of 3.6% compared to UK's 5.3%.

Table 1: UK-US trade and tariffs, summary

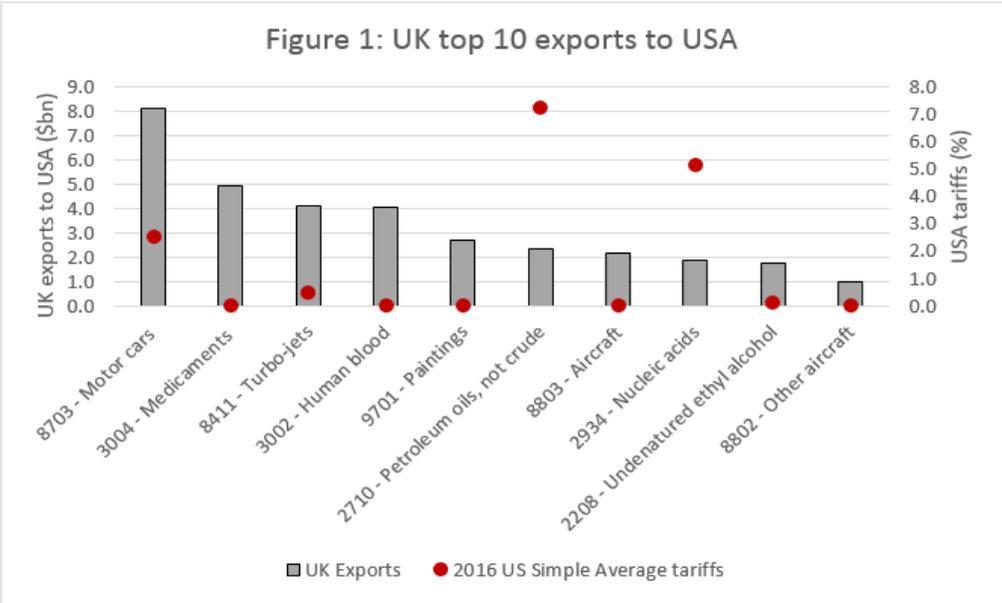
UK-US	
Share of total UK exports going to USA	14.4%
Share of total UK imports coming from USA	9.2%
Export rank	1
Imports Rank	3
UK average applied tariffs on US	5.3
US-UK	
Share of total US exports going to UK	3.8%
Share of total US imports coming from UK	2.4%
Export rank	5
Imports Rank	7
US average applied tariffs on UK	3.6

Source: Trade data from UN Comtrade, HS 2012, accessed through WITS. All trade values are based on averages for years 2015-2017. Tariff data is from TRAINS, using simple averages for year 2016, including ad-valorem equivalents.

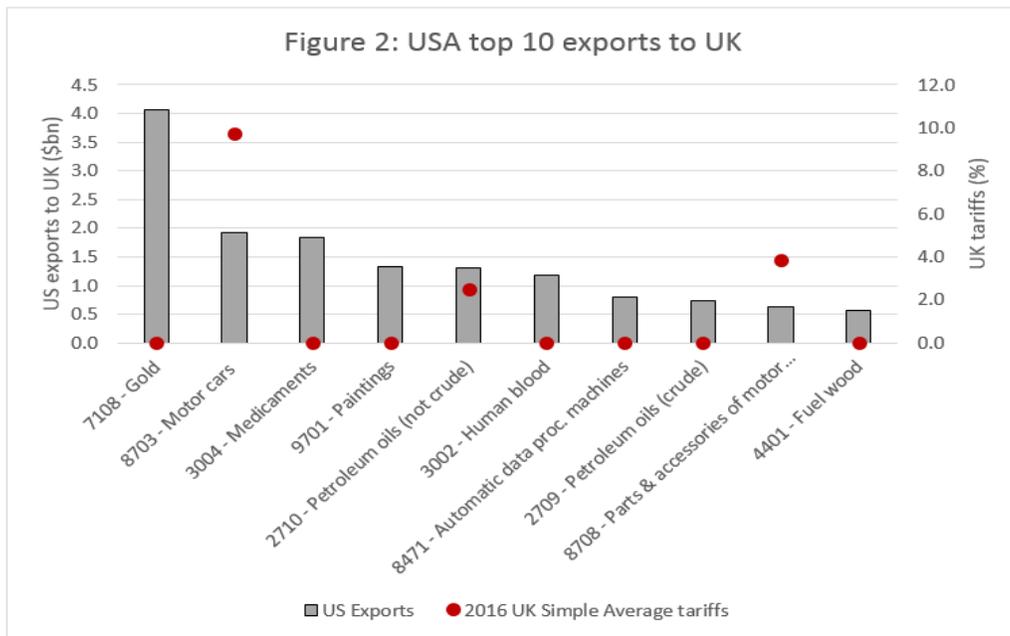
⁴ Source: Financial Times FDImarkets database.

Roughly 50% of what the UK exports to the US already faces zero tariff; a further 41% faces tariffs of less than 5%. Similarly, figures apply to US export to the UK. Hence, although tariffs are low on average there is some variation across sectors. By HS 2-digit the three sectors most highly protected by the US in 2016 were tobacco products (41.2% average tariff), sugars and sugar confectionery (18.9% average tariffs) and dairy products (17.6% average tariffs).

Breaking it down further, Figure 1 and 2 display the UK and US top 10 exported products to each other at HS 4-digit level, with the corresponding tariffs they face in the other's market. In both cases, 7 out of the top 10 products face low or zero tariffs in the other's market. For the UK, only petroleum oils and nucleic acids face tariffs over 3%, with motor cars facing tariffs of 2.5%. In the UK market, US exports of motor cars face tariffs of around 10%, and parts and accessories of motor cars face tariffs of around 4%.



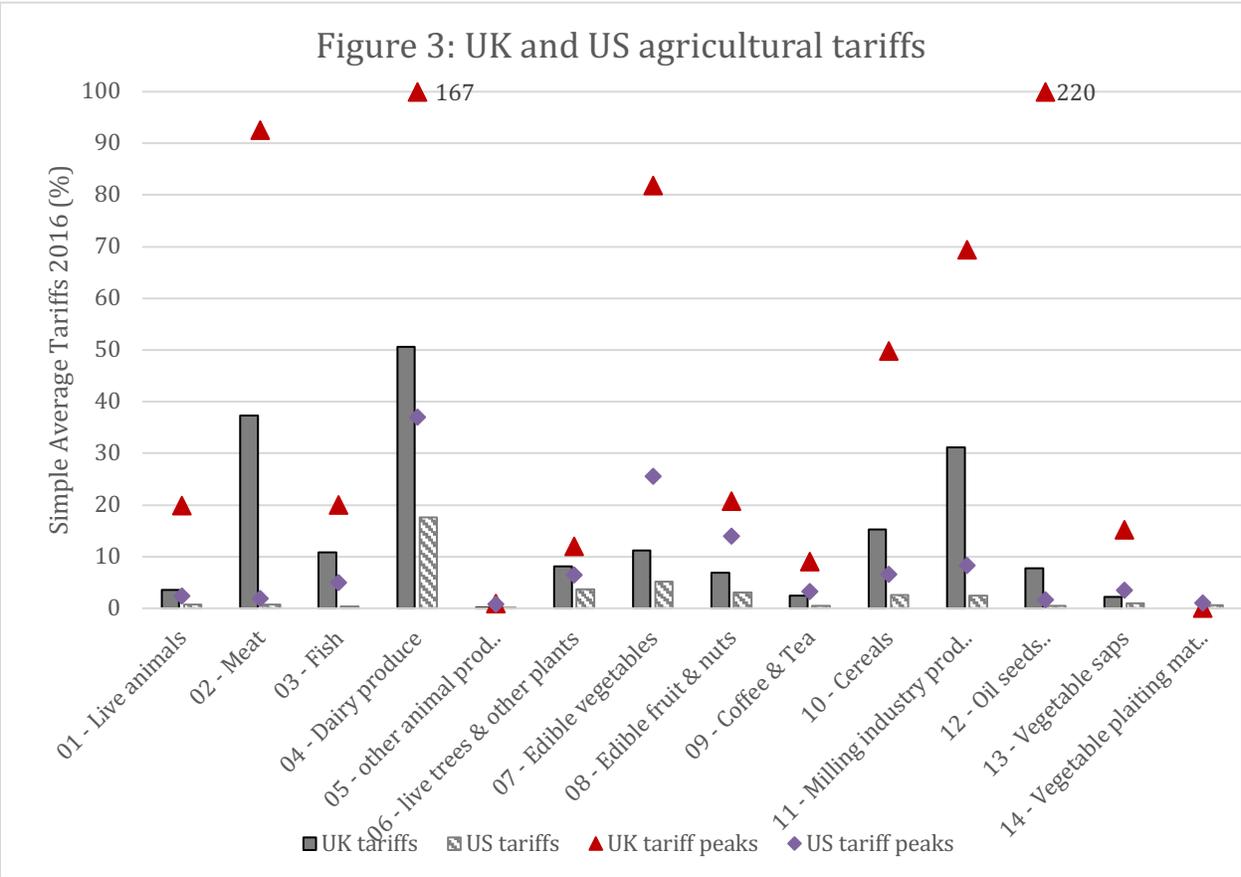
Source: Trade data from UN Comtrade, HS 2012, downloaded from WITS. 4-digit codes aggregated from 6-digit HS codes. Trade values are averages for 2015-2017. Tariff data from TRAINS, accessed through WITS. Tariff rates are simple averages for 2016 including ad-valorem equivalents.



Source: Trade data from UN Comtrade, HS 2012, downloaded from WITS. 4-digit codes aggregated from 6-digit HS codes. Trade values are averages for 2015-2017. Tariff data from TRAINS, accessed through WITS. Tariff rates are simple averages for 2016 including ad-valorem equivalents.

Agricultural products

Figure 3 gives average UK and US tariffs on agricultural products (HS codes 01 to 14), with corresponding tariff peaks evaluated at the 6-digit level within each product group. UK tariffs on agricultural products are considerably higher than US tariffs, with UK tariff peaks reaching 220% for sugar beets and 167% for whey products.



The first thing to say on goods is that the UK needs an agreement more than the US, although the tariffs it faces are relatively low. The US on the other hand may not need the UK, but there are some juicy tariff peaks on the UK side, most notably on agriculture, which the US may want to pursue. And this is not accounting for the level of NTBs on both sides.

Trade and Market Opportunities

In order to understand the possible opportunities, it is first important to understand the structure of trade between the US and the UK. The tables below give the top 10 sectors (out of 99 possible HS 2-digit sectors) imported by the UK from the US, and by the US from the UK. The figures are based on average trade 2014-16.⁵ Several points emerge from these tables:

⁵ In principle the reported value of UK imports from the US for a given product should equal the reported value of US export to the UK of that product. In practice there may be quite substantial variations in what is reported. For example the US reports that it imported \$1.4 billion in HS88 from the UK, while the UK reports that it exported \$3.3 billion. The figures in the tables are based on reported imports by each country. It is generally assumed that customs authorities have a greater obligation to track imports as opposed to exports and that import data is therefore more reliable

- For both countries imports and exports are quite highly concentrated. Hence the top 10 sectors account for nearly 80% of imports from each country.
 - Similarly, if we take HS 6-digit trade (so now over 5000 products), the top 100 products imported by the UK from the US, and by the US from the UK in each case account for about 70% of all imports from each other.
- While recognising that this is at a pretty aggregated level (HS 2-digit), there is a substantial overlap in what the UK and the US import from each other. Eight of the sectors overlap. This can also be seen by the fact that the export share are also high for most of the sectors which have high import shares.
 - Out of the HS 6-digit top 100 imports that each country imports from each other, there are 53 6-digit products which overlap. Again suggesting commonality of interests.
- Approximately 70% of the goods traded between the US and the UK are in high tech or medium high-tech sectors (based on the OECD STAN classification).

This suggests that (a) with respect to trade in goods there is likely to be overlap in each country's strategic interests; (b) those interests likely to have a fairly narrow sectoral focus; (c) probably a high focus on higher technology sectors. Note - these are typically sectors in which supply chains are probably more complex, where services inputs may be more significant and where regulatory issues may be important.

Table 2: Top 10 HS 2-digit sectors imported by UK from US

HS Code	Product Name	UK Imports (\$bn)	Imports Share	UK Exports (\$bn)	Exports Share
84	Reactors, boilers, machinery...	15.4	26.8%	10.9	17.0%
88	Aircraft, spacecraft	8.8	15.4%	3.3	5.2%
71	pearls, precious metals, jewellery	5.0	8.8%	1.9	3.0%
85	Electrical machinery & equipment	4.0	7.0%	3.2	5.0%
90	Optical, photographic, medical	3.3	5.8%	3.6	5.6%
30	Pharmaceutical prods	2.5	4.3%	9.3	14.3%
27	Mineral fuels	2.2	3.8%	3.8	5.9%
97	Works of art	1.7	2.9%	4.6	7.2%

39	Plastics	1.3	2.2%	0.9	1.4%
44	Wood and articles of wood	0.9	1.6%	0.0	0.0%
	Total	45.0	78.6%	41	64.5%

Table 3: Top 10 HS 2-digit sectors imported by US from UK

HS Code	Product Name	US Imports (\$bn)	Imports Share	US Exports (\$bn)	Exports Share
84	Reactors, boilers, machinery...	8.4	16.5%	6.0	11.5%
87	Vehicles	8.2	16.2%	3.0	5.6%
30	Pharmaceutical prods	4.8	9.5%	3.3	6.3%
27	Mineral fuels	4.2	8.3%	2.1	3.9%
29	Organic chemicals	3.8	7.4%	1.1	2.0%
90	Optical, photographic, medical...	3.3	6.5%	2.8	5.3%
85	Electrical machinery & equipment	2.6	5.2%	3.8	7.3%
22	Beverages, spirits and vinegar	2.0	3.9%	0.5	0.9%
97	Works of art	1.8	3.5%	3.0	5.6%
88	Aircraft, spacecraft	1.4	2.7%	9.9	18.9%
	Total	40.6	79.6%	35.4	67.3%

One method of evaluating how the UK could benefit from a trade agreement with USA is to identify the products where the UK currently appears to be underperforming in the US market. It should be noted that the analysis given here is preliminary and with a focus on goods trade. We strongly recommend that a more detailed analysis should be undertaken building on the principles outlined below.

In table 4, we take all the HS 6-digit products where UK exports to the world are greater than \$0.5B (average over 2015-17), and analyse the change in UK performance in the US market for these products over the period 2012-2017. The aim is to identify products with high UK exports globally, but where its performance in the US market may be lower than the changes in demand in the USA. We compare years 2012 and 2017 and evaluate, for each product, whether its share in UK exports to USA has increased or decreased (denoted by 'positive' or 'negative') over the period; and then compare this to changes in USA's demand over the period (where

'positive' indicates that the share of that product in USA's demand (imports) has increased and vice versa for 'negative').

The first number in each cell represents number of products that fall into that category. The second entry in each cell represents the share of these products in the UK's total exports to USA. In the bottom right cell the bracketed numbers give the number of products and shares of these products where the relative change in UK's exports is greater than the overall change in USA's demand.

Table 4: Goods Export opportunities for the UK

Comparing 2012 with 2017		Change in UK's Export Share to USA	
		Negative	Positive
Change in USA demand	Negative	Retreat 33 14.56%	Declining Star 16 2.28%
	Positive	Missed Opp. 20 14.50%	Rising Star 53 (35) 34.63% (30.57%)

N.B. This table is based on 122 HS 6-digit products where UK's average annual exports to the world for years 2015-2017 was at least \$0.5 bn.

The 'Rising Star' products are those where relative US demand is growing, and where their share in UK exports to USA is rising. There are 53 products in this category, accounting for around 35% of UK's total exports to USA. Further, for 35 of these products, accounting for over 30% of UK total exports to USA, the UK is performing particularly well: the increase in the share of these products in UK's export is greater than the increase in the share of these products in US demand. Machinery (HS84), Vehicles (HS87) and Pharmaceuticals (HS30) account for over 65% of the total share of these products. In turn this suggests that for 18 products, while UK exports are proportionately rising, this may be driven entirely by changes in US demand, as opposed to changes in UK competitiveness.

We can also see that there are 20 products in the category 'missed opportunities' where relative US demand is growing but where their share in UK exports is declining. These are growing US markets where the UK appears to be doing less well. Machinery (HS84), Optical, photographic, cinematographic (etc.) instruments and apparatus (HS90) and precious metals (HS71) make up half of these products.

In the preceding, we examined UK performance in the US market relative to changes in US demand. Another way of considering in which products or sectors the UK may seek to derive benefits from more integration with the US is by looking for products where the UK is globally successful, but less so in the US market.⁶

We do this in Table 5, but on a narrower range of products. Here we have taken all products where UK exports are greater than \$0.5B, and where US imports are greater than \$0.5B. For these products we have then calculated the UK's Revealed Comparative Advantage (RCA) in each product, and also the UK's Revealed Market Access indicator. The former (the RCA) is measured by the ratio of the share of the UK's export of a product to the share of that product in the world's total exports. An RCA above 1 shows that the share of that good in the UK's exports is bigger than the share of that good in world exports and, in such cases, the UK is said to have a revealed comparative advantage in that product. The latter (the RMA) compares the UK's level of market access in the US market with the level of access into the world as a whole. An RMA below 1 suggests that the UK may be facing more market access obstacles in the US market than in the world market, indicating either higher barriers to USA (though these could include consumer taste differences) or poor competitiveness, or the effect of distance. We would expect the "gravity" effects from distance to pull down our share in this region and evidence suggests that this effect remains strong. Table 5 only includes those products where the UK RCA is greater than 1, and where the RMA is less than one, and where US tariffs on average are greater than 3%.

We already know that the UK is relatively competitive in these products (from the RCA) which suggests that the low market access is more likely due to trade barriers of some sort. In this case, we focus on products where USA's tariffs are relatively high in order to identify sectors where there could be potential for increased market opportunities for the UK, if tariffs were reduced.

There is no clear pattern in the type of products where the UK appears to be underperforming in the US market; they range from jewellery to chocolate. As mentioned, there could be many reasons why UK exports to the USA is lower than we would expect, some of which cannot be addressed through a trade agreement. However, at least in some cases, particularly animal fodder and food preparations, tariffs are high and so a reduction in these tariff rates could make a difference to UK's exports.

The lesson here is that, after allowing for tariffs and competitiveness we are left with two possible explanations for an RMA less than one: gravity and Non-Tariff Barriers. This suggests that the next step would be to talk to sector producers to find out whether there are significant

⁶ Our procedure was to select products where: 1. the UK exports at least \$0.5bn to world annually, 2. the US imports at least \$0.5bn from the world annually, 3. UK RCA>1, 4. UK RMA to USA<1 (lower market share in USA than world in general), 5. US applied tariffs are at least 3% or higher

NTBs that they know of. If such NTBs are identified they would clearly be targets for negotiators to reduce.

Table 5: Potential market opportunities for the UK in USA

Product	UK exports to Rest of World (\$bn)	UK exports to USA (\$bn)	UK Revealed Comparative Advantage	UK Revealed Market Access	US tariffs (2016)
711319 - Jewellery of precious metal	4.7	0.3	2.3	0.5	5.8
210690 - Food preparations	1.1	0.1	1.3	0.5	10.7
382490 - Other chemical products	0.9	0.1	1.1	0.5	4.2
230990 - Prepared animal fodder	0.9	0.0	2.2	0.2	24.7
380892 - Fungicides	0.6	0.0	2.3	0.2	3.4
180690 - Chocolate	0.5	0.0	1.3	0.2	8.9
390690 - Acrylic polymers	0.5	0.1	1.3	0.7	3.5

N.B. all values except tariffs are based on averages for 2015-2017.

We identify products where the UK's exports to the world and US' imports from the world are relatively high (defined as average annual exports/imports of at least \$0.5bn). We then look only at those products where the UK is relatively competitive (RCA above 1), and where the UK's RMA in the US market is below 1, and where US average tariffs exceed 3%

Other Indicators

Table 6 goes on to list some further indicators that can be useful when evaluating the potential costs and benefits of a trade agreement.

The second and third columns give two estimates of export similarity, both using the Finger-Kreinin index. The first estimate measures the degree of similarity between the UK and the US' trade structures. The higher the index, the higher the degree of overlap between the countries, which in turn, suggests a higher possibility for trade creation on both the production and consumption side. It also might indicate potential for greater supply chain integration within the same industries. In this index, the degree of similarity is independent of the overall volume of trade as this indicator is focused on the structure of trade.

The second Finger-Kreinin index estimates the degree of overlap between UK's exports to USA with the world's exports to the US. This helps evaluate the UK's degree of competitiveness / complementarity with respect to the world's overall trade with the US. Another way of thinking about this is that it measures the similarity between what the UK exports to the US, with what the US imports from the world. A high degree of overlap could suggest potential for the UK to increase its market share as a result of improved access, or following any increases in UK competitiveness.

Another possible consequence of lowering trade barriers via a trade agreement are the possibilities for greater supply chain integration. This is something which it is difficult to establish

without much more detailed firm level data and specialist industry knowledge. However, the evidence does suggest that, at least in certain industries, supply chain integration takes place within industries and might therefore be captured by measuring the extent of intra-industry trade.

The Intra-Industry Trade Indicator (IIT) measures the overlap of imports and exports at a given aggregation level. That is, the extent to which two countries are simultaneously trading the same product category. A high degree of overlap would suggest trade dominated by trade in varieties or trade in intermediates further suggesting value chain activity.

Finally, the Trade Intensity Index Indicator (TII) identifies the extent to which a given country's value of trade is more concentrated with respect to a particular partner country or region, in comparison to its trade with the rest of the world. If the index is greater than 1, the two parties may be "natural trading partners," which might suggest less scope for trade diversion.

Table 6: Other indicators

Country	UK's share in USA's imports	UK and USA export similarity to world	UK and world export similarity to USA	Intra-Industry Trade	Trade Intensity Index
USA	2.4%	52.0%	43.3%	50.1%	1.07

N.B. Trade data from UN Comtrade, HS 2012, downloaded from WITS. All values are based on averages for 2015-2017.

The Intra-Industry Trade index is a weighted average based on HS 4-digit level of aggregation.

Overall, the UK and US production structures are quite similar, judging by the relatively high overlap in the products exported by the UK and USA to the world, (for comparison the highest figure we have observed is 65% (for EU-US)). Further, the high IIT indicates that the two countries are quite well integrated in each other's supply chains, and, perhaps unsurprisingly, from the TII we see that the UK's trade is slightly more concentrated on the US market compared to the trade of the world with the US. The UK is just about the US' average trader.

Value chains:

An issue which is likely to be important and which we have mentioned earlier is the extent of supply chain integration between the UK and the US, and the scope for further supply chain integration. This is difficult to establish by simply looking at the trade data. Nevertheless, some preliminary issues can be highlighted.

Table 7 draws on the OECD's TiVA database. We can see that just under 60% of UK exports to US, and US exports to the UK are intermediate goods. Similar figures apply for imports. This

can be seen by sector in the first two columns of the table below, which gives the breakdown by manufacturing sector. So for example, if you take UK exports to the US in agriculture, 72% are intermediate exports and 49% are intermediate imports (conversely 49% of US exports to the UK are intermediates, and 72% of US imports from the UK are intermediates). All this indicates that existing trade is feeding substantially into supply chains in both directions.

Table 7: Intermediates and Services in UK and US trade

	UK to US		UK	US
	Share of Intermediate Exports	Share of Intermediate Imports	Dom Serv VA share of exports	Dom Serv VA share of exports
Agriculture, hunting, forestry & fishing	0.72	0.49	0.25	0.28
Mining and quarrying	0.98	0.92	0.13	0.18
Food, beverages and tobacco	0.34	0.27	0.28	0.36
Textiles, leather and footwear	0.17	0.08	0.26	0.29
Wood & products of wood and cork	0.74	0.77	0.21	0.30
Pulp, paper, printing and publishing	0.72	0.65	0.26	0.31
Coke, petroleum products, nuclear fuel	0.55	0.51	0.10	0.19
Chemicals and chemical products	0.63	0.73	0.23	0.27
Rubber and plastics products	0.81	0.81	0.21	0.27
Other non-metallic min. products	0.84	0.81	0.25	0.28
Basic metals	0.94	0.95	0.23	0.28
Fabricated metal products	0.91	0.74	0.16	0.23
Machinery and equipment, nec	0.78	0.50	0.18	0.21
Computer, Electronic, optical	0.49	0.54	0.17	0.14
Electrical machinery	0.51	0.63	0.20	0.20
Motor vehicles	0.42	0.37	0.23	0.26

Other transport equipment	0.39	0.43	0.26	0.22
Manufacturing nec; recycling	0.27	0.43	0.23	0.24

The last two columns capture the extent to which domestic services are used in UK and US exports of manufactures respectively (this is sometimes referred to as mode 5) to the world. Overall the share of domestic (i.e. UK) services embodied in UK exports to the world is 52%. The corresponding figure for the US is 50%. In part this is because of the high shares of services trade, which have a lot of domestic services embodied in them. However, in part this reflects the share of services in manufacturing / industry. This can be seen from the last two columns of the table below. So, for example, in chemical products, 23% of the value of UK exports to the world is derived from domestic services. For the US the figure is 27%. Hence, in considering the possible impact of a US-UK agreement on supply chains this indicates the importance of also considering the input of services and how they may be affected by any agreement.

Earlier we considered the average extent to which there was intra-industry trade between the US and the UK. In the table below we unpick this and provide the IIT index for each of the top 10 sectors exported by the UK to the US. For comparative purposes we also give the figures for the EU and Japan. The index is reported at the 2-digit level, while calculated at the 4-digit. What emerges from this table is that for many of these industries levels of intra-industry trade are high. This will be partly driven by trade in similar but differentiated 'final' products, but is likely also to reflect supply chain trade. For seven of the sectors IIT is highest with the EU, for two sectors it is slightly higher with the US, and for HS88 (aircraft, spacecraft etc), it is significantly higher with the US. This suggests that UK firms are likely to be already integrated to some degree in US supply chains (and possibly more so than with respect to Japan), and that there may be scope for greater integration and gains from that integration arising from reducing trade barriers between the US and the UK. However, as earlier, those barriers are not likely to be tariff barriers, they are more likely to be driven by regulatory differences, and possibly also barriers to services related to these manufacturing industries. These are the barriers which are more challenging to reduce.

Table 8: Intra-Industry Trade index between the UK and selected partners - 2017

HS Code	Product Description	EU	J	US
84	Machinery and mechanical appliances;	0.63	0.41	0.64
87	Vehicles	0.49	0.40	0.48
30	Pharmaceutical products	0.71	0.60	0.37
27	Mineral fuels, mineral oils	0.46	0.12	0.21
29	Organic chemicals	0.62	0.38	0.48
90	Optical, photographic, cinematographic,	0.80	0.52	0.74
85	Electrical machinery and equipment...	0.69	0.44	0.76
22	Beverages, spirits and vinegar	0.45	0.12	0.33
97	Works of art, collectors' pieces and antiques	0.53	0.63	0.43
88	Aircraft, spacecraft, and parts thereof	0.20	0.30	0.61

Services Barriers

Turning to services we use the OECD's Services Trade Restrictiveness Index to compare the barriers to services trade between the UK and the US. On the one hand, where the UK has strong trade performance and lower STRI than partners, this could *prima facie* be an indication that UK has a comparative advantage in this sector and could increase exports if the other party lowers barriers. On the other hand, if the UK is already very open it has less bargaining power to make the partners open their markets more.

The UK's largest services exports are business services and financial & insurance services, and table 9 gives STRI for some of these sectors. Although overall US has a higher STRI than the UK, we see that it differs between sectors. UK is more liberal in banking and insurance sectors,

whereas there are more restrictions in the UK market in accounting and architecture services. This could provide leverage in a negotiation, whereby the UK could push for better access in financial services, in exchange for granting better access in some of its professional services to US suppliers.

Table 9: Services trade restrictiveness index 2017

Sector	US	UK
Accounting	0.17	0.32
Architecture	0.19	0.25
Engineering	0.22	0.2
Legal	0.2	0.18
Motion Pictures	0.16	0.21
Broadcasting	0.26	0.2
Sound recording	0.17	0.14
Telecom	0.12	0.17
Air transport	0.53	0.41
Maritime transport	0.37	0.21
Rail freight transport	0.16	0.19
Road freight transport	0.17	0.21
Courier	0.37	0.19
Distribution	0.16	0.12
Commercial banking	0.22	0.18
Insurance	0.29	0.16
Logistics cargo-handling	0.24	0.18
Logistics storage and warehouse	0.21	0.17
Logistics freight transport	0.22	0.16
Logistics custom brokerage	0.24	0.16
Construction	0.25	0.17
Computer	0.18	0.2

Source: OECD's Services Trade Restrictiveness Index (STRI). Zero represents an open market and one represents a market completely closed to foreign services providers.

An overall assessment drawing on this submission and the UKTPO Briefing Paper 20

- A few high tariff peaks apart notably in agriculture, MFN tariffs are low (more so on the US side) so the main focus on goods is likely to be on regulation and non-tariff measures.

- Interests are likely to have a fairly narrow sectoral focus; and there is likely to be a strong focus on the higher technology sector and on services.
- High-tech goods and services are typically sectors in which supply chains are more complex, and where regulatory issues with regard to goods and services, as well as technical standards and conformity assessment are more likely to be important.
- Given the differing approaches to regulation in each country finding agreement on these issues may be challenging.
- In its desire to show success in pursuing an independent trade policy, the UK will agree to a relatively shallow—or a relatively disadvantageous—agreement.

ANNEX

UKTPO Briefing Paper 20, July 2018,

Marc Busch, Michael Gasiorek, Peter Holmes, J. Brad Jenson, Rod Ludema, Emily Lydgate, Anna Maria Mayda, Pietra Rivoli, Jim Rollo, Stephen Weymouth, Rorden Wilkinson and L. Alan Winters

The Future of US-UK Trade: What case for a bilateral trade agreement?

Key Analytical Points

- There is public support for a US-UK trade agreement, but this sits alongside worries about existing trade agreements, particularly over NAFTA in the US, and is contingent on the kind of regulatory framework pursued.
- Seeking an agreement allows both countries to present themselves outwardly as pursuing a sovereign policy in their own best interests as well as constructive members of a liberal world trading order.
- Any meaningful agreement (economically as opposed to politically) will need to deal with the barriers to trade in services, and the regulatory barriers within specific manufacturing sectors. Given the different approaches to regulation, this may be challenging.
- Among the most important of challenges in negotiating a US-UK trade agreement will be managing the trade implications of standards and technical regulations. The UK's post-Brexit regulatory regime risks being pulled in different directions by the EU and the US. A solution will depend on the UK's capacity to navigate the demands of both of its trading partners.
- The UK will likely have to settle its position in the multilateral trading system before meaningful and substantive negotiations with the US can commence.

Conclusions

While political and popular support may exist for negotiating a trade agreement between the US and UK, and there are reasons to suggest that gains could accrue to both sides, the major sticking points are likely to be regulatory. In turn, these sticking points are likely to have a significant bearing on the extent to which British public support endures, particularly if the UK government pushes forward with an approach that jars with public perceptions of sovereign decision-making or sensitivities around food standards and health but which are consistent with US approaches.

In negotiating with major trading partners after Brexit, the UK is likely to be a price taker—that is, its negotiating position will be relatively weak compared with bigger economies like the US and weakened because it will need to negotiate new agreements to ensure that UK goods and services find export markets as well as to appease leave-voters in the UK referendum. This means that the UK will probably have to accept binding obligations on regulations and standards that tie its hands in setting domestic regulations on matters as diverse as animal hygiene and weights and measures. And given that the UK's immediate objective is negotiating a trade deal with the remaining EU27 that covers the transition from a deep association with its biggest trading partner, the price that it takes will initially have to be acceptable to the European Commission.

Yet, in doing so the UK's capacity to negotiate a deal with the US that is anything more than an expression of mutual interest is likely to be limited, for the medium term at least. Thus, it may be prudent for the UK to resist the pressure to choose between regulatory regimes—particularly if public opinion turns—and prioritise reaching an agreement with its European trading partners first. The UK can then start work on a trade arrangement with the US that starts in those areas where agreement is likely and where difficult-to-swallow regulatory frameworks do not exist, such as in some services sectors. Whatever the UK decides, as with much else in its departure from the EU, artful diplomacy will be required to resolve its trading future. For the US, the picture is likely to be slightly different. While the benefits of a bilateral agreement with the UK may be limited, in an era when so many of its established trade relationships are being put to the test, it may be prudent—politically at least—to signal a concomitant ability to negotiate new agreements that are perceived to be more beneficial.

NOTE ON THE ANALYSIS

Analysis of the data has been conducted using Tradesift software: <https://www.tradesift.com/>

CONTACT

UK Trade Policy Observatory

E: uktpo@sussex.ac.uk

T: 01273 873836

