UKTPO Response to

Department for International Trade open consultation on

The UK Global tariff

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Introduction

This document comprises the UK Trade Policy Observatory's (UKTPO) response to the Department of International Trade's 'Public Consultation on the UK Global Tariff'.

In preparing our response we have borne in mind the principles set out in the Taxation (Cross-border Trade) Act 2018 which are that in setting tariff rates the government needs to bear in mind: the interests of consumers and producers in the UK, the desirability of maintaining and promoting the external trade of the UK and the productivity of the UK, and the extent to which the goods concerned are subject to competition. The government also aims to balance strategic trade objectives such as future free trade agreements and a commitment to developing countries to reduce poverty through trade.

Our response aims to respond to the three specific amendments which are proposed in the consultation document which are:

1. Simplifying and tailoring the tariff. The Government is considering:
    a. Removing tariffs on goods with particularly low tariffs currently (less than 2.5%).
    b. Rounding tariffs down to the nearest standardised band.
    c. Taking steps towards agricultural tariffs that are applied as single percentages.
2. Removing tariffs on key inputs used in the production of other goods.
3. Removing tariffs where the UK has zero or limited domestic production.

Our response is organised into 7 sections, listed below. In the first section we provide a list of our principal recommendations. Section 2 comprises a summary of the key areas of analysis undertaken and provides an outline discussion in support of our recommendations. In support of these recommendations we have undertaken some detailed empirical analyses. These detailed analyses comprise the subsequent sections, which in turn deal with the implications of simplifying and tailoring the tariff, and notably the issue of tariff banding; the impact of removing tariffs on key inputs used in the production of other goods; the impact on prices, variety, and finally we have an additional section on tariff on environmental goods.

1. List of recommendations:

Recommendation 1: To consult widely not just on tariff policy but also on policy with regard to non-tariff measures, and the coherence of tariff policy and policy on non-tariff barriers with domestic policy objectives**.**

Recommendation 2: For an initial period to maintain as much as possible the existing structure of applied tariffs. This is more likely to maintain business as usual for firms, will have less of an impact on Northern Ireland, and will allow more negotiating flexibility in FTA negotiations. The proposal from DIT for Tariff simplification / banding on the grounds of eliminating nuisance tariffs is not a sufficient justification for the proposals that have been made.

Recommendation 3: Decisions regarding the structure of applied tariffs should be made bearing in mind the possible regional consequences of any proposed changes**.**

Recommendation 4: Reducing firms imported input costs in order to increase their competitiveness either domestically or in export markets is potentially a sensible strategy. However, this requires more detailed consideration of the effective rate of protection in given sectors and industries, and a blanket approach eg. based on the BEC classification may well not yield the desired results. There is a potential trade off with regard to domestic and international competitiveness. Hence, more detailed analysis is required.

Recommendation 5: Analysis of the impact on prices and households of the proposed tariff changes should be undertaken at a detailed level in order to assess the possible benefits to UK consumers**.**

Recommendation 6: Before eliminating tariffs on goods not produced in the UK the impact on developing and least developed countries should be evaluated**.**

Recommendation 7: We strongly support the idea of encouraging trade in environmental goods, but suggest that any such policy should not be based on the existing lists. Instead the government should produce a list based more on scientific evidence and less based on domestic political economy considerations. Such a policy is an opportunity for the UK government to show innovation and leadership in formulating a more climate friendly trade policy**.**

Recommendation 8: We recommend the government develops a broader approach to an environmentally friendly or climate friendly trade policy which should consider both tariffs and non-tariff barriers to imports and exports, and which should be integrated with regard to the government's domestic environmental policy.

1. Summary of analysis and recommendations

In this section we summarise a core set of issues we urge DIT to bear in mind in considering the future tariff structure. We also provide an explanation for our key recommendations listed above.

2. We welcome the opportunity to consider and respond to the government's consultation on the UK Global Tariff. We would like to underline that trade policy should be seen as part of overall economic policy and needs to be coherent with it. In turn with respect to trade policy, the UK's strategic trade objectives and its commitments to developing countries, the UK's tariff policy is but one component. Tariffs are an important element of any government's trade policy, and will of course be part of any negotiations over free trade agreements. However, in today's world and particularly for the UK, the key barriers to trade rarely lie in the tariffs that are levied. For goods trade, non-tariff barriers and notably regulations and standards are in many cases more significant. The UK is primarily a service economy, and with regard to services trade the primary barriers centre around diverging regulations. We urge DIT, therefore, to consult widely on these more significant trade policy issues and to avoid focussing overly on the issue of tariffs both in its public consultations and in its own work.

Recommendation 1: To consult widely not just on tariff policy but also on policy with regard to non-tariff measures, and the coherence with domestic policy objectives.

3. The proposals for simplifying and tailoring the UK's tariffs, would involve changing the tariff on over 70% of the 8-digit product codes, which is over 7500 tariff lines. Similarly, the proposals for removing tariffs on intermediates could involve removing tariffs on over 5000 8-digit product codes.[1] This reveals that in terms of the number of products that will be affected the changes would be substantial indeed. This is discussed in more detail in Section 2 below. The analysis in that section also shows that the overall impact on the UK's MFN tariff will be extremely small. The weighted average applied tariff would go down from 2.5% to 1.8%, and the simple unweighted average from 7.6% to 6.6% if we consider all goods, and if we exclude non ad-valorem tariffs the unweighted average would fall from 4.8% to 3.9%.

   This should lead to the following question: Given the large number of products for whom the tariffs would change, and given the small net effect of the change, under what circumstances is deviating from the existing tariff structure worth doing? Or alternatively put, what are the costs and benefits of such a change. The proposed benefits of the proposed simplifications are first to remove 'nuisance' tariffs (of 2.5% or less), and secondly that tariff banding will 'support UK importers and remove complexity'. The proposed benefits of reducing tariffs on intermediates are to lower input costs and thus support UK manufacturing. However, there are also costs associated with these changes. In our view the benefits do not outweigh the costs, and this is explained below:

   a. For producers all tariffs are, in some sense, a nuisance. Hence eliminating those that are already low could be seen as a straightforward gain, because that nuisance is being eliminated and the level of protection is very low. However, for a producer the

[1] Where intermediates are defined using the BEC classification scheme.

nuisance associated with a tariff is both to do with the direct impact on price, and also to do with the paperwork/bureaucracy involved.

Approximately 50% of UK goods exports are destined for the EU. The more UK MFN tariffs differ from EU MFN tariffs, the more important will be 'rules of origin' in any future free trade agreement with the EU. The more important are rules of origin the greater the administrative nuisance cost. If the UK introduces widespread changes into its tariff structure, it is inevitably increasing those nuisance costs – not just for those goods where tariffs are less than 2.5% but for almost all goods.

This is not an argument for saying that the UK should blindly and forever apply the EU's entire MFN tariff structure in order to try and minimise the administrative costs of rules of origin. It is an argument, however, for saying that negotiating a free trade agreement with the EU over the course of no more than a matter of a few months is already extremely ambitious. Rules of origin are frequently a contentious issue in FTA negotiations which are hard to resolve. The greater the extent to which the UK continues to maintain it's existing tariff structure, the easier those negotiations are likely to be. This does not preclude the UK from subsequently lowering its applied tariffs should it wish to do so in a more considered fashion.

More than that, it also opens up the possibility of the UK showing innovation and leadership in formulating free trade agreements by suggesting some new approaches to the issue of rules of origin. For example, it may be possible to negotiate an intermediate position where the UK largely applies the existing tariff structure and where it does so there is a lighter touch ROO regime. The UK might wish to explore with the EU the possibility that in specific sectors where the UK chooses to have the same MFN tariff as the EU (and subject to some either de minimis or tolerance clauses with regard to intermediate inputs) that rules of origin may not be required, or that the administrative requirements are simplified.[2] Mechanisms could then be put in place for how to deal with future changes in UK tariffs and the implications for rules of origin. The more the UK deviates from the existing structure the less likely it is that this could be possible, and the more likely it is that negotiations at this stage will prove problematic .

b. Lowering the UK's applied tariffs will have implications for trade between Great Britain and Northern Ireland. Under the Protocol to the Withdrawal Agreement tariffs would need to be levied on all goods being exported from GB to NI and which are 'at risk' of then entering the Republic of Ireland.[3] In the event of a free trade agreement with the EU, this could apply to all goods where the UK's applied tariff is lower than the EU's applied tariff. However, it might not need to apply to those goods where the applied tariffs are the same. There is currently considerable uncertainty as to how the border between GB and NI will operate, and on which

[2] Of course even identical MFN tariffs do not solve all problems with rules of origin which may be required for example with regard to trade remedy measures. Nevertheless the greater the degree of divergence the more likely they are to cause issues.

[3] See for example: https://blogs.sussex.ac.uk/uktpo/2020/01/14/determining-goods-at-risk/ ; https://blogs.sussex.ac.uk/uktpo/2019/12/09/eu-tariffs-could-cover-75-of-imports-of-goods-into-northern-ireland/ and https://blogs.sussex.ac.uk/uktpo/2019/10/24/better-than-the-status-quo-for-northern-ireland-not-quite-so-simple/

goods will be deemed by the Joint Committee to be 'at risk'. If the UK government wishes to minimise the impact on Northern Ireland, there are therefore very strong grounds for at least initially maintaining as much as possible the existing tariff structure.

c. It is easy to assume that low tariffs have little effect and therefore it is relatively costless to remove them. In many cases this may be correct. However, in industries and/or in firms with low profit margins removing even a low tariff could have significant consequences. This is not an argument for necessarily retaining those tariffs, but it is an argument which suggests that low tariffs can matter. The government is hoping to negotiate a series of free trade agreement over the next three years. If all tariffs which are currently less than 2.5% are removed, this would remove tariffs on over 1000 8-digit product lines. In the hard world of commercial diplomacy these are 1000 product lines that the UK could have used as some form of bargaining chip, and which would be removed. If these tariffs are retained then they could help to improve market access for UK exporters arising from future negotiated free trade agreements.

Recommendation 2: To initially maintain as much as possible of the existing structure of applied tariffs. This is more likely to maintain business as usual for firms, will have less of an impact on Northern Ireland, and will allow more negotiating flexibility in FTA negotiations.

4. In the governments' principles underlying the consultation the objective is 'to bear in mind the interests of consumers and producers'. While this is laudable, it is also vague and open to considerable interpretation. There are various plausible consumer interests – price, quality, variety, public health, and a given tariff change may be good for consumers in one dimension but not in another, and there may be different interests in the short run versus the longer run. For example, and as we discuss below, reducing tariffs could reduce prices but could also reduce variety. Similarly, with regard to producers the government needs to consider the coherence of a tariff policy with regard to its strategic structural objectives regarding the future direction of the economy. Not all producers will benefit from any given tariff changes and therefore the government needs to decide why it may wish to impact positively on some and not on others. These impacts may be both on different firm types within sectors, as well as across sectors. Trade policy, and within that tariff policy, should therefore be seen as part of domestic policy, and should not be made devoid of reference to domestic policy. Framed in this way, it is clear that the strategic objectives of domestic policy should first be determined, before deciding on the direction of trade policy. It would therefore have been helpful, to have a clearer sense of the domestic policy objectives in considering the tariff proposals.

   Two examples here are worth making. First, the government has indicated that amongst its economic and social policy priorities is the desire to regionally 'rebalance' the UK economy. Yet there is no sense of this in the proposed changes. If the government is indeed serious about this regional rebalancing then some assessment should be undertaken of the regional consequences of the proposed changes, and these should then be discussed with the key stakeholders and devolved administrations before decisions are made. Earlier work by the

UKTPO which looked at increases in trade costs between the UK and the EU clearly demonstrated that changes in tariffs impact differentially across regions.[4] Similarly this can be seen in the government's own modelling of for example a possible US-UK free trade agreement. Second, the government has also indicated a desire to address more satisfactorily issues of sustainability and climate change. Again, there is no indication that this has formed part of the considerations underlying the governments proposed changes. This specific issue we address in more detail in Section 7.

Recommendation 3: Decisions regarding the structure of applied tariffs should be made bearing in mind the possible regional consequences of any proposed changes.

5. With regard to the impact on producers the consultation document proposes removing tariff on intermediate inputs in order to reduce the input costs for UK manufacturing firms. This raises two broad issues. The first concerns the impact this proposal would have on average on UK tariffs, and the second concerns the extent to which this policy would be effective in supporting UK firms.

    a. With regard to the impact on average UK tariffs see Section 4 for a detailed analysis. Overall, we find that the proposed changes would be relatively modest. This partly depends on which definition of intermediates is used for the analysis. The consultation document proposed three alternatives – suspensions lists, inward processing and BEC. The broadest definition is provided by the BEC classification. On this basis eliminating tariffs on intermediates would reduce the simple average tariff from 6.6% (with the proposed tariff simplifications) to 4%, and the weighted average tariff from 1.8% to 1.3%. The reason for the modest impact is partly because of the degree of overlap between the two proposals, and partly because the remaining MFN tariffs on intermediates tend to be low.

    While the impact on average tariffs is modest, there is a bigger impact on the value of imports affected. Our analysis indicates with the existing tariffs just over 50% of the value of UK imports face a zero tariff. Based on existing trade flows the tariff simplifications/ banding proposal would increases this to just over 71%, and removing tariffs on intermediates would further increase this to around 85%. These latter figures are almost certainly an underestimate as they are based on existing trade flows. As tariffs are reduced one would expect some reorientation of trade towards the lower tariff lines, which would increase the share in the value of imports coming in duty fee. This analysis suggests that removing the tariffs on intermediates could indeed have some impact for UK producers. However, whether this is positive or negative will depend on the 'effective rate of protection'.

    b. The effective rate of protection (see Section 5) takes into account the overall impact of a given tariff structure for a firm taking into account the tariffs both on the final good and the intermediates the firm purchases. The effective rate of protection captures the effect of the tariffs on the value added of the industry. The lower is the tariff on intermediates relative to the tariff on the final good the bigger is the degree of effective protection being granted to the domestic producer selling in the domestic

[4] BP16, World Economy (2019).

market. Similarly, lower tariffs on intermediates are more likely to increase the competitiveness of the domestic producers in export markets. All this suggests that lowering tariffs on intermediates could be beneficial to domestic producers, but it also indicates that this will depend on any changes in the tariffs on final goods. As the proposals in the consultation document consider changes both in intermediate and final goods tariffs – the net effect is not clear.

We have undertaken detailed analysis using the latest UK input-output tables, and the most detailed tariff data. The results suggest that the impact of the proposed tariff simplifications/banding would result in a modest reduction in the domestic effective rate of protection from 3.9% to 3.2% for simple unweighted tariffs, and from 3.7% to 3% for weighted tariffs.

However, the effective rate of protection with just the tariff simplification/banding proposal is 3.2% (simple) and 3.01 (weighted). Compare this with the effective rate of protection when we also remove the tariffs on the (BEC) intermediate goods, which is 3.6% (simple) and 3.3% (weighted). What we find therefore, is that when tariffs on intermediate goods are also reduced the effective rate of protection is ***higher***, in comparison to the tariff-simplification/banding only proposal.

This might seem paradoxical. However, the effective rate of protection depends on the difference between the final tariff and the intermediate tariff and both are changing here, and many goods while notionally classified as intermediates may also be used by others as a final good. We recognise that the actual change in the effective protection rate will be industry and firm specific and the data are not sufficiently disaggregated to capture this. Nevertheless, the analysis sends an important message. Simply reducing tariffs on all goods classified as intermediates under the BEC classification scheme may well increase the domestic effective rates of protection and hence not provide 'support' to UK industries. On the other hand reducing tariffs on intermediates would raise the competitiveness of UK producers in export markets (albeit by a very small amount). There is therefore potentially a positive and a negative effect and the overall desirability is not clear, and especially so when the coherence between trade policy and domestic economic strategy is not clear.

In this context it is also important to underline again that the relationship between intermediate inputs and final goods is in many cases much more complex than the impact of tariffs on imported intermediate inputs. This is because there are many other non-tariff barriers to trade along the supply chain which should be considered if government policy is aimed to support producers in this way.

Recommendation 4: Reducing firms imported input costs in order to increase their competitiveness either domestically or in export markets is potentially a sensible strategy. However, this requires more detailed consideration of the effective rate of protection in given sectors and industries, and a blanket approach eg. based on the BEC classification may well not yield the desired results. There is a potential trade off with regard to domestic and international competitiveness. Hence, more detailed analysis is required.

6. Another proposal in the consultation document is to remove tariffs on the imports of goods which are not produced domestically. Although this is not stated in the consultation document presumably the justification for this is that it would have no impact on UK production but would lower the prices for UK consumers, and possibly for UK producers who are using these goods as intermediates. The latter, of course overlaps with our analysis of effective rates of protection above. Our analysis (see Section 6) identifies a possible 223 6-digit sectors (out of more than 5000) which plausibly fall into the category of goods not produced in the UK. Of these 53% are classified under the BEC classification as an intermediate good, and 45% are classified as a consumption good.

   This also raises the broader question of the impact of the proposals in the consultation document on consumers and consumer prices. Once again, we have undertaken some detailed analysis which can be found in Sections 5 and 6 of this submission, and which leads to several conclusions.

   a. We have calculated an estimated change in consumer prices for 81 ISIC 4-digit sectors (73 of which are manufacturing and 8 agricultural sectors). The average change in UK domestic prices across these sectors from applying the tariff simplification / banding proposal and eliminating tariffs on products with zero UK production would be a reduction of -0.24%. Once we weight by the share of consumption the average change in prices is -0.15%. If we then allow for the fact that UK consumers only spend around 40% of their income on goods as opposed to services we find an average impact of -0.06% on the cost of living. So while there may be some products with particularly high ad valorem equivalents which see a much larger reduction in prices we do not anticipate that the DIT proposals on average would have much effect.

   b. The calculations above were based on the change in UK MFN tariffs from non-EU countries and assumed a successful conclusion of a free trade agreement with the EU. This is of course by no means certain. If there were no agreement with the EU, the UK would then levy MFN tariffs on imports from the EU which would then result in an increase in consumer. A detailed analysis of this on the basis of the current MFN tariff structure was previously undertaken by Clarke, Serwicka and Winters (2017).[5] In that report they found that "A family's weekly shop on the final consumption goods for which we estimate tariff changes would rise by 2.7 per cent, pushing up annual spending by around £260". If we apply our current analysis, consumer prices would similarly rise if the MFN structure under the Global Tariff proposal was applied to imports from the EU. However, we find that overall, across the 81 sectors analysed, prices of consumer goods would be around 0.7 percentage points lower under the consultation proposal (i.e. rounding down tariffs and eliminating tariffs on goods with zero UK production) than they would be if the current EU MFN tariffs were applied to UK's imports from the EU.

Recommendation 5: Analysis of the impact on prices and households of the proposed tariff changes should be undertaken at a detailed level in order to assess the possible benefits to UK consumers.

[5] "Will Brexit Raise the Cost of Living", Clarke, Serwicka and Winters (2017), National Institute Economic Review.

c. It is also important to consider the impact of eliminating the tariffs on goods not produced in the UK on developing countries. Many of the agricultural products which the UK does not produce are imported from developing countries (bananas, tea, or coffee). Most developing countries currently benefit from preferential access to the UK market through the Generalised System of Preferences (GSP) or Everything But Arms (EBA) schemes. The UK government has indicated that it wishes in principle to maintain such schemes, though of course they may differ from that of the EU. The tariff preferences are in place to help poorer countries compete against richer ones. Eliminating such MFN tariffs would erode the preferences that the developing countries currently benefit from, which could be detrimental to these countries. The possibly unintended adverse effect on developing countries is another example of the point, made earlier, that trade (tariff) policy ought to be aligned with other policy objectives such as development.

Recommendation 6: Before eliminating tariffs on goods not produced in the UK the impact on developing and least developed countries should be evaluated.

d. There is another impact on consumers to be considered and that is the impact on variety. We have not undertaken empirical analysis of this but there are several points worth noting. First, that variety is much more likely to be dependent on regulations than on tariff levels. Secondly, that reductions in tariffs could increase variety by allowing for more imports of foreign varieties, or less variety if increased import competition drives reduces the variety offered by domestic producers.

7. As discussed earlier, our recommendation is that any change to the existing tariff structure should only be undertaken if there is a clear good reason for that change, and we do not think that simplification and removal of so-called nuisance tariffs constitutes a sufficient reason. One possible such reason could be to better align the tariff structure with the UK's sustainability objectives. This leads to a consideration of whether the UK should reduce import tariffs on 'environmentally-friendly' goods. Section 7 of this submissions discusses this in more detail.

    a. There are several existing lists of environmental goods drawn up variously by the WTO, APEC, the OECD and UNCTAD. Many of the goods on these lists are already included in the UK government's proposal with regard to tariff simplification or with regard to tariffs on intermediates.

    b. The average tariffs for the goods on these lists is between 2%-3%. Hence it is unlikely that even if these were the only goods which the government chose to reduce tariffs on, that this would have a big net impact on UK prices, nor on UK producers. The average share of UK imports and exports covered by these lists ranges from less than 10% (for the CLEG list), to close to 30% for the WTO 411 list. This is because (somewhat curiously) motor vehicles are included in the latter lists.

    c. The existing lists appear to have been drawn up reflecting countries' domestic priorities as much as by scientific consideration of environmental considerations.

Recommendation 7: We strongly support the idea of encouraging trade in environmental goods, but suggest that any such policy should not be based on the existing lists. Instead the government should produce a list based on scientific evidence. Such a policy is an opportunity for the UK government to show genuine innovation and leadership in formulating a more climate friendly trade policy.

d. It is important to note that encouraging trade in environmental goods is but one way of linking trade and the environment, or trade and climate change. It is extremely likely that in the near future governments will need to consider their policies with regard to trade in environmentally unfriendly goods, and for example the role of border carbon adjustments (which is a large topic in its own right).

Recommendation 8: We recommend the government develops a broader approach to an environmentally friendly or climate friendly trade policy which should consider both tariffs and non-tariff barriers to imports and exports, and which should be integrated with regard to the government's domestic environmental policy.

2. Implications of simplifying and tailoring the tariff

The consultation document proposes the following rounding:

- Removing low ('nuisance') tariffs, of 2.5% or less.
- Rounding tariffs down to the nearest standardised rate below, according to the following bands:
  - The nearest multiple of 2.5% for tariffs currently under 20% (e.g. a 19.2% tariff becomes 17.5%, a 12.3% tariff becomes 10%)
  - The nearest multiple of 5% for tariffs currently more than 20% and under 50% (e.g. 48% tariff becomes 45%, 22% becomes 20%)
  - The nearest multiple of 10% for tariffs currently equal to and above 50% (e.g. a 68% tariff becomes 60%)

Before exploring what the impact would be of making such changes, it is useful to know the current structure of EU's MFN tariffs, which we take as the starting point of the exercise. As Table 1 shows, currently, around 26% of tariff lines are zero, and a further 11.5% are below 2.5%. Of UK's imports from 'MFN countries' (i.e. countries without any preferential agreement with the UK), 50% is in products where the current MFN tariffs are zero.

Table 1: Current structure of EU MFN tariffs (2018)

Tariff brackets	Number of 8-dig tariff lines	% of all 8-digit lines	% of UK's imports from sources paying MFN rates
0%	2446	25.9%	50.4%
0.01% - 2.49%	1083	11.5%	21.0%
2.5% - 19.99%	5245	55.5%	27.6%
20% - 49.99%	504	5.3%	0.7%
>50%	180	1.9%	0.3%

N.B. Based on 8-digit tariff data from UNCTAD TRAINS (including AVEs) and trade data from HMRC Overseas Trade Statistics. Both tariff and trade data for 2018. Imports are UK's imports from countries without any preferential agreements with the UK (i.e. excludes EU, FTA countries, EBA/GSP countries). Any product where tariff data is missing has been excluded. AVEs are the ad valorem equivalent (percentage equivalent) of tariffs that are not currently expressed in percentage terms. This is explained below.

Rounding tariffs down as per the consultation proposal would see a change to around 70% of all 8-digit tariff lines. However, the majority of changes would be small: only 1.8% of all tariff lines would see a change bigger than 5 percentage points. As a result, the overall impact on UK's MFN tariff would be small.[6] Across all 8-digit tariff lines this would reduce the simple average tariff from 7.6% to 6.6%, and cut the average weighted tariff from 2.5% to 1.8%.[7] Following this

[6] Note that in this analysis we use tariffs at the 8-digit level, as this is the most detail level at which UK trade data is available. In reality, tariffs would be rounded from the 10-digit (most detailed) level. It is unlikely that this would make any significant difference to the results presented here. Our 8-difgit tariffs are calculated as unweighted averages of the component 10-digit headings.

[7] These calculations are based on UK's imports in 2018 from the group of 'MFN' countries, i.e. those countries which did not have a preferential trade agreement with the UK in 2018 or which do not trade under the EU's EBA/GSP schemes.

change, UK imports of just under £27 billion from 'MFN countries' which currently face tariffs of up to 2.5% would be tariff free. Assuming that trade flows remain unchanged from their 2018 level, there would be an overall loss of tariff revenue of around £800 million (25% of the total tariff revenue from UK's imports from 'MFN countries' or 0.1% of UK's total tax receipts[8]).

As will be discussed in further detail below, while most of the EU's tariffs are so-called ad-valorem tariffs, meaning that they are expressed as percentages of the value of the good, there are some tariffs that are levied, at least in part, as a specific cost per unit of a good. Such tariffs are called non-ad-valorem tariffs and come in many different forms. The consultation document proposes to 'take steps towards' turning these into simple percentage tariffs, which is discussed further in a later section below. Excluding any non-ad-valorem tariffs from the analysis, and applying the rounding as per above, gives changes of similar magnitude as before. The simple average MFN tariff would fall from 4.8% to 3.9% and the weighted average from 2.0% to 1.4%, with an associated loss of tariff revenue of £760 million.

3. Eliminating tariffs on intermediates – impact on nominal tariffs

The second item of consideration in the consultation document is whether tariffs should be eliminated on intermediate goods. The underlying logic of this is that cutting tariffs on intermediate goods supports UK producers since it means lower cost of the imported inputs, which in return may make producers of final goods more competitive. In this section we consider the possible extent of this proposal on nominal tariffs where we review different possible definitions of an intermediate good. In the next section we turn to the closely related topic of the effective rate of protection.

Defining intermediate goods is not entirely straight forward. The consultation document suggests three possible sources for this:

- List of tariff suspensions that currently apply on inputs to production.
- List of goods that have applied for Inward Processing.
- The Broad Economic Categories (BEC) list.

We deal with each of these lists below.

Tariff Suspensions

Tariff suspensions[9] within the EU are normally granted to raw materials, semi-finished goods or components that are not produced in the EU or where EU production is inadequate to meet demand and where it is therefore in the interests of the EU to suspend tariffs partially or totally.

Applications for tariff suspensions are submitted to a central office in each Member State, which is responsible for checking that all the necessary information has been given. Once the request has been transmitted to the Commission it is examined by the Commission with the aid of the

[8] Data on total tax receipts in 2018/2019 from statista: https://www.statista.com/statistics/284298/total-united-kingdom-hmrc-tax-receipts/

[9] For more, see: https://ec.europa.eu/taxation_customs/business/calculation-customs-duties/what-is-common-customs-tariff/suspensions_en

opinion of the Economic Tariff Questions Group (ETQG).[10] Goods imported under the suspension list are released for free circulation throughout the European Union. No suspensions are granted for finished goods, and the tariff suspensions granted by the EU have designated dates for mandatory review with a view to establish whether the suspension is still needed.

The document published by the DIT contains a list of suggested tariff suspensions, covering just under 2,500 10-digit tariff lines (out of around 16,000 tariff lines at the 10-dig level), largely replicating the EU's list of tariff suspensions.[11] However, in contrast to EU's list, DIT's list does not have any review dates and it is not clear whether the tariff elimination would be temporary or permanent.

Setting all the products on the suspension list to zero,[12] and applying the rounding down as per (1) makes only a relatively small difference to the estimates given in (1). This is largely because the items on the suspension list already have low tariffs. Only around 2% of the products on this list face MFN tariffs of over 10%. Indeed, 23% of the items have tariffs of less than 5%, and would thus be rounded down to very low tariffs (or zero) under the proposal in (1) anyway.

Setting all the items on the suspension list to zero would imply a fall in the simple average MFN tariff (across all 8-digit products) to 6.4% (compared to 6.6% with just the rounding, and 7.6% in the original MFN schedule). The weighted average would fall to 1.6% (from 1.8% with just the rounding or 2.5% in the original MFN schedule). An additional £7 billion worth of UK imports would be tariff free compared to just the rounding in (1), and there would be a loss of tariff revenue of just over £1.1 billion (assuming that trade flows remain the same as their current levels).

Excluding non-ad-valorem tariffs, implementing the suspension list would reduce the simple average to 3.7% (from 3.9% with just the rounding, or 4.7% in the original MFN schedule) and the weighted average to 1.2% (from 1.4% with the rounding and 2% in the original schedule). Tariff revenue would fall by just under £1.1 billion.

Inward Processing

The EU has a system of eliminating import duties and VAT on non-EU goods which are imported in order to be used in one or more processing operations within the EU. After the processing operations, the processed products can be either exported outside the EU, or released for free circulation in the EU. The latter would mean that import duties and taxes on the inputs must be paid. According to the EU Commission, out of €160 billion worth of EU motor vehicles exports in 2011, almost 43% (€69 billion) were produced under the inward-processing regime i.e. they were essentially cars assembled in Europe from parts and components imported from the rest of the world.[13]

There are some requirements to get authorisation for inward processing procedure. [14] These are:

a. The business must be based in the customs territory of the Union. Non-EU bodies can only use IP for non-commercial imports.

[10] See Commission Communication concerning autonomous tariff suspensions and quotas (Official Journal C 363 of 13.12.2011, p. 6) https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2011:363:0006:0017:EN:PDF
[11] There are 26 10-digit tariff lines on the EU's suspension list that are not recorded on the DIT's suspension list
[12] Note that out of the 2500 tariff lines on the suspension list, 379 are not matched with the tariff data for 2017-2018 downloaded from WITS.
[13] See: https://ec.europa.eu/taxation_customs/inward-processing_en
[14] https://ec.europa.eu/taxation_customs/inward-processing_en

b. To provide necessary assurance of the proper conduct of the operations.
c. To provide a guarantee where a customs debt or other charges may be incurred.
d. To carry out processing operations on the goods or arrange them to be carried out.

The DIT's \inward processing list contains 216 8-digit tariff lines. Setting these to zero, in addition to the suspension list and the rounding, makes essentially no difference from the results obtained when only applying the tariff suspensions list. This is partly because some items (32%) on the inward processing list are already, at least partly, covered by the suspension list discussed above. A further 54% of the items on the inward processing list have tariffs of less than 5% and there are no products listed with tariffs above 10%. It is also worth noting that UK industry will already be benefitting from some of these suspensions.

BEC categories

A third alternative to identify intermediate goods is to use the United Nations Broad Economic Categories (BEC) classification.[15] This is a widely used international product classification, which categorises goods into broad categories based on detailed commodity classifications such as the Harmonised System (HS) and the Standard International Trade Classification (SITC). The BEC classifies goods by three main end-use categories: intermediate goods, consumption goods and capital goods. In addition, it has separate categories for motor spirits, passenger motor cars and a few small unclassified items, which are used extensively by both industry and households, and can therefore not easily be separated into intermediate or consumption goods.

Using the BEC to identify intermediate goods would be the broadest definition out of the three. Of the 9,500 8-digit tariff lines, just under 5,200 are classified as 'intermediates' according to the BEC classification. While BEC is very useful, and indeed used extensively, for statistical analysis of trade flows, it employs a rather broad definition of intermediates and it is therefore less clear how suitable it is as an instrument for defining intermediates for customs purposes, or for the purposes of the proposal in the consultation document. Nevertheless, there is a significant overlap between the BEC and the suspension list: 2261 out of the 2457 10-digit tariff lines on the suspension list are classed as 'intermediates' in the BEC classification.

Setting all tariff lines defined as 'intermediates' to zero (in addition to the suspension list and the inward processing list) would reduce the simple average tariff to 4.0% (2.4% if all non-ad-valorem tariffs are excluded). Down from 6.4% (3.7% excluding non-ad-valorem) when using just the suspension list and inward processing list (and rounding). The weighted average would fall from 1.6% using the suspension and inward processing lists, to 1.3% (1.2% to 0.9% excluding non-ad-valorem tariffs). Tariffs would be eliminated on a further £9 billion worth of imports compared to the scenario where only items on the suspension list and inward processing list were set to zero. Overall, around 84% of all UK's imports from 'MFN countries' would be zero under this proposal, implying an overall loss of tariff revenue of £1.5 billion.

Table 2 summarises the changes to average tariffs that would come from the rounding exercise, and from setting all intermediate goods to zero (combining the suspension list, inward processing list and BEC categories). In each case, values are given both including non-ad-

[15] https://unstats.un.org/unsd/trade/classifications/bec.asp

valorem tariffs and excluding these. All values are based on tariff and trade data for 2018, although little changes when using 2017 data.

Table 2: Impact on average tariffs and trade from DIT's tariff proposal, applying changes to all UK's imports from 'MFN countries'

Scenario	Simple Average		Weighted Average		% of imports with tariff = 0		Total tariff revenue	
	With AVEs	Without AVEs	With AVEs	Without AVEs	With AVEs	Without AVEs	With AVEs	Without AVEs
Current EU MFN tariff	7.6%	4.7%	2.5%	2.0%	50.4%	51.4%	3165.2	2580.0
Rounding tariffs down	6.6%	3.9%	1.8%	1.4%	71.4%	72.7%	2356.6	1820.5
Rounding down + zero on all intermediates	4.0%	2.4%	1.3%	0.9%	84.5%	85.9%	1675.0	1176.5

N.B. Tariff data sourced from UN Comtrade at 10-digit (TARIC) level. 10-digit tariff lines have been aggregated into 8-digit codes using a simple average. Trade data sourced from HMRC's Overseas Trade Statistics at the CN 8-digit level. Both tariffs and trade data reported here are for 2018. Data categorised into BEC categories using Eurostat concordance tables from CN to BEC. 'AVE' refers to Ad-Valorem Equivalent tariffs

4. Eliminating tariffs on intermediates – effective rates of protection

In this note we compute the effective protection rate (EPR) for two of the the DIT proposed tariff schedules, and compare them with the EPR values under the current MFN tariff regime.

The EPR is a measure of the effect of the total tariff schedule on the value added of a particular industry, and represents the percentage increase in value added per unit given by the tariff structure, relative to the case with no tariffs. While the tariff applied to a specific product reflects only the protection on the final good produced, the EPR measures both the protection on the final good and on the intermediates used in its production. Indeed, if inputs are imported, a tariff on them would result in higher costs for final producer. By accounting for intermediate tariffs, we can compute an 'effective' protection rate. [16]

The main assumptions behind the construction of the EPR are that

- The goods identified in the exercise are homogeneous, so that domestic supplies are perfect substitutes for international ones;
- the country is a small open economy facing an exogenous international price for each product and setting its internal prices as the sum of the world price and any tariff payable;
- trade occurs for every intermediate products;
- all products continue to be traded even in the presence of tariffs, and
- the production technology is not altered by the tariff schedule.

As an example, consider a shoemaker that can sell a pair of shoes (the final product) at £100 in the international market. To produce a pair of shoes he uses £50 worth of leather (the

[16] To our knowledge, the earliest reference is Corden, Warner Max. "The structure of a tariff system and the effective protective rate." *Journal of Political Economy* 74.3 (1966): 221-237.

intermediate input). In absence of tariffs, the value added of the shoemaker is £100-£50 = £50. Now suppose that the tariff on shoes is 20% but there is no tariff on leather. Then the price of shoes in the domestic market will be £120. The domestic producer matches the foreign price and sell at £120, increasing his value added by £20. The effective protection rate is then 40% (20/50).

The EPR for industry j in the domestic market is computed as:

$$EPR_j^D = 100 * \frac{(t_j - \sum_i t_i a_{ij})}{1 - \sum_i a_{ij}}$$

Where t_j is the proportionate tariff on the final good j, t_i is the tariff on the intermediate i, a_{ij} is the share of intermediate i in costs of j and D stands for domestic. The t terms represent the tariff rate (e.g., for a 10% tariff t=0.1) for both final and intermediates. In this way, if the tariff on both final and intermediates is zero we have $t_j = t_i = 0$ and the domestic EPR = 0, i.e. there is no protection. On the other hand, if there are no tariffs on intermediates ($t_i = 0$) but positive tariffs on final goods, the EPR>0 and the sector enjoys some protection. The term in the denominator $(1 - \sum_i a_{ij})$ is the value added of the final product in absence of tariffs, while $(t_j - \sum_i t_i a_{ij})$ is the value added at domestic prices, which are inclusive tariffs. Note that tariffs on final products increase the EPR as they protect the domestic market, while tariffs on intermediates reduce the EPR, as they represent a cost for producers.

We can also compute the EPR in the export market as:

$$EPR_j^X = 100 * \frac{-\sum_i t_i a_{ij}}{1 - \sum_i a_{ij}}$$

For the exporter EPR, a positive tariff on intermediates reduces the profits of domestic producers (which face world price in the foreign market). Hence, if $t_i > 0$ the EPR is negative and exporters' profits (or some other element of value added such as the wages they pay) are reduced by domestic tariffs on intermediates.

Data for the a_{ij} coefficients come from the ONS 2015 Input-Output Analytical Tables.[17] This is done on SIC2007 goods sectors 1-32 as in the ONS IO table, which allows us to identify 46 separate sectors – this is because some sectors are disaggregated at the three digit level. The tariff data come from UNCTAD TRAINS for 2018 at the HS 10-digit level (TARIC level). We have adjusted this data to reflect the proposals of the tariff consultation. In particular, we considered two different versions of the proposed tariff schedule:

1. Rounding down of tariffs as per DIT's suggestion, applied to both t_j and t_i
2. Same as 1 but setting the tariff $t_i = 0$ for BEC intermediates.

[17] Available at: https://www.ons.gov.uk/economy/nationalaccounts/supplyandusetables/datasets/ukinputoutputanalyticaltablesdetailed

We compute both simple and weighted average tariffs for the outputs of each of the 46 sectors, where the weighted average is based on UK's imports from the group of countries which currently have no preferential trade agreement in place with the UK (i.e. countries currently facing the EU's MFN tariff). The trade data was sourced from HMRC's Overseas Trade Statistics at the CN8-digit level. We classify the tariff data into BEC categories using a Eurostat conversion key from CN8 to BEC.[18]

To convert the data into SIC07 categories we first aggregate the data to HS 6-digit level, and then convert this to ISIC4 categories using the OECD's Bilateral Trade in Goods by Industry and End-Use conversion key. SIC07 and ISIC4 are closely related, indeed the first two digits of ISIC4 and SIC07 are identical. As a final step we utilise a Eurostat conversion key from ISIC4 to NACE rev. 2 (which is identical to SIC07 up to the four digit level).[19]

For each version of the tariff schedule we compute the EPR both for the current EU MFN tariff and the DIT proposed tariff, which then allow for a consideration of their difference in percentage points:

$$\Delta EPR_j = EPR_j^{DIT} - EPR_j^{MFN}$$

A $\Delta EPR_j > 0$ means that protection increased, while a $\Delta EPR_j < 0$ means that protection decreases.

[18] Concordance table available at: https://ec.europa.eu/eurostat/ramon/other_documents/index.cfm?TargetUrl=DSP_OTHER_DOC_DTL#cn

[19] Concordance table available at: https://ec.europa.eu/eurostat/ramon/relations/index.cfm?TargetUrl=LST_LINK&StrNomRelCode=NACE%20REV.%202%20-%20ISIC%20REV.%204&StrLanguageCode=EN

Results

Table 3 reports summary statistics of the domestic EPR. Version v1 does not set BEC intermediates to zero in the computation of tariffs while v2 does. Note that for the MFN values there is no difference between v1 and v2. The row for MFN v2 it is left in just to ease comparisons.

The tariff schedule proposed by the DIT lowers the average EPR for domestic producers, increases the minimum (which is negative, hence reducing the disadvantage of domestic producers in foreign markets), and reduces the maximum. To interpret the table, whereas the current MFN tariff schedule has the effect of increasing the mean value added in UK industry by 3.73% (weighted average tariff), the DIT tariff with intermediate tariffs set to zero reduces it to 3.27%

Table 3: summary statistics EPR domestic, %

tariff	version	Mean		Min		Max	
		simple	weighted	simple	weighted	simple	weighted
DIT	v1	3.20	3.01	-0.33	-0.92	15.87	15.14
MFN	v1	3.94	3.73	-0.50	-0.73	17.18	16.62
DIT	v2	3.57	3.27	-0.15	-0.15	16.22	15.50
MFN	v2	3.94	3.73	-0.50	-0.73	17.18	16.62

Table 4 reports summary statistics of the exporter EPR. The DIT schedule brings the exporters' EPRs closer to zero compared to the current MFN schedule. This is true for mean, min and max values of EPR. The reduction in intermediates tariffs (compared to the current MFN) increases the profits of UK producers in foreign markets.

Table 4: summary statistics EPR exporter, %

tariff	version	Mean		Min		Max	
		simple	weighted	simple	weighted	simple	weighted
DIT	v1	-0.84	-0.87	-4.53	-7.03	-0.05	-0.05
MFN	v1	-1.00	-1.03	-5.11	-7.92	-0.06	-0.06
DIT	v2	-0.46	-0.61	-3.45	-6.68	-0.02	-0.01
MFN	v2	-1.00	-1.03	-5.11	-7.92	-0.06	-0.06

How many sectors see an increase in the domestic EPR? To compute this we count the sectors in which $EPR_j^{MFN} < EPR_j^{DIT}$. This yields:

Table 5: Number of sector with increased domestic protection

tariff	version	count
simple	v1	6
simple	v2	14
weighted	v1	8
weighted	v2	15

Note that for some of these cases the increase in protection comes from a reduction in the absolute size of a negative EPR. This is true for all six cases in version 1 using simple average and for seven of the eight sectors using weighted average in v1. On the other hand, version 2 sees a larger number of sectors with increased protection, and many of these have positive EPR. This is the result of intermediate tariffs falling faster than the final ones. Setting intermediate tariffs to zero increases the value added accrued by the final producer, which results in an increase in the effective protection.

On the other hand, the exporter EPR, which is always negative because there is no protection of the final good, always decreases in absolute terms – gets closer to zero. This is because all intermediates tariffs are unchanged or reduced in the proposed schedule.

Figure 1 and Figure 2 plot the EPR under the DIT schedule (vertical axis) versus the ones under the current MFN (horizontal axis), together with the 45 degree line. Sectors appearing below the line see a reduction in EPR, while those above see an increase in protection.

Figure 1: domestic EPR version 1, simple average

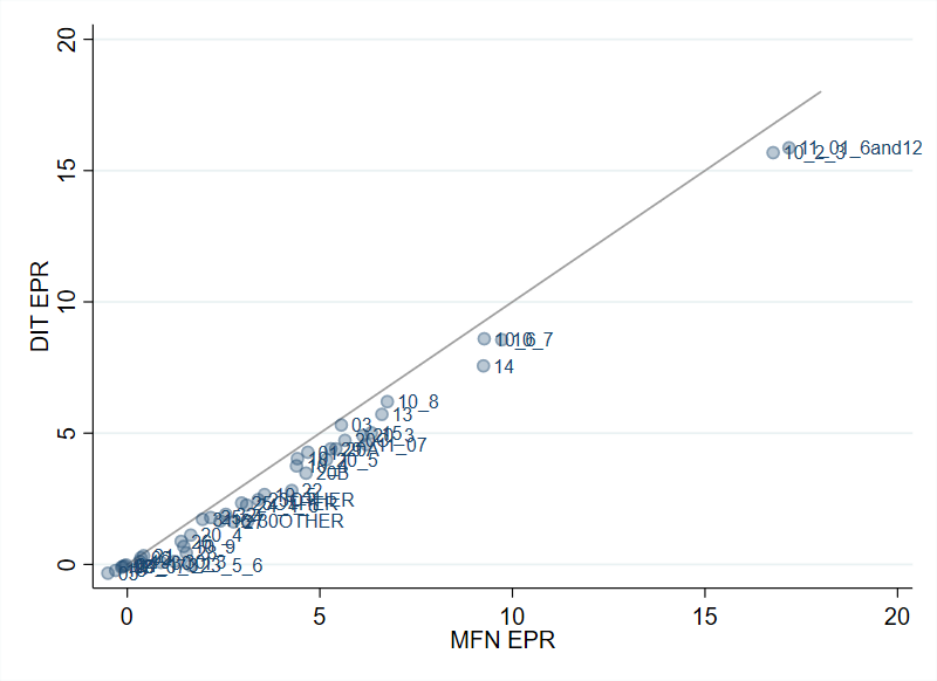
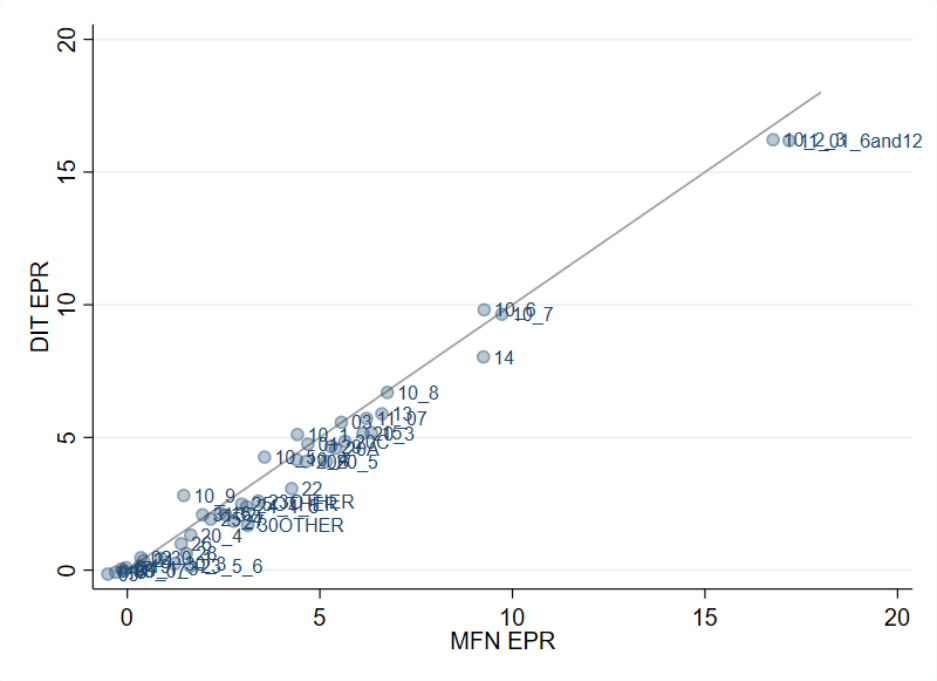


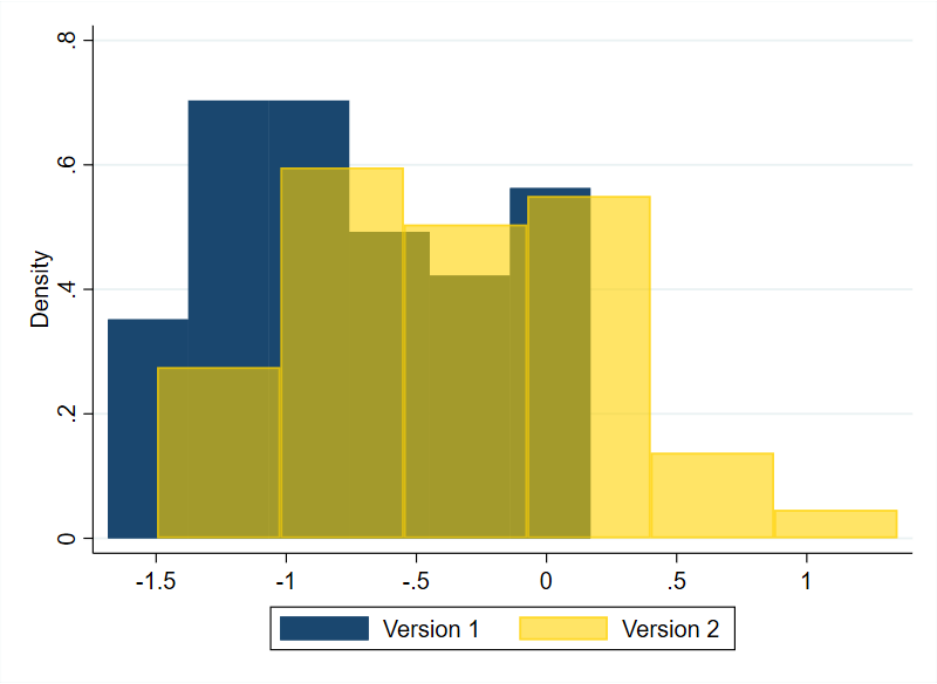
Figure 2: domestic EPR version 2, simple average



In version 2, where we set the BEC intermediates tariffs to zero, the sector that gains in terms of protection is related to food processing (SIC 10). Other sectors that see an increase in protection are agriculture, fishing and mining (SIC 01-08), paper and printing (SIC 17-18), basic metals (SIC 24.1-3) and furniture (SIC 31).

Overall, changes in EPR appear to be small. Figure 3plots the histogram for changes in EPR, ΔEPR_j , (which is measured in percentage points) for both version 1 (in blue) and version 2 (in yellow). This is done using the simple average tariff in the computation of EPR. The majority of the changes are negative although small. Under version 2, for which BEC intermediates tariffs are set to zero, the number of sectors that see an increase in protection rises compared to version 1.

Figure 3: Distribution of changes in EPR (pp), simple average



On the other hand, when we use the weighted average tariff in computing EPR, the histogram appears more skewed to the right, with a larger portion of changes close to zero. At the same time, the largest reduction in EPR increases compared to the simple average computation (from -1.7pp to -3.0pp).

Figure 4: Distribution of changes in EPR (pp), weighted average

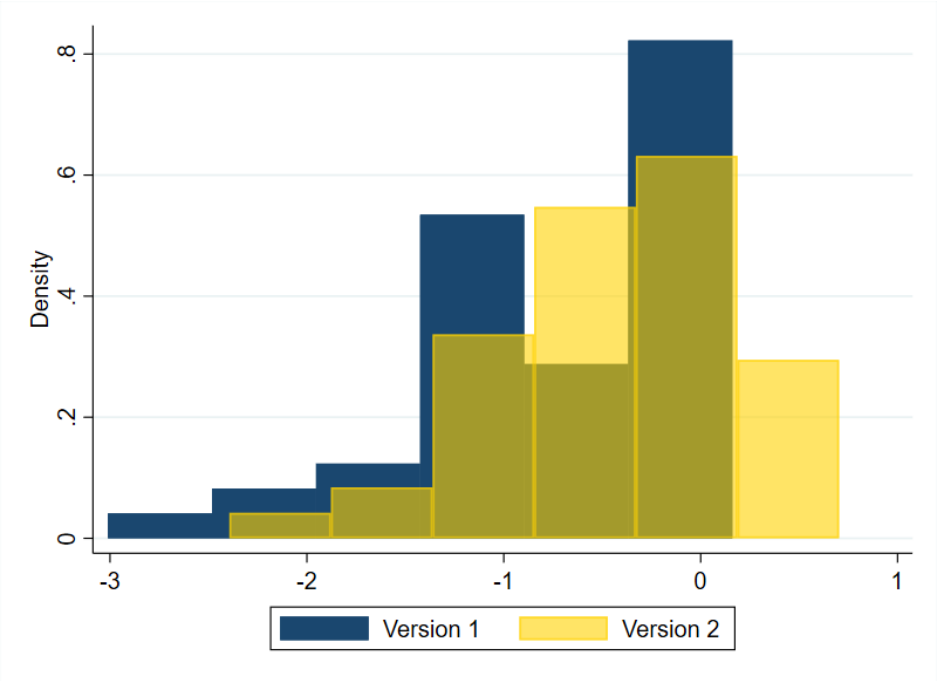


Table 6: List of sectors codes and names and sample results
The change in effective protection under different scenarios[a]

code	description	ΔE RP 1W D[a]	ΔE RP 1W X	ΔE RP 2W D	ΔE RP 2W X
01	Products of agriculture, hunting and related services	-0.5	0.2	-0.3	0.4
02	Products of forestry, logging and related services	-0.1	0.1	0.1	0.2
03	Fish and other fishing products; aquaculture products; support services to fishing	-0.2	0.1	-0.1	0.2
05	Coal and lignite	0.2	0.2	0.3	0.3
06&07	Extraction Of Crude Petroleum And Natural Gas & Mining Of Metal Ores	0.0	0.0	0.0	0.0
08	Other mining and quarrying products	0.1	0.1	0.1	0.1
09	Mining support services	-1.5	0.9	-1.1	1.2
10.1	Preserved meat and meat products	-0.9	0.3	-0.7	0.6
10.2-3	Processed and preserved fish, crustaceans, molluscs, fruit and vegetables	-0.1	0.2	0.2	0.5
10.4	Vegetable and animal oils and fats	-2.3	0.8	-0.6	2.5
10.5	Dairy products	0.0	0.2	0.5	0.7
10.6	Grain mill products, starches and starch products	-1.2	0.2	-0.5	0.9
10.7	Bakery and farinaceous products	-0.3	0.2	0.0	0.5
10.8	Other food products	-0.2	0.3	0.7	1.2
10.9	Prepared animal feeds	-0.4	0.1	-0.2	0.3
11.01-6 and 12	Alcoholic beverages & Tobacco products	-3.0	0.5	-2.4	1.1
11.07	Soft drinks	-1.3	0.1	-1.2	0.2
13	Textiles	-1.9	0.2	-1.7	0.4
14	Wearing apparel	-1.4	0.1	-1.3	0.2
15	Leather and related products	-0.4	0.2	-0.1	0.5
16	Wood and of products of wood and cork, except furniture; articles of straw and plaiting materials	0.0	0.0	0.2	0.2
17	Paper and paper products	0.1	0.1	0.2	0.2
18	Printing and recording services	0.0	0.0	0.0	0.1
19	Coke and refined petroleum products	-1.0	0.1	-0.8	0.3
20A	Industrial gases, inorganics and fertilisers (all inorganic chemicals) - 20.11/13/15	-1.2	0.2	-0.5	0.8
20B	Petrochemicals - 20.14/16/17/60	-0.9	0.1	-0.7	0.2
20C	Dyestuffs, agro-chemicals - 20.12/20	-1.1	0.1	-0.8	0.4
20.3	Paints, varnishes and similar coatings, printing ink and mastics	-0.2	0.1	-0.1	0.3
20.4	Soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations	-0.8	0.1	-0.7	0.2
20.5	Other chemical products	0.0	0.0	0.0	0.0
21	Basic pharmaceutical products and pharmaceutical preparations	-1.5	0.1	-1.2	0.4
22	Rubber and plastic products	-1.0	0.1	-0.8	0.2
23OTHER	Glass, refractory, clay, other porcelain and ceramic, stone and abrasive products - 23.1-4/7-9	-2.0	0.2	-1.8	0.4
23.5-6	Cement, lime, plaster and articles of concrete, cement and plaster	0.1	0.1	0.2	0.2
24.1-3	Basic iron and steel	-0.1	0.0	0.0	0.1
24.4-5	Other basic metals and casting	-0.7	0.1	-0.6	0.2

25OTHER	Fabricated metal products, excl. machinery and equipment and weapons & ammunition - 25.1-3/25.5-9	-0.9	0.2	-0.8	0.3
25.4	Weapons and ammunition	-0.1	0.1	0.0	0.2
26	Computer, electronic and optical products	-1.2	0.1	-0.9	0.4
27	Electrical equipment	-1.3	0.1	-1.1	0.3
28	Machinery and equipment n.e.c.	-0.9	0.1	-0.7	0.4
29	Motor vehicles, trailers and semi-trailers	-1.1	0.1	-1.1	0.1
30.1	Ships and boats	0.1	0.2	0.5	0.6
30.3	Air and spacecraft and related machinery	-1.0	0.1	-0.9	0.2
30OTHER	Other transport equipment - 30.2/4/9	0.0	0.2	0.3	0.5
31	Furniture	-0.9	0.1	-0.7	0.3
32	Other manufactured goods	-0.5	0.2	-0.3	0.4

a/ In labelling the scenarios, 1 refers to version, W to weighted tariffs, D to the domestic market and X to the export market. See text for details.

5. Impact of the proposals on consumer prices

5.1 Eliminating tariffs on items where there is no domestic production.

One of the elements of the DIT's proposal is whether or not to set tariffs to zero where there is no, or very limited, UK production.

The inward processing list discussed above is used partly for this purpose, where EU importers can apply for tariff suspensions on goods where there is insufficient EU production to meet the demand for a certain raw material or intermediate. Other than using this list, it is not straight forward to identify goods with zero UK production. To make precise estimates one would need detailed production data for all industries of the economy, but such data is unfortunately not easy to come by.

One alternative way of identifying such goods is by using UK export data as a proxy, whereby any goods where UK exports are zero could be interpreted as having no UK production.

At the 8-digit level, there are 169 goods (out of around 9,500 goods in total) where the UK had no exports in 2016-2018. Such goods include live buffalos, single cotton yarn and sea cucumbers. In these cases it seems relatively safe to assume that there is no UK domestic production. However, in other cases it could be the case that there is UK production, but only serving the UK market, and therefore not reflected in export statistics. Thus, looking purely at goods with zero exports may be an overstatement in the sense that it may capture goods produced in the UK but only for the domestic market. Equally, for some products it may be the case that there is no UK production, but the UK still reports some positive exports due to re-exports. One such example may be the exports of live camels, of which the UK reported exports worth £57,000 in 2016. It seems unlikely that these camels truly originated in the UK. Thus, looking only at exports may understate the number of products with zero production, to the extent that export statistics reflect re-exports.

To partly correct for the issue of re-exports, in this analysis we supplement the data on exports with agricultural production data from FAOSTAT.[20] FAOSTAT reports detailed production data for crops, processed crops, live animals and primary and processed livestock. We use the most recent production data available in FAOSTAT which reports production data up until 2017, and convert this to HS 6-digit codes using the FAOSTAT concordance table.[21] In total there are 165 HS 6-digit agricultural products for which FAOSTAT reports zero UK production. These include, for example, citrus and exotic fruits, live mammals such as camels and primates, coffee, tea and spices such as coriander and saffron.[22] As can be expected, there is some overlap between the zero export list and the zero production list, and so overall we identify 223 6-digit sectors where either exports are zero, or production is zero according to FAOSTAT. In some cases tariffs are relatively high on these goods. For example, the UK reports no exports of cuts of goat meat with bones (02045031), which face a two-part tariff of 12.80% + 222.70 EUR / 100 kg. Similarly, FAOSTAT reports zero UK production for garlic (070320) which faces a tariff of 9.60% + 120.00 EUR / 100 kg.

We do not report the effects of this tariff elimination on average tariffs – it is very small - but when we come to consider the effects on consumer prices we will take this reform into account.

It should be noted that while eliminating tariffs on products which the UK doesn't produce might intuitively make sense one should take into account the impact that this might have on developing countries. Many of the agricultural products which the UK does not produce are imported from developing countries (think of bananas, tea, or coffee). Most developing countries benefit from preferential access to the UK market through the Generalised System of Preferences (GSP) or Everything But Arms (EBA) schemes. The tariff preferences are in place to help poorer countries compete against richer ones. Eliminating tariffs on e.g. bananas or coffee for all countries would erode the preferences that the developing countries currently benefit from, which could be detrimental to these countries.

5.2 Non-Ad-Valorem tariffs

Roughly 12% of all 10-digit tariff lines are so-called non-ad-valorem tariffs. These tariffs are not measured in percentage terms but rather levy a fixed charge per unit of a good (such as the EU's tariff on dried sugar beet of 23 EUR per 100 kg or). Some goods also face a two-part tariff, combining both an ad valorem tariff and a specific tariff (such as the tariff on goat meat (02045031), which face a two-part tariff of 12.80% + 222.70 EUR / 100 kg). The percentage burden of a specific tariff therefore depends on the price the importer pays for the good, which may vary across time and across countries. Methods have been developed for estimating the ad-valorem equivalent (AVE) (i.e. percentage rates) of such specific tariffs. In this analysis we use AVEs estimated by UNCTAD.

[20] http://www.fao.org/faostat/en/#data
[21] http://www.fao.org/economic/ess/ess-standards/commodity/en/
[22] 8 HS 6-digit codes which report zero production data have been excluded due to inconsistencies in the production and export data. These are HS 010690, 020130, 020230, 020680, 020690, 040310, 040390, 040590.

UNCTAD estimates unit-values from tariff line import statistics of the HS 6-digit import statistics of all OECD countries. Once a unit value is estimated, then it is used for all types of rates (MFN, preferential rates, etc). This gives unique unit values for each product common to all importing countries and all types of rates. It also preserves the margin of preference in the preferential rates.[23]

Since the AVEs are a function of the unit price, which can vary considerably from year to year, the percentage equivalent of non-ad-valorem varies likewise. For example, the EU's MFN tariff on item 2205901000 - Vermouth and other wine of fresh grapes is 9 EUR per 100 l has an estimated AVE tariff of 8.4% in 2017, but 46.1% in 2018. Similarly, the tariff on item 0403903900 – certain types of buttermilk, curdled milk and cream is 1.620 EUR/kg/lactic matter + 22 EUR/100 kg. This represented an AVE tariff of 152.2% in 2017, but 136.2% in 2018.

Accounting for specific tariffs is important as these are typically among the highest tariffs facing importers. Indeed, at the 10-digit level the 125 products with the highest EU MFN tariffs in 2018 were all non-ad-valorem tariffs. Looking only at the AVEs of the non-ad-valorem tariffs, the average tariff was 34% in 2018, compared with a mean of 4.7% on the ad-valorem products.

While converting the current non-ad-valorem tariffs to percentage terms would likely be helpful for importers and exporters, as has been illustrated here, since AVEs tend to change from year to year it will be a difficult task to decide at which level the percentage rates should be set if the aim is to maintain an equivalent rate of protection as that which these industries enjoy currently.

5.3 The impact on consumer prices

What would these changes imply for consumer prices? In this section we estimate the approximate impact on final consumer prices from the changes in tariffs discussed above. Before delving further, however, a few caveats are needed:

1. Our analysis only looks at the impact on *final* consumer goods, and excludes any intermediate goods. Thus, while prices of intermediate goods could potentially impact the prices of final goods, this interlinkage effect is not included here.
2. We assume that trade patterns remain unchanged in the face of the changes in tariffs. Thus, we assume that the proportion that the UK imports from e.g. the EU, remains unchanged from actual values in 2018. Large changes in tariffs could of course make consumers substitute between suppliers, but, as discussed above, the tariff changes under consideration are mostly very small.
3. Due to limited data availability, and since the UK's future TRQ rates are yet to be established, we are unable to adjust our calculations for the existence of Tariff Rate Quotas (TRQs). TRQs allow a given volume of imports from a source country in at low tariff rates (usually zero) and then apply the regular MFN tariff to imports beyond that limit. Quite what effect this has on the average price of the imports from that source is uncertain, but our inability to analyse TRQs could lead us to over-estimate the effects of the tariff reforms on overall prices. If, for example, the imports allowed in duty-free are

[23] See Box 2.1 (p.65) here https://www.wto.org/english/res_e/publications_e/wto_unctad12_e.pdf

sold in the UK at duty-free prices, they would be insensitive to the tariff charged 'out of quota'. In some cases, e.g. imports of sheep-meat from New Zealand, the entire EU import flow is within the TRQ and thus attracts zero tariffs. In that case, rounding the MFN tariff rate has no effect.

We consider two aspects of the tariff consultation that would impact directly on final prices:

1) Rounding down of tariffs according to their tariff bracket.
2) Setting tariffs on products with no UK production to zero.

To capture the impact of the non-ad-valorem tariffs (which, as discussed, are some of the highest) we include the AVEs for non-ad-valorem tariffs, and round these down in the same way as we do for the ad-valorem tariffs.

Tariff and import data is collected for the following trade partners:

- EU27
- The group of 'continuity countries' for which a roll-over agreement has been agreed[24]
- Countries under the EU's EBA/GSP/GSP+ schemes
- Rest of the world

The tariff data has been sourced from UNCTAD TRAINS (through WITS) and the trade data is from UN Comtrade (also through WITS). All values are downloaded at the HS 6-digit level for 2018. We identify 'final goods' as those defined as consumer goods in the BEC classification, as well as motor fuel and automotive products.[25] Finally, we convert the data into ISIC4 sectors using the OECD's Bilateral Trade in Goods by Industry and End-Use conversion key. Overall this gives us 81 ISIC4 sectors, covering 8 agricultural sectors and 73 manufacturing sectors.

For the calculations, we reconcile the trade and tariff data with data on production. The production data was further adjusted to capture the size of domestic sales (i.e. home consumption of home production).[26] This enables us to calculate the import penetration (s) for each sector (x):

$$s_x = \frac{M_x}{C_x}$$

Where M denotes total UK imports and C total UK consumption of sector x. We have this data for UK's total consumption and total imports in each ISIC4 sector, and we assume that this ratio remains unchanged when looking at only final goods.

Further, for each product, we calculate the shares of each supplier in total imports ($v_{i,x}$):

[24] For an updated list of the continuity agreements see https://www.gov.uk/guidance/uk-trade-agreements-with-non-eu-countries. At the time of writing continuity agreements have been signed with 49 countries.
[25] We merge our HS 6-digit data with BEC using a concordance table downloaded from the World Integrated Trade Solution (WITS).
[26] For further details on how the production-trade-tariff dataset was composed see https://blogs.sussex.ac.uk/uktpo/files/2018/02/18-02-13-BP16Appendix-revised.pdf

$$v_{i,x} = \frac{m_{i,x}}{M_x}$$

where $m_{i,x}$ is the UK's imports from partner *i* of sector x.

We assume that products are differentiated by place of production. With heterogeneous goods the overall price of category x will be a weighted average of the domestic price (assumed to be, to a first approximation, unchanged), the affected import price and other import prices. To calculate consumer prices we thus calculate the price of imports as $p_{world} * (1 + t_i)$ for each partner, where we set p_{world} to 1, and then weight together, using s_x and $v_{i,x}$, with domestic prices, which we also set =1. [27]

Thus, assuming p_{world}=1, the consumer price for sector x is calculated by:

$$P_x = s_x * \sum_i (1 + t_{i,x}) * v_{i,x} + (1 - s_x)$$

The first term gives the impact on the consumer price in sector x from the import partners, and the last term (1-sx) gives the impact on the price from domestic production (where price is set to 1).

This calculation is done before and after the changes implied by the tariff consultation, after which the percentage change in consumer prices is calculated. Thus, we look at the impact of applying the proposed tariffs on imports from 'MFN countries' compared with applying the current MFN tariffs on these countries. We assume tariffs remain unchanged for all other trade partners.

Our calculations indicate that the impact on final consumer prices would be small. The average change in prices across the 81 ISIC4 sectors is -0.24%. The largest changes are in citrus fruit (-1.28%) and tropical fruits (-1.17%), this is largely driven by the fact that UK has close to zero production of these products, and tariffs have therefore been set to zero.

Multiplying the price change in each sector by its share of total consumption across the 81 sectors, and summing across all sectors gives an approximation to the aggregate effect of the tariff proposal on consumer-good prices. Overall, rounding down tariffs and eliminating tariffs on zero production goods, reduces consumer goods prices by around -0.15%. Of course, consumers in the UK spend only around 40% of their money on goods as opposed to services and so the effect of these tariff reforms on the cost of living is about 0.06% (= 0.4 * 0.15%).[28]

It is important to remember that this exercise is only an approximation. Unlike in Clarke, Serwicka and Winters (2017), we have worked with industry level data rather than consumption data and we have made no allowance for changes in the pattern of consumption arising from the

[27] It is worth being explicit that this is a very different assumption from the one adopted in the companion exercise on effective protection. The two should not be combined.

[28] Stephen Clarke, Ilona Serwicka and L. Alan Winters (2017) *Changing Lanes The impact of different post-Brexit trading policies on the cost of living,* The Resolution Foundation and UKTPO. https://blogs.sussex.ac.uk/uktpo/files/2017/10/Changing-Lanes.pdf

tariff changes. Nonetheless, for the small changes considered, the approximation does not seem to be seriously misleading.

5.4 What if MFN tariffs would apply to the EU?

So far we have assumed that the tariff proposal would only apply to the group of 'MFN countries' which currently face EU's MFN tariff. That is, implicitly that the UK and EU do strike a duty-free quota-free trade agreement from 1st January 2021.

However, if the UK and the EU fail to each a trade agreement by the end of 2020, and the transition period is not extended, the UK and the EU would have to trade with each other on MFN basis. Hence we re-work the calculations above assuming that imports from both the EU and the 'MFN countries' face the MFN tariff. (That is everyone except for GSP countries and the countries with which the UK is seeking continuity trade agreements).
The implications are very different because more trade is at stake and it has a different pattern. Of course the assumption of unchanged trade patterns becomes pretty implausible at this stage, because worsening trading conditions will cut the volume of EU trade, but in the absence of detailed calculations of such effects, we have to make do with the 'no change' assumption.

Table 3 replicates table 2 but now with EU trade added in. The unweighted tariffs are unchanged, of course, but when we weight by actual trade the average MFN tariff is now considerably higher. The current absence of tariffs on imports from the EU, even where the MFN tariff is high, skews trade towards EU sources, so that adding in EU trade increases the weights of high-tariff products. As a result of including more tariff-ridden trade in the weights, the tariff liberalisations proposed by the consultation also have a larger effect on average tariffs than when we consider just MFN country trade. Even so, the effects are not massive – e.g. a decline of 0.8 percentage points from setting all intermediate tariffs to zero, as opposed to a 0.5 percentage point effect if we use just MFN country trade. The revenue effects are also larger.

Table 7: Impact on average tariffs and trade from DIT's tariff proposal, applying changes to all UK's imports from 'MFN countries' and the EU

Scenario	Simple Average		Weighted Average		% of imports with tariff = 0		Total tariff revenue	
	With AVEs	Without AVEs	With AVEs	Without AVEs	With AVEs	Without AVEs	With AVEs	Without AVEs
Current EU MFN tariff	7.6%	4.7%	4.7%	3.5%	39.0%	40.9%	17561.0	12543.2
Rounding tariffs down	6.6%	3.9%	4.0%	2.9%	53.5%	56.1%	14931.9	10249.8
Rounding down + zero on all intermediates	4.0%	2.4%	3.1%	2.1%	73.4%	76.3%	11565.1	7499.2

N.B. Tariff data sourced from UN Comtrade at 10-digit (TARIC) level. 10-digit tariff lines have been aggregated into 8-digit codes using a simple average. Trade data sourced from HMRC's Overseas Trade Statistics at the CN 8-digit level. Both tariffs and trade data reported here are for 2018. Data categorised into BEC categories using Eurostat concordance tables from CN to BEC.

Impact on consumer prices

To estimate the impact on prices from applying the DIT's tariff proposal on imports from both 'MFN countries' and the EU27 we first calculate the impact on prices from applying EU's current MFN tariffs on both EU27 and the MFN countries. Second, we calculate the impact of instead applying the proposed tariffs, and then take the percentage difference between the two. Consumer prices would be higher than at present in both scenarios (since both scenarios would mean tariffs are applied on imports from the EU). However we find that the overall prices of consumer goods would be around 0.7 percentage points lower under the consultation proposal than they would be if the current EU MFN tariffs were applied to UK's imports from the EU, a bigger effect than we found previously.

6 Tariffs and variety

The most important points here are:

- that variety is much mor dependent on regulations etc than on tariff levels
- that reductions in tariffs could either lead to a decrease or an increase in variety
- that the reforms that the government has suggested for discussion are too small to have significant effects overall.

Having said that, however, there is always a chance that the tariff reform – especially if it is to reform and then reduce one of the large specific duties – could be sufficient to trigger a variety effect in a specific case.

A large tariff could exclude a foreign variety of a good and even, by so reducing competition, lead domestic producers to offer a more limited menu of varieties. Undoing these effects via a tariff reduction could have beneficial effects, if any. However, it is equally possible that a domestic variety of a good is kept afloat by tariff protection and that a reduction sinks it altogether. This is the sort of argument that is advanced for 'infant industries' – the need to provide protection in order to allow a sector (firm) to establish itself. (The argument is not implausible, but experience suggests that it is rarely true.). It also, more plausibly, might be relevant to efforts to slow the decline of a senescent industry. Any analysis of this sort is necessarily case-specific.

At a more general level, economists have models of differentiated product markets in which the number of varieties of a type of good is endogenous. In the simplest of these – Krugman (1980) – the number of firms (varieties) is determined by the size of the market and the fixed costs of providing an additional variety. Holding the latter constant if previously completely separate economies are joined together by engaging in perfectly free trade, the overall economy size goes up and with it variety. Import competition reduces prices in each country, driving some firms (varieties) out of business. However, while opening trade up has the effect of reducing the number of producers in each country, the fact that consumers can now benefit from purchasing from two supplying countries means that the net effect is to increase available variety.

The real world is more complex than this in two critical dimensions. First, we are dealing with finite tariffs that are changed only slightly, so rather moving from autarchy to free trade, we are moving from a slightly more to a slightly less distorting trade policy, and this ignores any

(second-best) considerations about how tariffs may interact with other policies and frictions in the economy. Nonetheless, the tendency for trade to encourage variety seems likely to prevail. Second, the UK and the rest of the world are highly asymmetric. Accounting for a little over 2% of world income, even a major liberalisation seems unlikely to affect the number of varieties that the world produces materially.

Overall, therefore, despite the theoretical models the most plausible conclusion is a small UK liberalisation is unlikely to have much effect on the variety of products available in the UK.

Tariffs and quality

The discussion so far has treated varieties symmetrically, not distinguishing them by any specific characteristic. However, a question does arise as to whether the tariff (or its reform) offers more encouragement to 'low' or 'high' quality varieties. There are many ways to define quality, which we will not enter into, but we may observe that varieties generally held to be 'better' are almost invariably more expensive. This may reflect their excess costs of production or just their branding which makes demand less price sensitive and hence offers more scope for sellers to ease up their prices.

This observation provides a direct link to tariff policy. Economists generally assume that demand is a function of relative prices – the ratio of, say, the price of a 'low' quality variety (PL) to that of a 'high' one (PH) – viz PL/PH. If both high and low quality varieties face the same percentage tariff (t%), ceteris paribus, the price of each will rise by t%, leaving the relative price, and hence relative demand, unchanged. Now, however, suppose that as with many UK tariffs on foodstuffs, the tariff is a specific one, i.e. £x per unit, and that again this is passed straight onto consumers. £x is a larger percentage of PL than of PH and so the low quality variety becomes relatively more expensive and demand for it is likely to be suppressed. There is ample evidence of this sort of effect, although mostly in the cases of quantitative restrictions (quotas), which are equivalent to specific duties.

The tariff consultation is not clear about the future of specific duties on foodstuffs, but if they were converted to regular percentage (ad valorem) tariffs, we would expect that to increase demand for lower priced varieties. Given that some of these tariffs are large the effect might be to create markets for lower-priced varieties that were previously rendered uneconomic by the tariff. This process might appear to be generating an undesirable decline in average quality, but by opening markets up for poorer consumers it could be of great social significance.

7 Tariffs and Environmental Goods

There is no accepted definition of environmental goods, although several attempts have been made at reaching a consensus on the matter. This document lists some of the attempts at defining environmental goods, and gives information on the EU's current MFN tariffs, and the share of UK's total imports, of the goods defined in the various lists. Unless otherwise stated, all tariff and trade data refers to 2018.

Overall, across all the different environmental goods (EGs) lists analysed here, EU's MFN tariffs are already very low, and the vast majority of the non-zero tariffs would be zero under DIT's proposals (e.g. round down tariffs or setting tariffs on intermediates to zero). Further, the UK's imports of the different EGs tend to account for a rather small share of UK's total imports, so it seems unlikely that removing tariffs on EGs would have any significant impact on UK imports.

One of the reasons why negotiators struggled to make progress in defining environmental goods at a plurilateral level is that, even at the HS 6-digit level (the most disaggregated classification which is standardised internationally) many HS 6-digit products have dual-use, and thus there is a need to drill down further, to the 8-digit or 10-digit level, to precisely identify true environmentally friendly goods. While this was not possible at a plurilateral level, there is perhaps an an opportunity for the UK to do so unilaterally.

Table 8 gives an overview of three different lists of environmental goods. These (and more) are discussed below.

Table 8: Selection of environmental goods lists

Variable	WTO 411-list (Doha Round	WTO EGA list	CLEG*
Number of HS 6-dig products	411	265	255
% of total UK imports in 2018	27.0%	9.8%	7.5%
% of total UK exports in 2018	28.9%	10.7%	8.3%
EU Simple Average MFN tariff	2.9%	2.0%	2.3%
Share of 6-dig tariff lines:			
.. already 0% MFN tariffs	18.0%	25.3%	15.7%
.. <=2.5% MFN tariffs	38.0%	41.9%	47.1%
.. intermediate products	21.7%	20.0%	18.8%

* The original list contains 248 products, but converted to HS2012 the number of products increase to 255

Early WTO proposals during Doha Round

Under the 2008 work programme of the Committee on Trade and Environment in Special Session (CTESS) at the WTO, member states were invited to identify environmental goods of interest to them across as many categories as possible. Thirteen countries participated in the submission process resulting in six lists with a varying number of products included[29]:

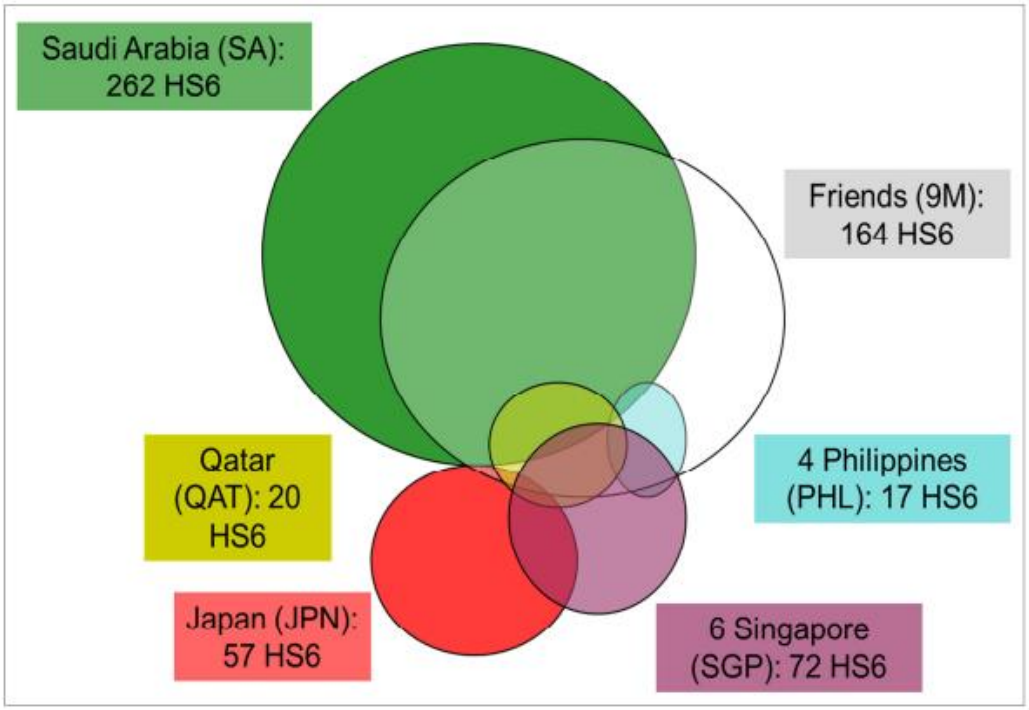
- Saudi Arabia (262 HS 6-dig codes)
- Japan (57 HS 6-dig codes)
- Philippines (17 HS 6-dig codes)
- Qatar (20 HS 6-dig codes)
- Singapore (72 HS 6-dig codes)

[29] Balineau and De Melo (2013) document the process for removing tariffs on environmental goods during the Doha Round: https://www.cambridge.org/core/services/aop-cambridge-core/content/view/8AC2A282E45B01B5A13EC01E130E9232/S1474745613000074a.pdf/removing_barriers_to_trade_on_environmental_goods_an_appraisal.pdf

- Group of nine 'Friends'[30] (164 HS 6-dig codes)

The overlap between the lists was small, as Figure 5 below illustrates. Removing any duplicates, the six lists together identified 411 HS 6-digit products as potential 'environmental goods'. Note that the scope of the lists are relatively broad and includes, for example, a range of motor vehicles.

Figure 5: Overlaps of proposals to the WTO of environmental goods



Source: Balineau, G., and De Melo, J., (2013), "Removing Barriers to Trade on Environmental Goods: An Appraisal", *World Trade Review*, Volume 12, Issue 4, pp. 693-718

Overall, EU MFN tariffs on these goods are already low. The simple average tariff across all the 411 goods is 2.9%. 74 tariff lines (18%) are already zero, and a further 156 products (38%) have MFN tariffs of 2.5% or less (and would thus be rounded down to zero under DIT's proposal). A further 88 tariff lines are categorised as BEC intermediates, and one tariff line falls under the inward processing list, these would be zero under DIT's proposal on intermediate tariffs.
All in all, over 77% of the 411 tariff lines are either already zero, or would be zero under DIT's proposals.[31] Of the remaining products, the highest tariffs are on motor vehicle products (which make up 29% of the remaining tariff lines), as well as on e.g. colour video monitors, projectors and recording or reproducing apparatus. Due to its broad scope, the products on this list account for 27% of UK's total imports.

In the end, it proved too difficult to reach an agreement, largely because member states had very different views on how to define environmental goods, as evidenced by the low degree of overlap between the six proposed lists.

[30] The 'friends' group includes Canada, the EU, Japan, Korea, New Zealand, Norway, Taiwan, Switzerland and the USA.
[31] Note also that no tariff data is reported in 2017/2018 for 14 of the 411 products

APEC list

In 2011, APEC launched an initiative that sought to cut tariffs on environmental goods. In 2012 a list of 54 goods was endorsed, for which tariffs were to be cut to 5% of less by the end of 2015.

Most of the 6-digit headings fall into three categories:

7.1 Renewable energy production (27.8% of headings)

7.2 Environmental monitoring analysis and assessment equipment (27.8%); and

7.3 Management of solid and hazardous waste and recycling systems (22.2%).

This list is looked at in more detail in the section on the CLEG list (below).

WTO Environmental Goods Agreement (EGA)

Building on the APEC initiative, the WTO initiated negotiations for an Environmental Goods Agreement in 2014. This was a plurilateral initiative by 46 WTO members, with the aim of agreeing a common list of environmental goods for which tariffs would be eliminated.
In 2016 a so-called 'A list' had been drawn up, covering about 300 goods. However, in the end no agreement was reached, partly because, at a late stage, China introduced a new list of 231 goods which was unacceptable to some of the other members.[32]

Since no agreement was reached, there exists no official list of the environmental goods defined under the EGA. The list used here is one which was circulated just before negotiations collapsed, covering 265 HS 6-digit codes in total.[33] 139 goods on the EGA list were also on the WTO's combined 411 list discussed above.

The products on the EGA list account for under 10% of UK's total imports. Further, the average tariff is very low: across all 265 goods the simple average tariff is 2.0%. Overall, 67% of the tariff lines are 2.5% or below, meaning they would be rounded down to zero under DIT's proposal. Another 20% are defined as intermediates on the BEC list, and may therefore also be set to zero under DIT's proposal. This leaves 34 6-digit tariff lines, where the average tariff is 3.5%.

Original OECD/EUROSTAT list (1999)

Together with Eurostat, the OECD prepared a list of environmental goods for statistical use rather than for negotiation purposes.[34] The aim was to define a list of environmental goods such that estimates of the importance of environmental goods trade could be determined.

[32] https://mlexmarketinsight.com/insights-center/editors-picks/trade/cross-jurisdiction/chinas-eleventh-hour-demands-derail-talks-on-environmental-goods-deal

[33] Add reference to George/Dmitry

[34] https://www.oecd-ilibrary.org/docserver/9789264173651-en.pdf?expires=1582565068&id=id&accname=ocid177402b&checksum=D8A48969474FC445948A9D8F9A8DFAFE

Because this list was not made for negotiating purposes it did not suffer from the same domestic political economy pressures as the WTO and APEC did. On the other hand, the list could be seen as less precise as it is non-exhaustive, and no attempt was made to go beyond the 6-digit (sub-heading) HS codes and identify only those goods that could be considered "environmental".

Overall the OECD's list identified 132 HS 6-digit codes. The 6-digit codes were divided into 3 categories (Pollution Management; Cleaner technologies and products; Resource Management) with a number of sub-categories.

Subsequently, in preparation for the 2010 Toronto summit of the G20, the OECD published an indicative list of 150 climate-change-relevant goods for a plurilateral environmental goods and services (PEGS) agreement.[35] This list is discussed in more detail below.

The Combined List of Environmental Goods (CLEG)

The CLEG[36] combines the APEC (54 goods) list, the OECD's (150 goods) PEGS list and the proposal by the 'Friends' (154 goods) to the WTO. In total the list contains 248 products.[37] 135 of these products are common to both the CLEG and the WTO's EGA list.

The EU's simple average MFN tariff on the CLEG products is 2.3%, and the products accounted for 7.5% of UK's total imports and 8.3% of UK's exports in 2018. Overall, over 80% of the tariff lines are either 2.5% or below (so would be rounded down under DIT's proposal), or defined as intermediates. The average tariff on the remaining 39 tariff lines is 4%.

Environmentally Preferable Products

A concern for the above mentioned lists (particularly the WTO lists and the APEC list) is that they were put together by developed countries, largely for developed countries. As already seen, the process was heavily influenced by mercantilist concerns, and as a result the list predominantly feature goods where average tariffs were already low in most developed countries. In contrast, tariffs on these goods were often higher in developing countries, and in addition few of the listed products were goods in which developing countries had a comparative advantage.[38] For these reasons most developing countries did not engage in the discussions at the WTO.

As an alternative, the concept of 'environmentally preferable products' was developed by UNCTAD, and later the OECD (Tothova, 2006[39]) compiled a list of 106 HS 6-digit EPPs. This is a looser concept than the 'environmentally friendly' concept used in the WTO, and feature products which cause significantly less environmental harm at some stage of their life cycle than

[35] http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=COM/TAD/ENV/JWPTE%282013%2933/FINAL&docLanguage=En

[36] http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=COM/TAD/ENV/JWPTE%282013%2933/FINAL&docLanguage=En

[37] The original list was published in HS2007, however for our purposes (to match the WTO EGA list) we use HS2012, in which case the CLEG lists contains 255 products.

[38] https://voxeu.org/article/what-s-wrong-wto-s-environmental-goods-agreement

[39] https://www.oecd-ilibrary.org/docserver/9789264024823-3-en.pdf?expires=1582567484&id=id&accname=ocid177402b&checksum=9D4B71EE525475EBB45CE18A1683CE70

their alternatives. The products on this list generally favour developing countries interests more than the aforementioned lists.