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Brexit Trade Impacts' and Mercosur's Negotiations with Europe^{*}

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We estimate that a hard Brexit (HB) would reduce UK agro-industrial-imports from the EU by around 50%. Following the dismantling of the Common Agricultural Policy (CAP) the UK Government has proposed to shift towards market-oriented agricultural policies and negotiating free trade agreements (FTAs) with interested countries. Members of Mercosur would then face two negotiations in Europe: with the EU27 and with the UK. How should they allocate their scarce negotiating resources and where should they invest their political capital? For a number of reasons discussed in the text we argue that: (1) negotiations with the EU are unlikely to deliver market access much in excess of what it has offered so far; (2) unlike these negotiations that have dragged for around twenty years, there are circumstances indicating that in the event of Brexit, an FTA with the UK could be completed in a relatively short period and, (3) failing Mercosur to give these talks priority, other countries are more than likely to sign trade agreements with the UK and fill its import gap thus creating additional trade diversion effects against its Members. We offer back-of-the-envelope estimates indicating that under such an FTA, Mercosur could double its agro-industrial exports to the UK.

1 INTRODUCTION

The UK is the second largest economy in the EU¹ and therefore for some of the products it trades, Brexit will have quite large effects.² This is the case of several

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¹ UK's GDP exceeds the sum of the thirteen countries that joined the EU in this millennium plus the three that joined in 1995. In this sense, Brexit would take the EU back to where it was some twenty-five years ago.

² These trade effects trigger macroeconomic consequences which among several others, have been studied by HM Treasury (2016), and Minford and Miller (2016). While the study by HM Treasury assumes a hard Brexit, Minford and Miller (who represent the group of 'Economists for Brexit'), assume that post-Brexit the UK adopts free trade policies and this in turn would increase GDP. For critical views on these studies' assumptions and results see Gudgin et al. (2017) on the Treasury report, and Sampson et al. (2016) and Winters (2017) on Minford's analysis.

agro-industrial products which we study here with a view to assessing the trade interests of Mercosur in the European market.

Under Brexit the bilateral trade policy that would eventually be agreed upon will fall within two extreme outcomes: (1) a HB where both partners initially adopt the EU MFN (most-favoured-nation) tariffs for trading among themselves and, (2) a most liberal trading arrangement. Both extremes are unlikely but not impossible. A HB would shatter trade flows to an extent that important pressure groups are opposing with strength in the UK. On the other hand, a very open bilateral trade policy like that between the EU and EEA (European Economic Area) members implies that in exchange for accessing the common market the UK would have to maintain open borders to the movement of persons and contribute financially to its social objectives. Because both of these policies are included among the UK red lines, the odds are also against a very liberal bilateral trade policy (Gasoriek et al. 2016).

A HB is the worst case scenario and estimating its trade effects is likely to overstate the opportunities and challenges that third countries would face in the UK market. Still, until a clearer picture emerges from the negotiations, in the case of agro-industrial products, the exercise remains useful for at least three reasons: (1) in contrast to the number of papers that have quantified the aggregate trade effects of a HB, there is scant work focused on agro-industrial trade³; (2) there is also scant work on its impact on developing countries⁴ and, (3) contrasting with the FTAs signed by the EU where the agro-industrial chapter is usually highly restrictive of temperate agricultural products, the UK has been quite explicit that post-Brexit it would liberalize food imports.

Following Brexit and the dismantling of the CAP, it will be the first time since 1973 when the UK joined the EU, that third countries will face close to a level playing ground with the EU as competing suppliers to the market of one of its former members. How important is this for agro-industrial products? In 2016 the UK imported USD 43,480 million of agro-industrial products from the EU and we estimate that a HB would reduce this bilateral trade by around 50%.⁵ In order to minimize the impact of Brexit on food prices, the UK will have to compensate with imports from non-EU suppliers.

³ Exceptions include Bellora et al. (2017), and Yu et al. (2017) cited in Mathews (2018).

⁴ Mathews (2018) is a salient exception.

⁵ For this paper we identify agro-industrial products as those contained in the first twenty-four chapters of the Harmonized System (HS).

Faced with the reality of Brexit, Mercosur will eventually have to decide the priority to be given to negotiating an FTA with the UK.⁶ We call attention to the importance of this opportunity over other negotiations particularly between the Mercosur and the EU where strong political leaders are clearly not enthusiastic or directly opposing them. For example regarding these talks, Cecilia Malmstrom the EU Commissioner for Trade, has stated that: 'We are particularly careful when it comes to negotiations with partners who are strong exporters of our sensitive products. That's how we are approaching the Mercosur negotiations and the question of beef exports in particular ... But let me be clear, we will not make any commitments that go further than what sensitive sectors can handle' (Malmstrom 2016).

The remaining discussion is organized as follows. Section II presents an aggregate picture of the structure of UK-agro-industrial trade with the EU and with Mercosur while section III offers estimates of the quantitative impact of a HB on UK imports. Section IV calls attention to some structural economic factors occurring since the early millennium years that point towards a decreasing likelihood of the EU improving its market access offer to Mercosur. Section V discusses non-economic advantages of negotiating an FTA with the UK and also presents back-of-the-envelope estimates on Mercosur's export potential in meat and agro-industrial products to the UK market. Concluding remarks are presented in Section VI.

2 UK AGRO-INDUSTRIAL TRADE WITH THE EU AND MERCOSUR

The EU is by far the major trade partner of the UK but because of its growing deficit in goods, over time the relative importance of this market has shifted.⁷ Table 1 shows that while in 2001 the EU accounted for 59% of aggregate UK exports, by 2016 it had declined to 47%. On the import side the opposite occurred: in 2001 UK imports from this source accounted for 50% of the total but by 2016 it had increased to 52% (Table 2). During this period, the UK's aggregate trade with the Mercosur countries remained negligible at less than 1%.

⁶ In emphasizing the importance of a Mercosur-UK FTA, delicate political and geo-political issues will have to be overcome. Because I am not an expert on these themes, I will not deal with them here, but will only point to the fact that there currently appears to be constructive spirits on all parts. I remind that on 23 May 2018 when honouring Argentina's soldiers that died in the Malvinas war, Boris Johnson UK's Chancellor at the time said: 'I wish this will be a new chapter in our relationship and a signal for strengthening trade ties after the UK leaves the EU' (author's translation from a note entitled: 'Por primera vez un Canciller Británico homenajeó en la Argentina a los caídos en las Malvinas' published in *Ámbito Financiero* (2018)), <http://www.ambito.com/921833-por-primera-vez-un-canciller-britanico-homenajeo-en-la-argentina-a-los-caidos-en-malvinas>. Likewise, Marcos Peña, Argentina's Chief Cabinet Minister visited London to pay respect to the UK soldiers who perished in this war, <https://www.elpatagonico.com/marcos-pena-homenajeo-los-soldados-ingleses-caidos-malvinas-n3075286> (Feb. 2019).

⁷ This deficit in goods has been counterbalanced by a growing surplus in services trade.

Table 1 UK Aggregate and Agro-Industrial Exports to the EU, to the World and to Mercosur (million USD)

Type of goods	Exports to the EU		Exports to the world		EU share (%)		Exports to the Mercosur		Mercosur's share	
	2001	2016	2001	2016	2001	2016	2001	2016	2001	2016
Agro-industrial	8,843	17,503	14,520	28,884	60.9%	60.6%	312	232	2.2%	0.8%
All goods	165,648	193,563	279,425	411,463	59.3%	47.0%	2,113	3,299	0.8%	0.8%
Agro-industrial share (%)	5.3%	9.0%	5.2%	7.0%	na	na	14.8%	7.0%	na	na

na: not applicable. *Source:* Data from Trademap.

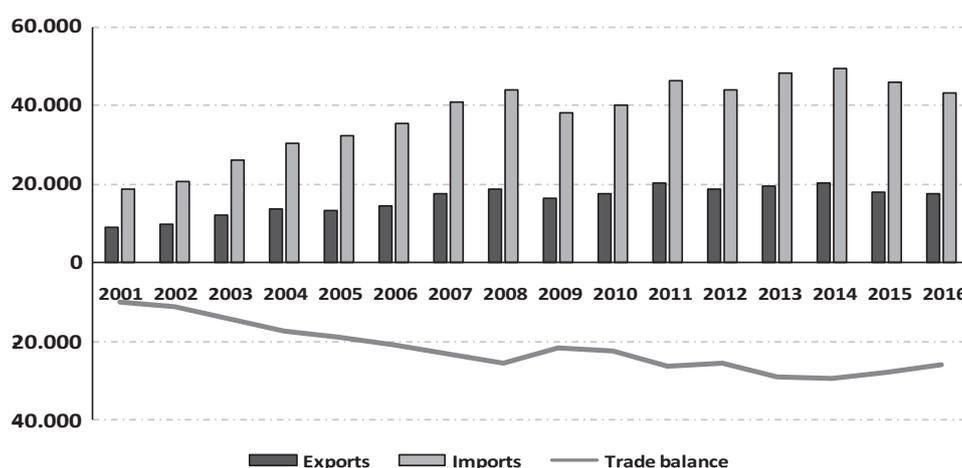
Table 2 UK Aggregate and Agro-Industrial Imports from the EU, from the World and from Mercosur (million USD)

Type of goods	Imports from EU		Imports from world		EU share (%)		Imports from Mercosur		Mercosur's share	
	2001	2016	2001	2016	2001	2016	2001	2016	2001	2016
Agro-industrial	18,651	43,480	30,431	61,311	61.3%	70.9%	1,220	2,042	4.0%	3.3%
All goods	180,901	330,606	358,703	636,368	50.4%	52.0%	2,899	4,432	0.8%	0.7%
Agro-industrial share (%)	10.3%	13.2%	8.5%	9.6%	na	na	42.1%	46.1%	na	Na

na: not applicable. *Source:* Data from Trademap.

Graph 1 shows the growing trade deficit of the UK in agro-industrial trade with the EU. As seen, this deficit has been driven mainly by a relatively fast import growth that peaked in 2014 with nearly USD 50,000 million. Although since then these imports declined to around USD 43,400 million in 2016, by historical standards they remain at a relatively high level. This has obvious implications for the relevance of the impact of Brexit on UK imports of these products and therefore, on the export opportunities that it would offer to third countries.

Graph 1 Exports, Imports and Balance of UK of Aggregate Agro-Industrial Trade with the EU (million USD)



Source: Data from Trademap.

The UK dependence on the EU as a source of supply of these products has increased by 10% points from 61% in 2001 to 71% in 2016 when they totalled USD 43,480 million (Table 2). In contrast, the share of the EU in UK exports remained relatively constant suggesting that under prevailing CAP policies, in these products the UK has a relative but artificial competitive disadvantage. This and related issues discussed below have led some observers as well as the UK government to call into question the presumed benefits of the CAP to the development of its agricultural sector.

During this period, the UK import share of agro-industrial products from Mercosur declined from 4% to 3.3% (Table 2) which contrast with Mercosur's participation in world agro-industrial exports growing from 6.6% in 2001, to 8.1% in 2016. This

contrasting performance is to an important extent the consequence of trade diversion effects triggered by the CAP as well as the recent enlargements of the EU.⁸

Table 3 shows UK's imports from the EU and from Mercosur for the five most traded agro-industrial chapters. In 2016 these imports totalled USD 20,568 million equivalent to 85% of the UK's imports of these products from the EU (USD 24,196 million). In contrast, the share of imports of these same products from the Mercosur accounted for only 1.3%.

Table 3 UK Imports from the EU and from Mercosur for Five Selected HS Chapters: 2016 (million USD)

HS chapter	Product	UK aggregate imports	UK imports from the EU	UK imports from Mercosur	Share in UK agro-industrial imports from (1)	
					EU	Mercosur
2	Meats	5,460	4,670	184	86%	3%
4	Milk, dairy products	3,502	3,359	3	96%	0%
19	Cereal and milk preparations	3,975	3,629	1	91%	0%
20	Preparations of fruits and vegetables	3,409	2,860	25	84%	1%
22	Alcoholic beverages, vinegar	7,850	6,050	105	77%	1%
Total		24,196	20,568	318	85%	1.3%

(1) The shares in the bottom line are in relation to the total in column 4. *Source:* Data from Trademap.

3 IMPACT OF A HB ON UK AGRO-INDUSTRIAL TRADE

Relying on average MFN tariff rates and import elasticities at the two-digit level of the HS, Lawless and Morgenroth (2016) estimated that a HB would reduce UK-EU aggregate trade somewhere between 22% and 31%.⁹ In this section we use

⁸ In some cases, the share of the EU in UK agro-industrial imports has grown very fast. For example, between 2001 and 2015 these shares grew as follows: frozen boneless meat from 40% to 80%; chicken meat from 78% to 90%; and wine from 40% to 70%. Nogués (2017) discusses evidence of trade diversion effects created by the Mercosur and EU trade policies against each other.

⁹ The width of the range depends on alternative assumptions regarding the elasticity of import demand. For HS Ch. i the proportional trade reduction effect of a HB is estimated by the following expression:

these authors' data for distinguishing between the impact of a HB on agro-industrial products (first twenty-four HS chapters), and the rest (HS chapters 25 to 99) which we call manufactures.¹⁰ We also present simulations of impacts at the more disaggregated level of HS chapters.

The third column of Table 4 shows the simple average MFN tariffs for agro-industrial and manufactured products while the fourth column presents the simple average proportional trade reduction effect of a HB. The important difference between the trade impacts of a HB on both of these groups (50% v. 22%) is to a great extent the consequence of an average MFN tariff for agro-industrial products that is four times the level for manufactures (16% v. 4%). Under these parameters and using 2016 trade figures, a HB would reduce UK agro-industrial imports from the EU by USD 21,653 million. Under a HB UK's agro-industrial exports to the EU would also decline by around 50%. In 2016 the UK exported to this destination agro-industrial products for a total of USD 17,503 million so a HB would leave this bilateral trade at USD 8,750 million. The resulting negative net trade effect of around USD 13,000 million is significant.

Table 4 Simple Average EU MFN Tariff Rates and Trade Reduction Impacts of a HB on UK Imports of Agro-Industrial and Manufactured Products from the EU: 2016 (million USD)

Products	HS chapters	Simple average MFN tariff	Simple average import reduction	UK imports from de EU	Import reduction
Agro-industrial	1–24	16%	49.8%	43,480	21,653
Manufactures	25–99	4%	22.3%	287,126	64,029

Source: Average MFN tariffs and import reduction effects have been inferred from Lawless and Morgenroth (2016) as explained in Appendix A. Trade data from Trademap.

Table 5 shows average MFN tariffs for the same five HS agro-industrial chapters listed in Table 3. Except for alcoholic beverages, the tariffs for the other chapters

$\Delta M_i/M_i = t_i \epsilon_i$ where M: value of UK imports from the EU; t: EU MFN tariff rate, and ϵ_i : import demand elasticity.

¹⁰ The extent to which the methodology used by Lawless and Morgenroth (2016) offers more or less precision than the alternative of gravity equations that characterizes most studies including that by the UK Treasury (2016), has been carefully analysed by Gudgin et al. (2017). These authors conclude that the UK Treasury Report (2016) seriously overestimates the negative trade effects of a HB as it overlooked the fact that on average after joining the EU, the UK harvested lower benefits in trade in goods than other members also joining this market. After adjusting for this omission and re-estimating the gravity equations initially presented in HM Treasury (2016), Gudgin et al. (2017) conclude that the aggregate impact of a HB estimated by Lawless and Morgenroth (2016) 'based solely on tariffs may thus be nearer the true impact than any estimate based on gravity models.' (at 32). Our estimates take comfort from this conclusion.

Table 5 Average EU MFN Tariff Rates and Trade Reduction Effects of a HB: 2016

HS chapter	Product	Average MFN tariff (%)	Import reduction effect (%)	Imports from EU (million USD)	Import reduction (million USD)	UK exports to UE (million USD)	Export reduction (million USD)	Net trade effect (million USD)
02	Meats	49.3	92.9%	4,670	4,338	1,592	1,479	-2,859
04	Milk, dairy products	31.3	66.7%	3,359	2,240	1,337	892	-1,358
19	Cereal and milk preparations	15.1	85.7%	3,629	3,110	1,360	1,166	-1,944
20	Preparations of fruits and vegetables	20.9	88.1%	3,409	3,003	499	440	-2,563
22	Alcoholic beverages, vinegar	3.9	38.1%	6,050	2,305	3,725	1,419	-886
na	Total	na	na	21,117	14,996	8,153	5,395	-9,601

na: not applicable. *Source:* MFN tariffs and import reduction effects have been inferred from Lawless and Morgenroth (2016) as explained in Appendixes A. Trade data from Trademap.

are very high with meats and dairy products being the most protected. In fact, these chapters have the highest and fourth highest MFN tariffs among the ninety-nine HS chapters computed by Lawless and Morgenroth (2016). Moving from near free trade as a EU member to adoption of these high MFN tariffs would trigger a 71% reduction of UK imports of these products or by USD 14,996 million at 2016 prices (from USD 21,117 million). Applying the same proportional reduction effects to the UK exports to the EU leaves a net trade deficit at around USD 9,600 million with meat and preparations of fruits and vegetables experiencing the highest negative net trade reduction effects.

These estimates are likely to be on the conservative side as the weighted average MFN tariff is quite higher than the simple average used in Table 4: 63.4% vs 49.8%. There are four other adjustments that would increase the trade impacts of a HB and three that would reduce them.¹¹ First, within each HS chapter there usually are several products and their individual MFN tariff can be quite different from the average rate. Depending on the patterns of production and trade, these differences are of consequence to different agricultural exporters.¹²

Second, estimates have not taken into account that post-Brexit UK-EU agro-industrial trade may have to overcome higher non-tariff barriers (NTBs) than the existing ones. In fact, the study by Bellora et al. (2017) indicates that for many agro-industrial products, the costs of NTBs such as those that have to be incurred for meeting sanitary and phytosanitary regulations, are higher than the MFN tariffs (Bellora et al. Table 4). This is part of the reason why these authors find an impact of a HB on agro-industrial trade of 62% which is higher than our estimate of 50%. Third, we are not taking into account the fact that a HB also implies the end of the UK membership to the FTAs signed by the EU. In general as noted above, the liberalization of agro-industrial products in these FTAs is not that significant particularly for temperate agricultural products but still there may be exceptions that could affect some products.¹³ Finally, we are also not taking into account the fact that post Brexit UK-EU trade will have to meet rules of origin and eventually trade-defence measures that would add further negative trade effects on bilateral trade flows.

¹¹ (delete this parenthesis used in Table 4 Using the weighted average estimate of 63,4% translates into an import contraction of USD 27,566 million i.e. a difference of USD 5,913 million with the figure actually used of USD 21,653. In order to be conservative we have chosen to base comments on the basis of the simple average MFN tariff.

¹² S. V presents tariff estimates for different meats that show a wide range of variation.

¹³ This trade effect is unlikely to be long-lasting as we do not expect major problems in the UK arriving at trade agreements with Commonwealth countries such as Australia, Canada and New Zealand whom for many if not most agro-industrial products have the potential to substitute the EU as a source of supply (Politico 2018).

There are also a couple of reasons indicating why our numbers could be over-estimating the true numbers. First, the negative impact that further declines in the value of the pound could have on UK imports. Second and most significant, our estimates do not take into account the fact that several agro-industrial products (particularly meats and dairy products) enter the EU under tariff-rate-quotas (TRQs) paying zero or low tariffs for in-quota imports. This implies that the average effective tariff rate of the meat chapter is lower than the bound EU MFN simple average of 49.3%.¹⁴ Finally, as the UK also exports agro-industrial products to the EU, Brexit would lower them thus increasing domestic supply of these products partly compensating its estimated import reduction effect. Nevertheless, the extent to which UK exports to the EU are close substitutes of imports from this origin is a matter of further research.

4 MERCOSUR'S TRADE NEGOTIATIONS WITH THE EU

Paraguay and Uruguay have long motivated Argentina and Brazil to move forward with the Mercosur trade negotiations. Nevertheless, under populist governments these countries (particularly Argentina) reversed their earlier trade liberalization programs and for a decade or so up to late 2015, their salient policy was to admit highly troubled Venezuela into the group. Populism brought not only external paralysis but also and what has been more destructive, a significant retrogression within-market liberalization and flagrant violations of multilateral rules. Argentina by imposing quantitative restrictions on all imports and on major exportables, violated not only the CET (common external tariff), but also several WTO agreements, a behaviour that brought several Members to challenge such actions within the dispute settlement mechanism (Baracat et al. 2015).

Under new governments these countries are now more sympathetic to outward-oriented policies and Mercosur is once again moving forward with its trade negotiating agenda. In addition to adding impetus and enthusiasm to the vintage-old discussions with the EU, trade talks have apparently been initiated with some other countries.¹⁵ The complementarity between the economies of Mercosur and the EU has long been noticed: Mercosur holding a strong comparative advantage in agro-industrial products while the EU showing its stronghold mostly in manufactures, services and intellectual property. Despite the significance of the gains that could be achieved by an ambitious FTA, after close to twenty years since the initial exchange of

¹⁴ I appreciate an anonymous referee for pointing to the importance of this adjustment.

¹⁵ For a list of ongoing Mercosur trade negotiations see www.sice.oas.gov. Brazil's new finance Minister has stated that his country would propose to the other Mercosur members shifting their trade agreement from a common market to a FTA. Nevertheless formal discussions on this proposal have not been initiated nor has any date been announced for this to happen.

market offers took place, these negotiations remain to be completed.¹⁶ On the surface and from the perspective of Mercosur, one of the salient reasons for this situation has been the EU unwillingness to offer concessions in agro-industrial products of an order of magnitude that would translate into a balanced agreement.¹⁷ Nevertheless we also stress that the failure to reach agreement is functional to the interests of highly protected and politically powerful Mercosur industries (Nogués 2004).

Since then, three events have reduced even more the likelihood of the EU coming closer to Mercosur's revealed market access demands. First, the trade effects of the 2004, 2007 and 2013 enlargements of the EU to thirteen central and eastern European countries (CEECs) many of which have comparative advantage in agro-industrial products (Anderson and Swinnen 2009). These enlargements increased the EU28 degree of self-sufficiency to the detriment of competitive agricultural exporters (Drabik and others 2007 and Nogués 2017).¹⁸

Second, the EU-Canada FTA known as CETA (Comprehensive Economic and Trade Agreement) that entered into force in September 2017 has been characterized as ambitious in terms of the market access concessions given by the EU in agro-industrial products (Government of Canada 2017, and European Commission 2017).¹⁹ Under CETA many agro-industrial tariff lines where Mercosur is competitive, have been liberalized including fresh apples, animal feed, wheat flour, and dairy products. Also, under CETA Canada is allowed to raise its exports to the EU in stages to 50,000 tons of duty-free beef, as well as 80,000 tons of pork (Reuters 2017a). The beef quota is only 20,000 tons lower than that offered by the EU to Mercosur but while in 2016

¹⁶ This initial exchange took place in 2001 at the IV Meeting of the Birregional Negotiating Committee (BNC, Comité Birregional de Negociaciones) where the EU already showed minimal interest in liberalizing trade in temperate agricultural products (Nogués 2004). Since then, the BNC has met more than twenty times to no avail.

¹⁷ Several media articles have informed about these tensions adding specifically that the size of the EU beef quota offered to Mercosur remains a sticking point. On the other hand, we say 'apparently' because the slow pace of progress, is functional to highly protected and politically powerful Mercosur industries (particularly in Argentina and Brazil), that in the event of a trade agreement would suffer displacements by imports from the EU.

¹⁸ These new acceding countries had to increase the rate of assistance to their agro-industrial sectors up to the level mandated by the CAP expanding the negative trade consequences of these policies. For example, Drabik et al. (2007) have noted that: 'a review of the detailed data shows that there are many cases when the gradual liberalization increased Slovakia's agricultural imports from the EU15 + CEEC (Central and Eastern European Countries) while at the same time Slovakia agricultural imports from the ROW decreased. This is an indication that imports from the EU15 + CEEC, which are positively discriminated against, replaced imports from the ROW, an indication of trade diversion'.

¹⁹ These declining incentives for the EU to offer the sufficient market space to Mercosur in order to arrive at an agreement is made nowhere more clear than in the case of beef. According to Mathews (2018): 'The EU has gradually reduced the proposed amount of beef it would accept from the Mercosur from 100,000 tons per year in 2004, to 78,000 tons in 2016, to 70,000 tons in 2017'. As indicated below, this trend has been influenced by increasing imports from the CEECs substituting EU15 imports that previously came from third countries.

Canada's world beef exports amounted to 309 thousand tons (fresh and frozen bovine meat), Mercosur's was 8,918 thousand tons, i.e. 29 times higher!²⁰

Finally, because as seen above Brexit would reduce EU's agro-industrial exports to the UK quite significantly, the resulting excess supply will put downward pressures on continental food prices increasing the already high resistance by these farmers to further import competition.²¹ Mathews (2018) adds that 'Brexit also makes the EU a less attractive potential partner, and may make it more difficult for the EU to negotiate as favorable terms in future trade deals as it might otherwise have done' (page 12).²²

Brexit entails other bad news for EU farmers as the UK puts more financial resources into the EU budget than it takes from it. Preliminary estimates suggest that unless other donors meaning Germany in particular, close the funding shortfall implied by Brexit, farmers in the continent could face an average cut in the CAP subsidies they are now receiving by around 5% (Reuters 2017).

Therefore, if in the early years of the millennium a balanced and ambitious Mercosur-EU FTA remained a long shot, these three events (the EU enlargements to the CEEC-Central and Eastern European Countries); the agro-industrial concessions granted by the EU to Canada under CETA and other FTAs and most importantly, the trade and financial consequences of Brexit), have put such a goal even further out of reach.²³ Perhaps given these factors and the uncertainties that nationalists and populist forces have brought into the EU, in the event of Brexit, the priority of Mercosur's negotiations with these two partners may have to be reconsidered in order to get the highest payoff from the scarce negotiating resources it has at its disposal.²⁴

²⁰ Because of the important concessions given by the EU to Canada, CETA is probably the salient example of why our commission in S III to include the impact of Brexit ending the UK's membership in the FTAs signed by the EU, leads to an underestimate of the export opportunities that Mercosur would eventually face under a HB in the UK market. Nevertheless as mentioned above, post-Brexit leaders of Commonwealth countries such as Canada have stated that they are prepared to engage in trade talks soon after Brexit (Politico 2018).

²¹ This reluctance has been made quite clear by France and other EU members (RFI 2018) and as indicated above, by Commissioner Malmström.

²² During 2016 UK beef imports from the EU amounted to USD 4,670 million and a HB would eliminate most of this trade thereby pushing lower beef prices in the continent. This impact would be partially compensated by lower UK beef exports to the EU but there still remains a significant negative net trade impact (Table 5). The EU could also try to seek new buyers in international markets for its Brexit-induced excess food supply adding competitive pressures on Mercosur exports. In this paper, we do not address this effect.

²³ Suggestions from academic circles that the EU should be less ambitious than seeking an FTA with Mercosur have also been made (Messerlin 2013). In part, this view is driven by concerns regarding the uncertain spirit of openness that Mercosur showed at the time.

²⁴ It has now been several years since the objectives of the founding fathers of European integration appear to be challenged by problems that could not have been foreseen at the time. See Germond (2009) for an historical discussion of Europe's integration process.

5 ABOUT A MERCOSUR-UK FTA

In agro-industrial products Mercosur and the UK are also complementary economies so given their size, the gains from an FTA would be quite important, perhaps more than any other trade deal being considered except with the EU.²⁵ In addition, in the event of Brexit, a number of non-economic considerations also make such an FTA attractive. After summarizing them, this section will discuss briefly the future of the UK's agricultural policies and finally, it offers back-of-the-envelope estimates of the impacts that a HB could have on Mercosur's meat and agro-industrial exports generally, to the UK.

5.1 NON-ECONOMIC CONSIDERATIONS

Four non-economic considerations make the UK attractive as a partner with whom to complete a relevant FTA. First, although ongoing conversations suggests that it may be delayed, at the moment of completing the revision of this paper Brexit deadline is late March 2019 with a transition period lasting until December 2020. This is important and quite unique among trade negotiations that generally have no deadline and consequently can drag on for years as the Mercosur-EU discussions show. Second, the broad nature of the market exchange that would characterize a Mercosur-UK FTA is expected not to be very different from the exchange being discussed with the EU: essentially a liberalization of Mercosur's services, protected manufactures and strengthening of intellectual property in exchange for greater access to agro-industrial markets. Therefore, the experience gained through years of negotiating with the EU can fruitfully be used for talks with the UK and this is certainly a time-saving factor. Third, given that the UK GDP is approximately one sixth the size of the EU28, Mercosur's concessions need not be as important as those demanded by the EU. This should help to placate domestic pressure groups thereby increasing the likelihood of reaching an agreement.²⁶

Finally, a draft agreement with the UK should be relatively easy to have ratified by the five Parliaments particularly given the fact that the UK government has expressed quite clearly that upon leaving the EU, it will be moving to a market-oriented agricultural sector much as it was before joining it in 1973.

²⁵ In practically all of the first twenty-four HS chapters where the UK records a trade deficit, Mercosur shows a surplus.

²⁶ Although in this paper our aim is to stress the importance of a Mercosur-UK FTA for its export interests, we recognize that there are other significant gains to be achieved through increased import-competition (perhaps more important than the export gains quantified below) as Mercosur remains a highly protected group of economies.

These four aspects (closeness of Brexit deadline; accumulated negotiating experience with the EU; the relatively higher likelihood of reaching an agreement and the relative easiness of ratification), increase the attractiveness of negotiating an FTA with the UK.

5.2 THE FUTURE OF THE UK'S AGRICULTURAL POLICIES

In early 2018, the UK Secretary of State for Environment, Food and Rural Affairs (2018) presented to the Parliament a document for public consultation entitled: 'Health and Harmony: the future for food, farming and environment in a green Brexit' outlining objectives for its agricultural sector that depart loudly from those that have prevailed under the CAP. Some excerpts from the prologue read as follows: 'For more than forty years the EU's Common Agricultural Policy has decided how we farm our land, the food we grow and rear the state of the natural environment. Over the period the environment has deteriorated, productivity has been held back and public health has been compromised',²⁷ and CAP subsidies which have been 'skewed to those with the biggest landholdings has kept land prices and rents high ... and held back innovation' (page 5).²⁸

In this document the Government's policy proposals are expected to result in a 'more dynamic, more self-reliant agriculture industry as we continue to compete internationally' (page 6). By dismantling the CAP subsidies the post-Brexit policy direction would be towards a market-oriented agricultural sector and although subsidies are proposed to continue, they would not be tied to land size as in the CAP but to environmental goals: the catch phrase is 'public money spent on public goods'.²⁹ Regarding trade policies, the proposal emphasizes signing FTAs with countries that currently have agreements with the EU and also, 'with a number of countries that have a keen interest in doing so' (page 62).³⁰ This UK interest in signing trade agreements is driven at least in part by the impact that Brexit would have on domestic food prices.

²⁷ Similar and serious damages to the environment attributable to the CAP are also occurring in the continent (Stijns 2018).

²⁸ As has been the case with several other countries, after joining the EU in 1973 the UK had to adopt the highly protectionist CAP policies. The suggestion that decades of agricultural policies under the CAP have not been good for UK agriculture has previously been made among others by Helm (2016) and Swinbank (2017).

²⁹ As agricultural policies are part of the devolved administration, the proposals in the document apply to England while Scotland, Wales and Northern Ireland will be free to decide their own policies. Because in these regions, the CAP subsidies provide the bulk of farmer's income, dismantling and substituting them with other forms of assistance will be quite more challenging (Mathews 2018).

³⁰ Also given that in the future subsidies for agricultural related public goods will have to compete with subsidies for areas such as health and education, it appears unlikely that public money for this sector will remain at the level currently available under the CAP. The UK government has confirmed that such a level will be maintained until 31 Dec. 2020 but there is no commitment after this date.

Research by Clarke et al. (2017) concludes that under a HB food prices would rise well above average inflation. These authors report the following adjustments of consumer prices: dairy products: 8%; oils and fats: 8% and meat: 6%. These effects are over and above the impact that a lower pound has already had on prices. Also, a Brexit-induced food price inflation would be tilted against the lowest quintiles and the unemployed. Confronted with such a situation the UK would likely move quite rapidly to secure food supplies by liberalizing trade.³¹

5.3 ASSESSING THE MERCOSUR EXPORT OPPORTUNITIES: BACK-OF-THE-ENVELOPE ESTIMATES

In assessing a Mercosur-UK agreement it is also important to stress the implications of the choice faced by the UK of eventually liberalizing unilaterally priority sectors including some food products, or negotiating access to its market through FTAs. Mercosur could certainly wait for unilateral liberalization but: Which products would the UK liberalize first? By how much? Would these products be the ones where it has a strong comparative advantage? and most importantly: How high would tariff discrimination against Mercosur exports be in a non-FTA scenario while other efficient exporters including Commonwealth countries move in and sign trade agreements with the UK? In fact, informal talks are already moving forward with some of these countries, and common sense suggests that in the event of Brexit, FTAs with them would be completed sooner rather than later. Therefore, the option of Mercosur waiting for the UK to implement unilateral liberalization is risky and as has been the case with the enlargements of the EU and other agreements, a late reaction is unlikely to retain the trade opportunities that could be seized early on in the post-Brexit period.³² In what follows, we offer back-of-the-envelope estimates that illustrate the export opportunities that a HB could eventually open to Mercosur.

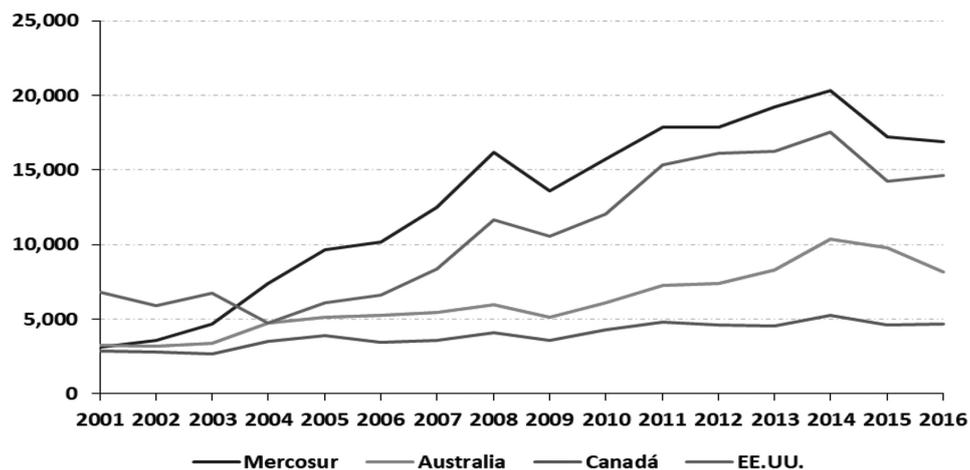
5.3[a] *Meat Exports*

As hinted above, the fact that in spite of the strong export performance of Mercosur as the leading world meat exporter illustrated in Graph 2, the fraction that has gone to the EU is well out of proportion. In 2016 the EU imported meat for a total of USD 41,418 million of which Mercosur's share was 5.4% while its share in world meat exports was close to three times higher: 14.9%.

³¹ For a number of reasons listed in their paper, Clarke et al. (2017) conclude that their food price estimates are conservative.

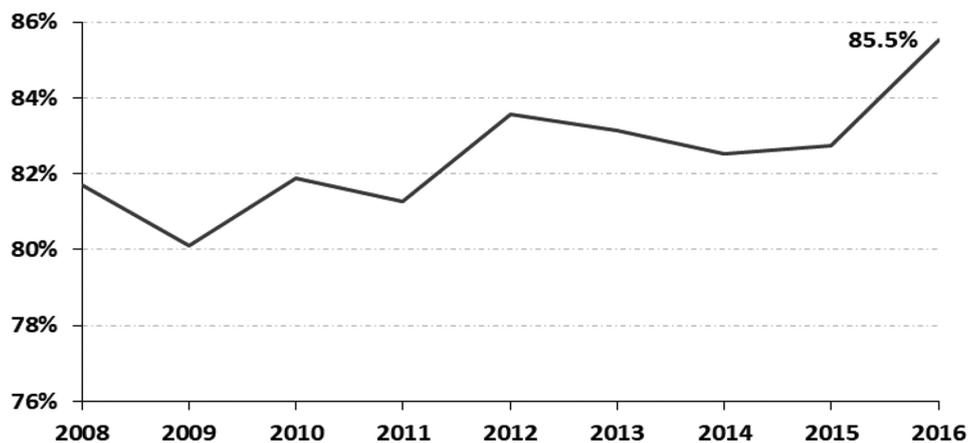
³² The history of Mercosur is also one characterized by a chain of trade integration opportunities that it let pass.

Graph 2 World Meat Exports (million USD)



Source: Data from Trademap.

Graph 3 UK Meat Imports from the EU as a Proportion of UK's Aggregate Meat Imports



Source: Data from Trademap.

Graph 3 shows that the UK has increasingly relied on meat imports from the EU and in 2016 the share from this origin reached 86% (equivalent to USD 4,670 million) while Mercosur's share was only 3%. Although a number of factors can account for this high degree of market specialization, the CAP is a primary suspect. In a non-CAP world these import shares would likely be quite different and this assertion can be partly supported by going back to 2001 before the EU enlargements to the CEEC countries. Then Mercosur's share in UK meat imports was 7% (more than two times higher than in 2016), while the EU15 share was 78% (8% points lower than the share it had in 2016). The EU enlargement goes a long way in explaining the important decline in Mercosur's share in the UK market. For example, in 2001 Poland, Rumania, Hungary and Bulgaria accounted for a mere 0.1% of the UKs meat imports but by 2016 their share had increased to 14%.

Brexit would partially reverse this this EU increasing degree of selfsufficiency in agro-industrial products. How could this impact on Mercosur's exports?

A first approximation is offered in Table 6. Here columns 3 and 4 show UK imports from the EU for different kinds of meats while column 5 shows estimates of MFN tariffs at the four-digit level of the HS (appendix B for the details). The numbers here range from an average MFN tariff of 31% for pig-meat, to 92% for frozen bovine meat. Applying uniformly an import elasticity of -1.9 (appendix A) inferred from the data in Lawless and Morgenroth (2016)³³ the resulting trade effects are presented in columns 6 and 8. According to these numbers, in quantity terms a HB would curtail UK meat imports from the EU by 80% (1.2 million tons) and 83% in value terms (USD 3,895 million). The hardest hit imports would be chicken and bovine meat and the EU exporters that would be most affected would be Netherlands for chicken meat and Ireland for bovine meat (see also Donellan and Hanrahan 2016, and Swinbank 2017). Part of this import contraction would be compensated by lower exports from the UK to the EU that Brexit would also trigger.³⁴

Eventually, these estimates need to be adjusted by the agreement to be reached between the UK and the EU regarding the apportionment of the imports that now enter the EU under tariff-rate-quotas according to which in-quota volumes pay zero or very low tariffs while out-of-quota imports pay the high bound MFN tariff used in our estimates.³⁵ Several meat products now

³³ For the sake of comparison, we also present estimates with an import demand elasticity of -1 shown in columns 7 and 9.

³⁴ Although probably the extent to which these meat exports are close substitutes of meat imports is low.

³⁵ In 2017 the UK and the EU reached an agreement in principle regarding this apportionment but it was later contested by some meat exporting countries. The agreement in principle is that: 'The UK share of a given quota was worked out by determining the UK's usage share (expressed in percentage) and applying it to the tariff-rate-quota volume.' (European Commission 2018). In any case, omitting the impact of TRQs implies an overestimation of post Brexit UK import demand as our numbers are based solely on MFN tariffs.

Table 6 EU MFN Meat Tariffs and Impact of HB on UK Imports from the EU

HS line	Product	UK imports from EU in 2016		EU MFN tariff (%)	UK import reduction (tons) from EU assuming import elasticity of:		UK import reduction (USD) from the EU assuming an import elasticity of:	
		Value (000 USD)	Quantity (tons)		-1.9	-1	-1.9	-1.0
0201	Fresh bovine meat (1)	1,020,205	178,832	56	178,832	100,146	1,020,205	571,315
0202	Frozen bovine meat (1)	193,093	63,427	92	63,427	58,353	193,093	177,646
0203	Pig meat	1,047,076	438,464	31	258,255	135,924	616,728	324,594
0204	Sheep meat	46,335	9,913	50	9,417	4,957	44,018	23,168
0205	Horsemeat	0	0	45	0	0	0	0
0206	Meat residues	45,418	29,594	47	26,427	13,909	40,558	21,346
0207	Chicken meat	1,519,218	492,025	41	383,287	201,730	1,183,471	622,879
0208	Meats of rabbits, etc.	16,277	3,862	47	3,449	1,815	14,535	7,650
0209	Meat fats	7,758	8,246	47	7,364	3,876	6,928	3,646
0210	Salted, dried and smoked meats (1)	775,066	249,829	55	249,829	137,406	775,066	426,286
Total	—	4,670,446	1,474,192	47	1,180,288	658,115	3,894,602	2178,530

Note: For three tariff lines (0206, 0208 and, 0209) we have assumed an MFN tariff equal to the weighted average (by UK imports from the EU) of the other seven sectors. *Source:* Trade data from Trademap and MFN tariffs from appendix B.

enter the EU under TRQs.³⁶ As a first approximation, for any given product, the impact of a HB determined by the MFN tariff as presented in Table 6 should be netted by the in-quota volume that the UK will eventually receive following Brexit.³⁷

Keeping in mind this adjustment as well as others listed above,³⁸ where could a HB leave Mercosur's meat exports to the UK? Constant-share analysis is a simple way of providing a back-of-the-envelope estimate. Under the following assumptions and using 2016 trade data, in the event that it signs an FTA with the UK, Mercosur could increase its meat exports quite significantly if:

³⁶ The list of products entering the EU under TRQs and the agreement in principle of the UK share can be consulted in European Commission (2018). TRQs are particularly relevant for meat and dairy products.

³⁷ For example, in Table 6 we estimate that a HB would eliminate UK imports from the EU of salted, dried and smoked meat equivalent to 249,829 tons. Nevertheless, currently in the EU Brazil has a TRQ for salted poultry meat of 170,807 tons and the agreement in principle is that the UK would receive a 28.9% share or 40,877 tons (European Commission 2018). Assuming that post-Brexit and through liberalization measures the UK returns to its pre-Brexit level of imports, the opportunities for other exporting countries have to be estimated by netting out Brazil's quota.

³⁸ Several of which we remind, would increase the trade effects.

Trade flow	Meat	Agro-industrial
Pre-Brexit UK imports from EU	4,670	43,480
Post-Brexit UK imports from EU	723	21,827
UK import contraction from HB	3,947	21,653
UK import contraction net of 25% assumed to be supplied by the EU	2,960	16,240
World exports net of intra EU trade	74,895	1,025,534
World exports net of trade with the EU:		
– Mercosur	14,950	94,674
– US	14,381	128,053
– Australia	15,506	28,749
– Canada	4,635	47,667
– EU net	11,395	145,202

Source: Data from Trademap.

(1) over time the UK returns to its pre HB level of meat imports from the EU; (2) facilitated by years of common administration of the EU's NTBs and/or under an FTA, post-Brexit the EU supplies 25% of the compensating increase in UK imports assumed in (1) and, (3) third countries fill the remaining 75% in proportion to their share in world meat exports net of the EU.³⁹ In 2016, Mercosur's share in world meat exports was 20% so applying this proportion to the increase in the UK's imports (USD 2,960 million), yields USD 592 million of additional meat exports to the UK which is more than three times what Mercosur actually exported to this market in that year (USD 184 million).⁴⁰

5.3[b] *Agro-Industrial Exports*

Under the three assumptions listed above for meat trade, following a HB Mercosur would eventually export around USD 1,600 million more of agro-industrial products to the UK (=share of Mercosur in world agro-industrial exports net of intra EU trade -11.3%- times the level of UK import contraction net of the 25% assumed to be supplied by the EU (USD 16,240 million). This is close to double what Mercosur exported to the UK in 2016: USD 1,723 million. The following Table shows the main numbers supporting these back-of-the-envelope estimates.

We remind that the extent to which Mercosur could potentially supply these exports to the UK depends on a number of critical factors including whether: (1) in fact the UK returns to the pre-Brexit level of agro-industrial imports or close to it; (2) it can conclude an FTA with the UK at par with other exporters like the Commonwealth countries to which the UK has resorted in difficult times (Bromhead and others 2017); (3) it can meet the stringent quality standards that will be demanded by the UK and, (4) it can maintain its growth momentum by not discriminating against its exports as Argentina did for a decade or so until late 2015.⁴¹

³⁹ We net-out intra-EU trade under the assumption that most of it represents diversion created by the high protective barriers of the CAP.

⁴⁰ The US and Australia have quite similar shares to that of Mercosur's but because these countries are free of hoof and mouth disease 'without vaccination', they export beef at higher unit prices.

⁴¹ In response to high and discriminatory trade barriers including arbitrary export quotas that were administered between 2006 and 2015, Argentina's cattle stock declined by around 10 million heads from 60 million while the export/output ratio declined from around 15% in the early millennium years to 7% shortly before these barriers were lifted in late 2015 (Nogués 2015).

6 FINAL REMARK

We estimate that a HB would reduce UK agro-industrial imports from the EU by around 50%. In the event of Brexit and the dismantling of the CAP, the UK Government would adopt market-oriented agricultural policies and negotiate FTAs seeking to minimize the impact on domestic food prices from leaving the EU. How could Brexit impinge upon agricultural-exporting countries? We offer an answer for Mercosur countries that have been negotiating an agreement with the EU for close to two decades yet to no avail or worse, as successive enlargements to several CEECs have increased its degree of self-sufficiency in agro-industrial products. Also, and in addition to the role played by highly protected and politically powerful interest groups on both sides against a Mercosur-EU trade agreement, the discussion highlights other factors that also underlie this failure.

If Mercosur members want to truly liberalize trade by gradually signing successive FTAs as other countries in the region have successfully done so then in the event of Brexit, the discussion suggests that they should consider giving priority to the UK. Economic and non-economic considerations addressed in the paper indicate that a Mercosur-UK FTA is likely to be attainable within a relatively short period of time. Back-of-the-envelope numbers show that under such an FTA these countries could close to double their agro-industrial exports to this market. Nevertheless, failing to move decisively, this potential trade gain would be lost to other exporting countries including Commonwealth members.

APPENDIX A BASIC DATA

For individual HS chapters Table A shows MFN tariffs and the proportional trade impacts triggered by a HB.

Table A MFN Tariffs and Trade Reduction Effects of a HB

HS chapter	Product	MFN tariffs	Trade impact of a HB
01	Live animals.	1.0%	-19.0%
02	Meat and edible meat offal	49.3%	-92.9%
03	Fish and crustaceans, etc.	8.4%	-40.5%
04	Milk, dairy products, etc.	31.3%	-66.7%
05	Products of animal origins.	0.0%	-0.0%

HS chapter	Product	MFN tariffs	Trade impact of a HB
06	Live trees and other plants and flowers.	4.2%	-23.8%
07	Edible vegetables.	5.6%	-42.8%
08	Fruits.	7.5%	-35.7%
09	Coffee, tea, mate, etc.	4.1%	-26.2%
10	Cereals.	45.7%	-57.1%
11	Products of the milling industry, etc.	26.9%	-88.1%
12	Oil seeds and oleaginous fruits.	2.5%	-6.6%
13	Lac; gums, resins, etc.	1.5%	-7.2%
14	Vegetable planting materials, etc.	0.0%	-0.0%
15	Animal and vegetable fats and oils.	6.5%	-47.6%
16	Preparations of meat, fish, crustaceans, etc.	33.3%	-95.2%
17	Sugars and sugar confectionery.	42.0%	-97.6%
18	Cocoa and cocoa preparations.	11.8%	-69.0%
19	Preparations of cereals, etc.	15.1%	-85.7%
20	Preparations of vegetables, fruit, etc.	20.9%	-88.1%
21	Miscellaneous edible preparations.	14.4%	-87.0%
22	Beverages, spirits and vinegar.	3.9%	-38.1%
23	Residues and waste from the food industry, etc.	19.0%	-35.7%
24	Tobacco and manufactured tobacco substitutes	38.1%	-45.2%
Simple average of chapters 1 to 24		16.4%	-49.8%
Simple average of chapters 25 to 99		4.0%	-22.3%

Source: Columns 3 and 4 have been Inferred from Figures 3 and 8, and Figure 9 respectively in Lawless y Morgenroth (2016).

The import demand elasticity for UK meat imports (ϵ_m) has been computed by:

$$\epsilon_m = (\Delta M_m / M_m) / t_m$$
 where $\Delta M_m / M_m$ is the proportional variation of meat imports (HS chapter 02) listed in the last column of Table A, and t_m is the MFN tariff rate listed in the third column. Thus, for the meat chapter used in Table 6 $\epsilon_m = -1.9$.

APPENDIX B EU MFN MEAT TARIFFS

EU MFN tariffs for meats are a composite of ad-valorem and specific tariffs. The ad-valorem equivalent (AVE) have been estimated following the guideline suggested in European Commission (2005) according to which for product j :

$$AVE_j = S_j / (0,25UVE_j + 0,75UVW_j) \quad (a)$$

where S : specific tariff per unit; UVE : unit value of imports from the EU and, UVW : unit value of imports from the rest of world. Given that most of UK's agro-industrial imports come from the EU we simplify to the following expression:

$$AVE_j = S_j / UVE_j \quad (b)$$

In most cases, for each product there is a range of specific tariffs. Consequently, several AVEs have been estimated by:

$$AVE_j = [(S_{maxj} + S_{minj}) / 2] / UVE_j \quad (c)$$

where S_{max} and S_{min} are the maximum and minimum specific tariffs.

The third column of Table B shows ad valorem tariffs and the next four columns the minimum, maximum and average specific tariffs in euros and dollars. Following are the unit values estimated with 2016 trade data and the final two columns show AVEs and our estimates of the EU MFN tariffs (ad valorem plus specific). Estimates of AVEs are computed at the six-digit level for the main trade positions and transformed to the four-digit level either by simple correspondence (i.e. 0201, 0202, 0205 & 0210), or by simple average of the main six digit positions (which was the case for 0203, 0204 and 0207). These four digit estimates are then used in the text (Table 6) to simulate the trade effects of a HB.

Table B Meat Products: EU MFN ad-valorem and Specific Tariffs

HS	Product	Ad valorem tariff (%) (2)	Specific tariff				Unit value in USD/ ton (3)	EU MFN tariff	
			Min	Max	Average in euros	Average in USD/ ton (3)		AVE	Ad valorem +AVE
020130	Bovine meat, fresh	13	221 EUR/100 kg	221 EUR/100 kg	221 EUR/100 kg	2,453	5,704	43	56
Average 0201	—	—	—	—	—	—	5,704	—	56
020230	Bovine meat, frozen	12	221 EUR/100 kg	304 EUR/100 kg	263/100 kg	2,919	3,265	80	92
Average 0202	—	—	—	—	—	—	3,265	—	92
020312	Pig meat	0	60 EUR/100 kg	78 EUR/100 kg	64/100 kg	640	1,959	33	33
020319	Pig meat	0	47 EUR/100 kg	87 EUR/100 kg	67/100 kg	744	2,596	29	29
020329	Pig meat	0	47 EUR/100 kg	87 EUR/100 kg	67/100 kg	744	2,365	31	31
Average 0203	—	—	—	—	—	—	2,307	—	31
020443	Sheep meat	13	235 EUR/100 kg	235 EUR/100 kg	235 EUR/100kg	2,609	4,322	60	73
020422	Sheep meat	13	142 EUR/100 kg	168 EUR/100 kg	155 EUR/100kg	1,721	6,265	27	40
020442	Sheep meat	13	90 EUR/100 kg	168 EUR/100 kg	129 EUR/100kg	1,432	5,997	24	37
Average 0204	—	—	—	—	—	—	5,528	—	50

HS	Product	Ad valorem tariff (%) (2)	Specific tariff				Unit value in USD/ton (3)	EU MFN tariff	
			Min	Max	Average in euros	Average in USD/ton (3)		AVE	Ad valorem +AVE
0205	Horsemeat	0	0	0	0	0	nc	0	0
Average 0205	—	—	—	—	—	—	—	—	0
0206	Meat residues	—	—	—	—	—	1,777	—	47
020713	Chicken meat	6	101 EUR/100kg	102 EUR/100kg	102 EUR/100kg	1,132	3,204	35	41
020714	Chicken meat	6	101 EUR/100kg	102 EUR/100kg	102 EUR/100kg	1,132	3,339	34	40
Average 0207	—	—	—	—	—	—	3,272	—	41
0208	Meat of rabbits, etc.	—	—	—	—	—	4,863	—	47
0209	Meat fats	—	—	—	—	—	940	—	47
021019	Salted, dried & smoked meats	15	60 EUR/100kg	151 EUR/100kg	106 EUR/100kg	1,177	3,102	40	55
Average 0210	—	—	—	—	—	—	—	—	55

Notes: (1) decimals have been rounded; (2) when more than one ad-valorem rates applies, we use the simple average of the extreme values; (3) estimates of unit values are from 2016 trade statistics of UK imports from the EU; (4) specific tariffs are transformed from euros to dollars using the average 2016 exchange rate of USD 1.11 per euro and, (5) for three tariff lines (0206, 0208 and, 0209) we use the weighted average (by UK imports) of the MFN tariff from the other sectors: 47% and, (6) we have estimated unit values from UK world imports. Source: Trade data from Trademap and tariff data from WTO integrated tariff data: https://www.wto.org/english/tratop_e/schedules_e/goods_schedules_table_e.htm.

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