Brexit: estimating tariff costs for EU countries in a new trade regime with the UK

by Rita Cappariello*

Abstract

This study estimates the average tariffs that the producers of each of the 27 EU countries could face when exporting to the UK in the event that a new Free Trade Agreement is not reached as part of the Brexit negotiation and that trade between the EU and the UK is conducted under WTO most-favoured-nation terms. The analysis is based on information from the WTO-IDB database and on bilateral trade flows at the product level published by UN Comtrade. The results show that average tariff costs would be different across EU countries, depending on the initial level of commercial relationships with the UK and on the sectoral composition of trade flows. Different tariff costs may potentially create a strong heterogeneity in the EU economies with regard to their stakes in the negotiations with the UK, and have an impact on the establishment of the EU position, to which each Member State contributes equally.

Keywords: tariffs, protectionism, Brexit.

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1. Introduction[1]

One of the main implications of Brexit is that for the first time since its inception the European Union could be called to establish and run an independent trade policy with a country that was once a Member State. Hence, after notifying the intention to withdraw from the EU pursuant the Article 50 of the Treaty on European Union, the UK will have to negotiate with the EU all aspects of their future relationship.

The choice of a new regime of trade in goods will depend on the negotiation power of the two parties, both of which are characterised by different economic and political aims. The European Commission is in charge of trade policy on behalf of its Member States; however, the implementation of commercial policy is in itself object of discussion amongst all 27 governments and the European Parliament. In other terms, the Commission negotiates trade agreements, but with the mandate of the EU Member States' governments. The final agreements are approved by the European Parliament and if they cover regulatory issues and policy areas that go beyond tariffs, such as services, investment, competition, and intellectual property rights protection ("mixed agreements"), individual Member States too ratify them according to their national ratification procedures. In the recent past, national parliaments and the public opinion have also actively, and ever increasingly, intervened in the debate on new EU trade agreements. As an example, in April 2016 Dutch citizens voted down the EU treaty with Ukraine in a referendum, although the trade part of the deal had already entered into force.

The guidelines adopted by the European Council following the UK's notification under Article 50 have stated that "throughout these negotiations the Union will maintain its unity and act as one with the aim of reaching a result that is fair and equitable for all Member States and in the interest of its citizens". However, the creation of a single EU position could imply a complex process because each of the 27 Member States may have different preferences and incentives with regards to what it aims at and what it could be ready to concede in the negotiations with the UK.[2]

A recent publication on the Vox.Eu web-site gathered the opinions of international academics on the main issues that the European Union would face after the Brexit vote (Wyplosz, 2016). The book examines the position of each Member State by reporting the point of view of an economist of that country. However, also due to its significant timeliness, it lacks a fully consistent cross-country comparison of the costs that each country would potentially face on many issues, such as trade, FDI, labour mobility, as a result of Brexit.

This study contributes to partially fill this gap by looking in detail at one of these issues, i.e. the choice of the new regime in goods trade between the EU and the UK. It compares briefly three possible commercial regimes: (i) the Customs Union; (ii) some kind of Free Trade Agreement (FTA); and (iii) the World Trade Organization (WTO) framework. In

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[2] De Grauwe (2016) highlights that there could even be a divide within a given Member State on the position to keep in the negotiation with the UK, as in the case of Belgium. According to this scholar, it is in the long-term interests of a country like Belgium to avoid a deal between the UK and the EU whereby the UK maintains the benefits of the Union without, however, sharing the costs, because such an arrangement would weaken the EU. Yet, since the largest part of Belgian exports to the UK are produced in the Flanders region, this generates a potential political split along linguistic lines over the issue of the Belgian government's negotiation strategy towards the UK government, with Flemish politicians more likely to pursue an accommodating stance, and French-speaking politicians more prone to following a hard stance in the Brexit negotiations.

particular, this analysis focuses on the case in which a new FTA is not reached as part of the Brexit negotiations and UK trade with the EU is conducted under WTO most-favoured-nation (MFN) terms. This scenario entails the introduction of tariff measures that imply costs on trade for each EU-27 member, the amount of which depends on the country's initial level of trade engagement with the UK and on the sectoral composition of its exports.

The paper puts forward an exercise aimed at measuring the average tariff rates that each EU Member State and the UK would face after Brexit by taking the EU regulatory effective tariff rates as a benchmark; a focus on Italy complements the general results. The analysis is based on the assumption that the UK would apply MFN tariff rates which are equal to the EU's current MFN rates on its imports from the EU-27 countries. The hypothesis that at least at the beginning the UK will inherit the EU's tariff schedule is indeed plausible since the adoption of a new tariff schedule within the WTO would imply a very sluggish process.

For simplicity, a further (implicit) assumption of the exercise is that tariffs are entirely paid by the consumer (the importer) and this is the reason why the levels of tariffs are calculated on import flows. This is an assumption that is consistent with the US Congress's Joint Committee on Taxation (2015) estimates of excise tax incidence. Since the analysis does not take into account the elasticity of exports to a potential increase of prices induced by tariffs, it follows a static and partial equilibrium approach. Indeed the impact of a tariff is generally shared by both the consumer (the importer) who purchases the good at a higher price or substitutes it with another product and the producer (the exporter) who may face a contraction in demand because of the tariff or may absorb the costs by reducing her mark-up in order to continue to sell at a competitive price. Some papers find that tariff cuts do not imply lower prices to buyers when tariffs are lowered only for one trading partner (Arkolakis et al. 2015, Edmond et al. 2015). In another study, De Blas and Russ (2015) point out that when tariffs are lowered toward more than one trading partner, the cuts are more likely to be passed on to the buyer due to the threat of competition from other suppliers. However, recent empirical evidence on the impact of an *increase* in tariffs on the price of imported products is still missing. For this reason it is even more difficult to accurately estimate the elasticity of exports to a *potential* increase in prices induced by a *potential* increase in tariffs at the aggregate, national level.

In light of these considerations, the empirical analysis presented below is not aimed at evaluating the impact of tariffs on trade flows, which depends on the pass-through of tariffs on prices, that may well differ across sectors and counterpart countries, as well as on the elasticity of trade to prices.[3] Moreover, regulatory differences and other non-tariff measures (NTM) could increase the costs of trading goods between the EU and the UK. However, since the UK is currently compliant with all EU regulations, the evaluation of potential tariffs appears to be the first step in understanding and assessing the consequences of a change in the trade regime between the EU and the UK. Finally, the study does not consider the role of trade in services, in particular, financial services, which would deserve a separate analysis.

The paper is organized as follows. Section 2 describes the direct trade links with the UK for each EU-27 country. Section 3 reviews and discusses the different options for a new trade regime between the EU-27 and the UK. Section 4 reports the estimates of the potential

[3] A recent study by Lawless and Morgenroth (2016) estimates the impact of the introduction of a WTO regime on trade flows. In the absence of information on market structure, the crucial (and strong) assumption of the analysis is that tariffs are entirely passed through to prices. Moreover, despite the strong heterogeneity of MFN tariffs across products (even within the same sector), the analysis adopts a broad sector-level elasticity to evaluate the impact of tariff-induced changes of prices on trade. The authors estimate a fall of the EU-27's exports to the UK of 30 per cent and a decline of 2 per cent of total EU-27 exports as a consequence of the introduction of MFN tariffs. The impact is, as expected, heterogeneous among the EU economies.

average tariff rates that the UK, the EU-27 and each Member State would face after Brexit if the WTO MFN regime were to prevail. Section 5 looks at the sectoral composition of tariffs and section 6 focuses on Italy. Section 7 presents some concluding remarks.

2. Trade links of the EU-27 members with the UK

A post-Brexit agreement on trade in goods may introduce tariff and non-tariff measures in the commercial relationships between the UK and the rest of Europe that could increase the costs of trade for both sides. A description of the direct trade links with the UK for the individual EU-27 countries is the first step for a full evaluation of the trade costs that each economy would face. The second step is a detailed analysis of the composition of countries' exports (and imports) to (and from) the UK by sector in that both tariff and non-tariff barriers in trade are strongly differentiated at the product level.

Since the focus of this analysis is the measurement of the average regulatory tariff rates and not the impact of duties on trade flows, only the direct trade links of each EU-27 Member States with the UK are taken into account. Although for some EU countries indirect trade with the UK, i.e. trade of intermediates with a third economy where these intermediates are used as inputs for the production of goods which are subsequently exported (imported) to (from) the UK, can be relevant, new tariff costs would be generated by Brexit only when a good crosses the British border, that is, referring to direct flows (on the Hungarian case, for example, see Halpern, 2016). However, some indications on the burden that a change in the trade regime with the UK could imply for intermediates' and components' flows will be derived by the analysis at the sector level: within the same industry the level of tariffs could be very different according to the characteristics (final or component) of the traded good (WTO, 2015).

Table 1 – EU-27 export and import of goods with the UK in 2015

(millions of euros)

COUNTRIES	Exports		Imports		Trade balance
	values	UK share on country's total %	values	UK share on country's total %	
Austria	4,343	3.2	2,446	1.7	1,897
Belgium	31,852	8.9	17,396	5.1	14,456
Bulgaria	587	2.6	482	1.8	105
Croatia	205	1.8	209	1.1	-4
Cyprus	120	7.2	451	8.9	-331
Czech republic	7,556	5.3	3,327	2.6	4,230
Denmark	5,428	6.3	3,485	4.5	1,943
Estonia	326	2.8	350	2.7	-24
Finland	2,776	5.1	1,763	3.2	1,013
France	32,142	7.1	21,928	4.2	10,214
Germany	89,271	7.5	40,318	4.3	48,953
Greece	1,098	4.2	1,252	2.9	-153
Hungary	3,593	4.0	1,579	1.9	2,014
Ireland	15,307	13.7	21,739	31.5	-6,432
Italy	22,484	5.5	10,575	2.9	11,909
Latvia	542	5.0	306	2.3	236
Lithuania	1,024	4.5	750	3.0	275
Luxembourg	742	4.8	246	1.2	496
Malta	148	6.4	391	7.5	-243
Netherlands	47,808	9.3	23,581	5.1	24,227
Poland	12,086	6.7	5,050	2.9	7,036
Portugal	3,359	6.7	1,900	3.1	1,459
Romania	2,380	4.4	1,565	2.5	815
Slovakia	3,739	5.5	1,039	1.6	2,700
Slovenia	545	1.9	351	1.3	194
Spain	18,532	7.3	13,507	4.8	5,024
Sweden	9,068	7.2	6,856	5.5	2,212
Total	**317,063**	**7.1**	**182,841**	**4.4**	**134,221**

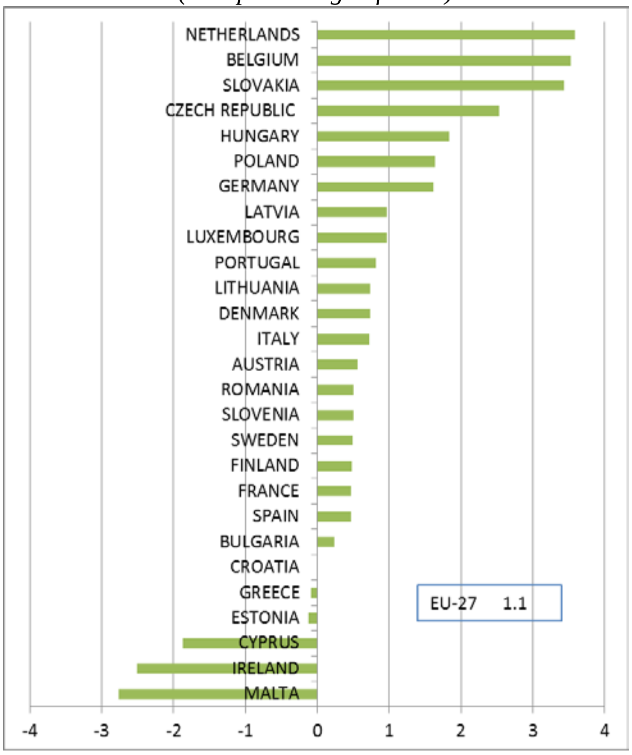
Source: calculations on Eurostat data.

As the UK tends to import manufactured goods and to export services, it is not a surprise that the majority of EU countries run large merchandise trade surpluses with the UK (Tab. 1).

In value terms the surplus is concentrated in few countries: Germany (49 billion of euros in 2015) followed by the Netherlands (24 billion) and Belgium (14 billion). For Italy and France the surplus is lower (12 and 10 billion, respectively). Evaluated as a percentage of GDP, the goods trade balances with the UK reveal that for a quite large number of Eastern countries the surplus exceeds 1 per cent of GDP: Slovakia, the Czech Republic, Hungary and Poland (Fig. 1). Only a limited number of European countries run a trade deficit with the UK, in particular, Ireland (6 billion and 2.5 per cent of GDP) and Malta.

Figure 1 – EU-27 trade balance in goods with the UK in 2015

(as a percentage of GDP)



Source: calculations on Eurostat data.

Figures 2 and 3 show, respectively, exports and imports towards and from the UK as a percentage of GDP for each EU-27 Member State, hence focusing on the importance of gross trade flows with the UK for the various economies.

Overall, some facts are worth highlighting.

First, whereas the UK is the destination of only 7.1 per cent of EU-27 exports of goods as a whole (Tab. 1), the EU-27 absorb about 44 per cent of British exports.

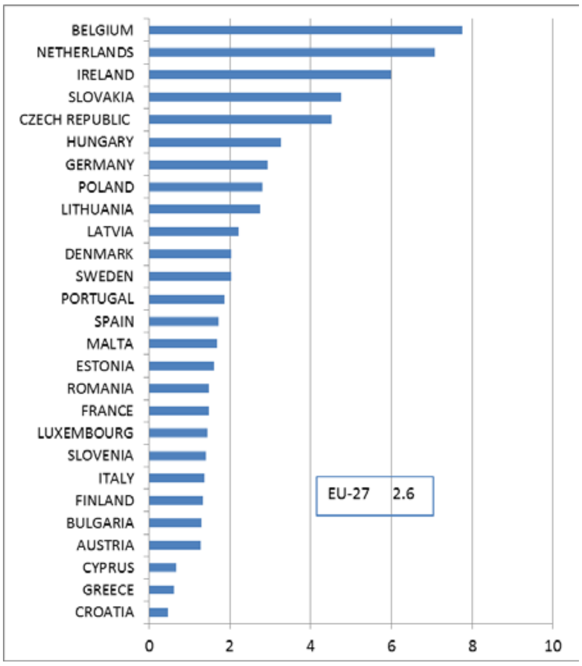
Second, there is great variability among the EU-27 countries regarding the relative importance of the British market. Belgium, Netherlands, Ireland, Germany and some Eastern European countries are the economies that are more exposed to British demand: in 2015 the value of their sales of goods to the UK was between 3 and 8 per cent of GDP. It is important to clarify that for Belgium and the Netherlands these very high rates are in part explained by the activity of ports[4] that constitute transit hubs for trade with the UK. Therefore, some of these countries' exports to the UK may be originated from elsewhere and some of their

[4] Zeebrugge and Antwerp in Belgium, and Rotterdam in the Netherlands.

imports from the UK may have headed to other markets. In the remaining majority of countries, the value of exports to UK in percentage of GDP stands between 1 and 2 per cent. This signals that the stakes in the negotiations are not homogeneous among countries and can therefore have an impact on the moulding of the EU position in the definition of the new commercial regime with the UK, to which each member would contribute equally.

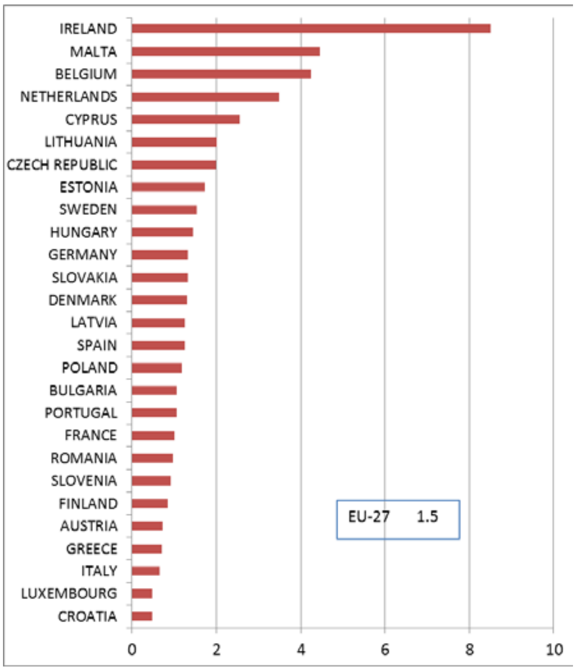
Third, with few exceptions, imports of goods from Britain are relatively less relevant than exports for almost all the main European economies. Ireland and – to a lower extent – Malta and Belgium are the countries in which goods imports from the UK account for the largest share of GDP (above 4 per cent); for the Netherlands and Cyprus the share is between 2 and 4 per cent, whereas in all the other countries it is below 2.

Figure 2 – EU-27 exports of goods to the UK in 2015
(as a percentage of GDP)



Source: calculations on Eurostat data

Figure 3 – EU-27 imports of goods from the UK in 2015
(as a percentage of GDP)



Source: calculations on Eurostat data

3. Possible scenarios for a new trade regime

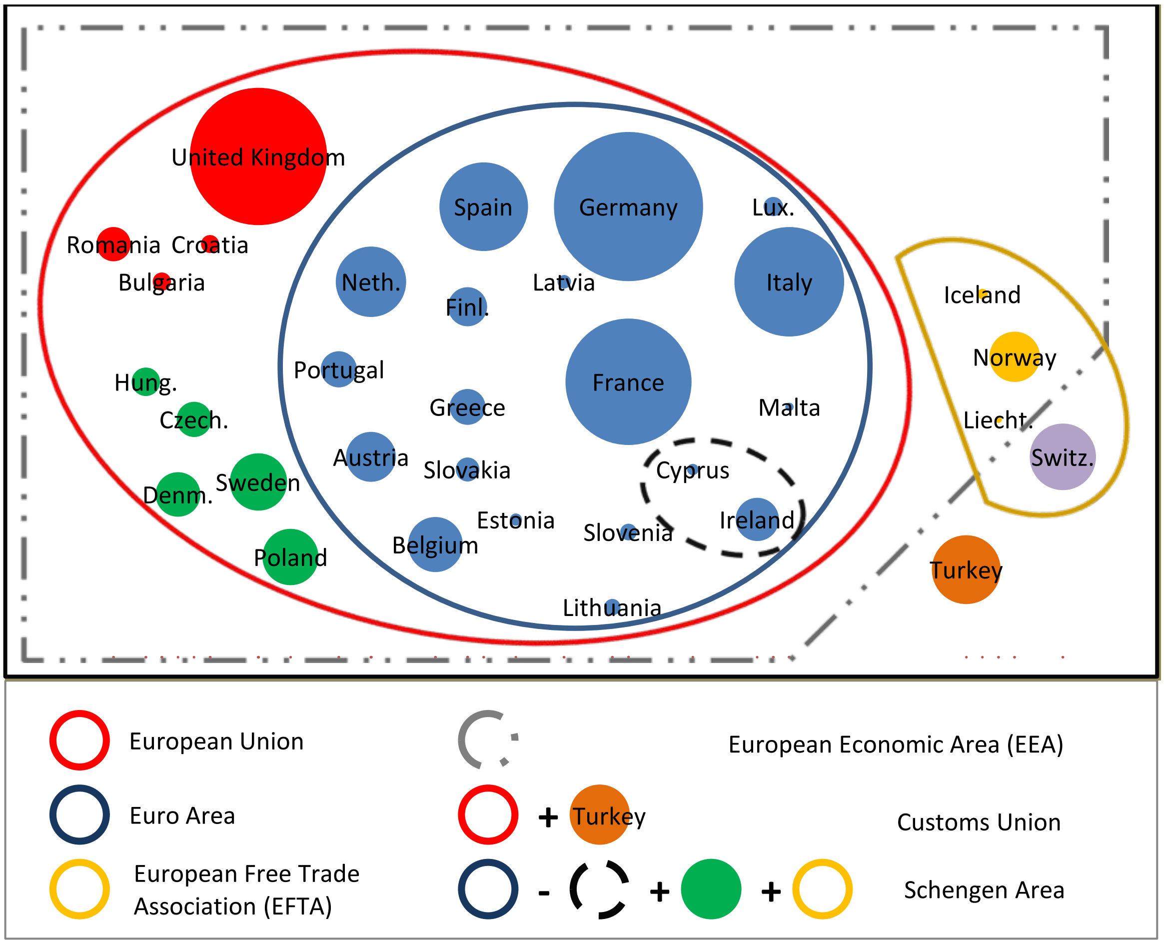
With the UK leaving the EU and in absence of any formal agreement, an extension of the *status quo* in the trade relationships between the EU-27 and the UK is not a feasible solution because it would imply a violation of the MFN principle.[5] Under the WTO agreements, countries cannot discriminate between their trading partners. If a country grants another country a special treatment (such as a lower customs duty rate for one of its products), it has to do the same for all other WTO members unless the two countries set up a free trade agreement that applies only to goods traded between themselves.[6]

[5] This principle is so important that it is the first article of the General Agreement on Tariffs and Trade (GATT), which governs trade in goods world-wide.

[6] In general, MFN means that every time a country lowers a trade barrier or opens up a market, it has to do so for the same goods or services coming from all its trading partners. Some exceptions are allowed. Besides the case of trade agreements discussed in the main text, a country can raise barriers against products that are considered to be traded unfairly from specific countries.

There are a few possible configurations for the new commercial regime between the EU and the UK but none of them are entirely satisfactory, given the economic and political needs of both sides. Figure 4 describes the different regimes that currently regulate the relationships among the EU countries and their main trading partners. These regimes could be considered as a starting point for any possible new arrangement between the EU and the UK.

Figure 4 –Economic Ties within Europe (1)



Source: Illustration based on EU, IMF and ECB data.
(1) The size of each country's circle represents the country's GDP in 2015.

The *European Union* represents the 28-country Single Market of free trade and shared regulation included in the red circle. The Single Market guarantees the free movement of goods, services, capital and people. The blue circle identifies the subset of the 19 countries in the *euro area*, which is a currency union. The *European Free Trade Association* (EFTA), delimited by the yellow line, is a free-trade zone characterized by a network of agreements that grant preferential access to markets outside the EU.[7] The dotted grey line represents the *European Economic Area* (EEA) that provides access to the Single Market in exchange for payments.[8] In the *Customs Union* goods circulate without duties but, unlike a free trade area,

[7] As of December 2016, the EFTA States have signed 27 Free Trade Agreements with 38 partners from Eastern and South-Eastern Europe, the Middle East, North and Southern Africa, Asia and the Americas.
[8] "All relevant Internal Market legislation is integrated into the EEA Agreement so that it applies throughout the whole of the EEA. The core of these rules relate to the free movement of goods, capital, services and persons. In addition, the EEA Agreement covers areas such as social policy, consumer protection, environment, company law and statistics. In order to ensure equal conditions of competition throughout the EEA, the EEA Agreement

members of the Customs Union impose a common external tariff on all goods entering the union. The *Schengen Area* is a 26-country passport-free travel agreement zone that does not include the UK. It also does not cover some EU Eastern economies (Romania, Croatia and Bulgaria) and two euro area countries (Cyprus and Ireland).[9]

Whatever the kind of agreement on trade that will be set up between the EU and the UK, it is quite clear that the UK will leave the Customs Union which includes the EU countries and Turkey. On the one hand, remaining in the Customs Union could imply many benefits for the UK, which would maintain the access to the Single Market and at the same time have the option to impose immigration restrictions. On the other hand, this solution would have very high costs in terms of policy independence. It would mean that the UK could not negotiate its own trade agreements and would have to accept whatever the EU agrees with third parties, without having the possibility of actively participating in these negotiations.[10] Moreover, the UK would be bound to the EU regulations on product standards.[11] Turkey is a clear example of a country that surrendered its trade-policy sovereignty to the EU when it entered the Customs Union in 1996. However, the possibility that the UK will adopt the Turkish model seems extremely remote.[12]

One of the major consequences of the decision of leaving the Customs Union would be the rise in administrative costs, in addition to the tariff costs that British goods would face when delivered to EU markets. These administrative costs derive from what are known as *rules of origin*: in the case the UK sets up a free trade agreement with the EU-27, the goods exported from the UK (and most of their input content) would have to be certified as being produced in the UK to be eligible for a duty-free treatment, otherwise the country could serve as a back door for products from areas or countries not covered by an FTA with the EU to enter the EU avoiding tariffs. The compliance with the requirements of the *rules of origin* implies additional costs (administrative and due to higher input costs) that have been estimated in tariff-equivalent terms in a range between 3 and 15 per cent, this latter being the highest level owing to rules involving technical requirements. It is quite a high margin given that MFN tariffs are themselves very low in most sectors (Cadot and de Melo, 2007).[13]

UK's exit from the Customs Union currently seems to be one of the few points on which there is a consensus view in the political and economic debate in the UK. However, a trade regime between the EU-27 and the UK with the latter outside the Customs Union can assume different configurations. So far, many authors have focused on four possible options for a trade deal (Baldwin, 2016). The first three options are based on the achievement of some kind of Free Trade Agreement, the fourth one on the application of the WTO rules.

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mirrors the competition and state aid rules of the EU Treaties. It also provides for participation in EU programs such as those for research and education" (http://www.efta.int/about-efta/european-free-trade-association).

[9] In the event of a serious threat to public policy or for internal security, a Schengen country may exceptionally and temporarily reintroduce border controls. In recent years there have been many episodes of temporary reintroduction of these controls by Member States due to different reasons.

[10] In her speech of 17 January 2017 the British Prime Minister, Theresa May, stated that the British position aims at gaining freedom "to negotiate its own trade agreements". This means that, although her wish to enjoy tariff-free trade with Europe and cross-border trade that is as frictionless as possible, the UK's position is to not be part of the Common Commercial Policy and not be bound by the Common External Tariff implied by the Customs Union.

[11] Furthermore, Custom Union does not include any provision for services, implying that the UK would be entirely excluded from the EU Single Market for services.

[12] Although bilateral trade with the EU has largely benefited from Turkish integration in the Custom Union, there is an ongoing political debate on the EU-Turkey bilateral trade relations. See for example http://trade.ec.europa.eu/consultations/index.cfm?consul_id=198 .

[13] These rules would be invasive and expensive, especially in industries such as auto and aerospace.

1. The first option is some version of the EEA, the so-called "*Norway model*". It would imply an almost full participation of the UK in the Single Market and the consequent acceptance of free movement of goods, services, capital, and people.[14] A Norwegian-style EEA agreement would impact heavily on UK's services exports and, in particular, on financial services. The UK banking and financial sector would retain its so-called *passporting rights* and therefore all EU-27 members would automatically have to grant full access to banks which are regulated in the UK (either UK-owned or UK subsidiaries of overseas banks).[15] This regime would also guarantee the recognition of UK product standards as valid for exports to all EU markets (this principle is called 'mutual recognition'), thus preserving the European supply chains that are so relevant for British car manufacturers.[16] However, this option would still involve some barriers to trade because, being outside the Customs Union, the UK would be subject to the *rules of origin* as concerns its exports. In addition to that, it would have to contribute to the EU budget[17] and adopt EU standards and regulation without any influence over them. Finally, the UK would be unable to impose immigration restrictions. For all these reasons the "Norway option", despite presenting many economic benefits, could be a politically damaging solution for the UK.

2. The second model, the "*Swiss option*", implies a set of agreements which would regulate the access to the single market in specific sectors with the UK having to adopt EU regulations in the sectors covered. Being out of the Customs Union, also in this case UK exports would be subject to the *rules of origin*. This regime would not preserve the access for British banks to the EU-27 markets and it would introduce some barriers to free movements of people to and from the UK. However, in the guidelines for Brexit negotiations, the European Council has recently reaffirmed that it would not allow a "cherry picking" by the UK of Single Market measures.

3. A third possibility is a "Comprehensive Free Trade Agreement" (CFTA) that the UK Prime Minister clearly mentioned in her speech of 17 January 2017.[18] However, this kind of "mixed agreement" covering - in addition to tariffs - different issues such as services, investment and so on, would require a very complex and long procedure that could last for many years.

4. The default option is the "*WTO model*". If the UK is no longer part of the Single Market and in absence of a specific agreement, trade between the EU and the UK would revert to a WTO MFN-basis. The adoption of this model would entail no need to agree on common standards and regulations but would raise tariff and non-tariff barriers faced by both UK and EU exporters. The rise in barriers would also concern services exports, with the loss of *passporting rights* for UK banks. Reverting to WTO membership would represent indeed a fallback option for the UK to set its trade relationships with the EU and the rest of the world since it would be somehow inconsistent with UK's traditionally liberal approach to trade.

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[14] The Norway option does not include free trade in food products and does not require Norway to adopt EU trade policies with respect to non-EU nations.

[15] The latter banks would thus retain the right to establish branches or carry out cross-border activity in the rest of the EU and other EEA states. Moreover, there is a provision in the EU's 'Markets in Financial Instruments Directive' that allows non-EU banks to attain access to the single market. It is possible, maybe even likely, that the UK would win this status called "equivalence", but it would convert what is now a right into a privilege that could be granted or withdrawn at the discretion of the relevant EU decision-making body.

[16] On this specific aspect, see Amador, Cappariello and Stehrer (2015).

[17] In this regime UK contributions to the EU would anyhow decrease, since UK agriculture and UK regions would no longer receive EU funds.

[18] The EU has recently concluded two agreements under the broad heading of CFTA: the "Comprehensive Economic and Trade Agreement" (CETA) with Canada and the "Deep and Comprehensive Free Trade Area" (DCFTA) with Ukraine.

4. Measuring tariff trade barriers under WTO terms

In the event that a new FTA is not reached as part of the Brexit negotiations, UK trade with the EU (and with almost all the countries in the world) would be governed by the WTO rules. The UK's shared competence with the EU over the WTO rights and obligations would cease and the UK would need to regularize its participation in the WTO as an individual member. As WTO members, the UK and the EU would impose mutual tariffs, which would raise the costs for exporters on both sides.

UK goods exported to EU-27 countries would face the external tariffs applied by the EU to the WTO countries where there is no preferential trade agreement, i.e. the EU's MFN tariffs. In turn, the UK could impose its own MFN rates on imports: by losing preferential access to the Single Market, the country would no longer be bound by the EU's common external tariff and would in fact be free to set its own tariffs on imports. In this exercise the latter tariffs are however assumed to be equal to the EU's current MFN rates because it is very likely that, at least in the initial phase, the UK will inherit the EU's tariff schedule and will apply it to its imports from the EU.[19]

In this analysis, the average tariffs that would affect the exporters of each Member State of the EU to the UK (and vice versa) are estimated, for most products, by using information from the WTO-IDB database on the applied MFN tariffs. This data source provides *ad valorem* tariffs (i.e. charged as a percentage of the value of the good imported) for over 5,000 product lines (defined according to the HS classification). However, a number of goods, especially many agricultural and food products, are charged per quantity or by weight allowing minimum and maximum ranges of the tariffs. For these products our estimates use *the estimated ad valorem equivalent tariffs* drawn from the International Trade Centre Market Access Map (ITC MAP) based on the weight-based tariffs taken at the minimum rate. Finally, in the case the WTO arrangements envisage *tariff rate quotas,* the *inside-quota tariff rates* (IQTR) from the same data source, when available, is adopted in the analysis. Given this methodological approach, our estimates of tariffs, especially for an industry like 'food and live animals', may be considered as a lower bound of the tariffs that could be potentially applied.

We compute average tariffs using as weights the import values at the product level drawn from the United Nations ComTrade database for the year 2015, which contains annual bilateral trade flows at the HS-6 digit classification.

Table 2 lists the average bilateral tariffs that, according to our estimates, would be applied between the EU-27 as a whole and the UK on traded goods, both overall and at a broad sector level (SITC Rev.4 classification).[20] Since the assumption is that the duty schedules used by both the EU and the UK are identical to the EU's current MFN tariffs, the differences between the two simply reflect a different product composition of their trade.

The average duty imposed by the UK on the imports of goods from the EU-27 would be 5.2 per cent. This estimate is in line with the average tariff applied by the EU on imports from the WTO countries in 2014, as estimated and reported in WTO-ITC UNCTAD (2015). Other estimates provided by the literature (Protts, 2016) turn out to be only marginally higher (5.8 per cent).

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[19] Looking forward, it is likely that the UK would negotiate a new specific tariff schedule since the current EU schedule has been designed in order to protect the 28 economies as a whole and naturally not to defend the interest of a single economy, such as the UK.

[20] The HS 6-digit industries are aggregated into SITC 2-digit divisions by using a product concordance between HS and SITC Rev.4.

Table 2 – Estimated bilateral tariffs between the UK and the EU-27 by sector

(as a percentage of imports)

SITC Rev.4 Product		Bilateral tariff applied: Simple average of MFN (2015)		Imports: Sector share	
		on EU27 goods	on UK goods	UK from EU27	EU27 from UK
0	Food and live animals	15	12	10.4	6.6
1	Beverages and tobacco	8.1	5.4	1.9	1.8
2	Crude materials, inedible, except fuels	1.9	0.5	2.1	1.9
3	Mineral fuels, lubricants and related materials	1.8	1.1	3.4	12.8
4	Animal and vegetable oils, fats and waxes	3.9	3.6	0.4	0.3
5	Chemicals and related products, n.e.s.	2.4	2.7	16.3	18.0
6	Manufactured goods classified chiefly by material	2.8	2.6	10.8	11.0
7 net of 7.8 and 7.9	Machinery excluding road vehicles and other transport equipment	2	1.9	20.8	19.0
7.8	Road vehicles	9.1	9	18.9	12.3
7.9	Other transport equipment	2.6	2.5	1.8	3.8
8 net of 8.4 and 8.5	Miscellaneous manufactured articles excluding clothing and footwear	2.2	2.4	9.2	8.7
8.4	Articles of apparel and clothing accessories	11	11	2.1	1.6
8.5	Footwear	10	11	0.8	0.5
9	Commodities and transactions not classified elsewhere in the SITC	0	0	1.1	1.7
	Total	**5.2**	**3.9**	**100.0**	**100.0**

Source: Calculations on WTO-IDB database and ITC Market Access Map for tariffs and Unctad ComTrade for trade.

The EU's current MFN rates display a considerable variation across products ranging from zero to 75 per cent. Even across industries the variability in the estimated level of tariffs is quite high. If we consider a sectoral disaggregation at the SITC 2-digit level, it turns out that about 40 per cent of the EU goods delivered to the UK market would face tariffs exceeding 5 per cent (see Tab. 1.A in the Appendix). Almost half of these high tariff goods are 'road vehicles', which would be levied by a tariff of 9.1 per cent on average.

If we consider 5 per cent as the threshold below which nominal tariffs are not expected to have a significant impact on trade flows,[21] it is clear that the EU MFN tariffs substantially protect four sectors: 'food and live animals', 'beverage and tobacco', 'motor vehicles' and 'clothing and footwear'. In absolute terms, EU-27 exports to the UK would potentially face tariffs amounting to about 16 billion euros (Tab. 3). The highest burden would be on German exporters (around 4.5 billion), whereas for Dutch and French exporters the amount would be 1.8 and 1.7 billion, respectively.

Turning to UK exports to the EU, on the basis of the sectoral composition of such flows we estimate an average tariff of 3.9 per cent; in value terms, it would amount to about 6.5 billion euros. In this case just about one-quarter of UK exports would be levied by duties exceeding 5 per cent, half of which referring to 'road vehicles'.

It is apparent that the application of the EU's MFN tariff schedule would imply higher costs for European, than for UK, exporters. Beside the different sectoral specialisation of exports, this difference mostly reflects (for about three quarters) the current merchandise trade surplus of the EU with respect to the UK. In particular, since the transition towards a WTO regime would bring about substantial trade costs for producers in the 'road vehicles' industry, characterized by a relatively high level of duties, the change of commercial regime would potentially affect EU exporters because almost one fifth of the overall value of goods they deliver to the UK is represented by vehicles. In other industries, notably machinery and chemicals that represent respectively 20 and 16 per cent of British imports from the UE-27, the level of tariffs would instead be rather negligible.

21 WTO ITC UNCTAD, World Tariff Profiles, 2015.

Table 3 – Estimated tariffs on UK imports of goods from EU-27 countries (1)

(millions of euros and percentages)

COUNTRIES	EU27 goods			in % of value added in manufacturing
	value of tariffs	value of imports	average tariff	
Austria	162	4,212	3.8	0.3
Belgium	1,542	27,959	5.5	3.1
Bulgaria	24	507	4.8	0.5
Croatia	8	196	4.2	0.2
Cyprus	29	215	13.0	3.5
Czech Republic	283	6,609	4.3	0.8
Denmark	298	4,736	6.3	1.0
Estonia	3	257	1.3	0.1
Finland	50	2,790	1.8	0.2
France	1,710	34,317	5.0	0.9
Germany	4,484	84,187	5.3	0.9
Greece	80	967	8.3	0.8
Hungary	161	3,441	4.7	0.8
Ireland	1,415	17,075	8.3	3.8
Italy	1,117	22,256	5.0	0.5
Latvia	10	657	1.5	0.5
Lithuania	54	1,069	5.1	1.6
Luxembourg	18	667	2.7	0.7
Malta	8	250	3.3	-
Netherlands	1,787	42,315	4.2	3.0
Poland	677	11,114	6.1	1.2
Portugal	212	3,124	6.8	1.2
Romania	128	2,132	6.0	0.8
Slovakia	243	2,755	8.8	2.1
Slovenia	19	446	4.3	0.3
Spain	1,236	19,146	6.5	1.3
Sweden	262	9,311	2.8	0.5
EU27	**16,112**	**309,183**	**5.2**	**1.1**

Source: Calculations on WTO-IDB database and ITC Market Access Map for tariffs and Unctad ComTrade for (annual) data on the value of imports from EU countries.

(1) UK imports from the EU-27 are drawn from the ComTrade database. These values are in dollars and have been converted into euros by using an annual average exchange rate of 1 euro = 1.1095 USD dollars. This mainly explains the differences with the values of the EU-27 exports to the UK reported in Table 1 and based on the Eurostat dataset in euros.

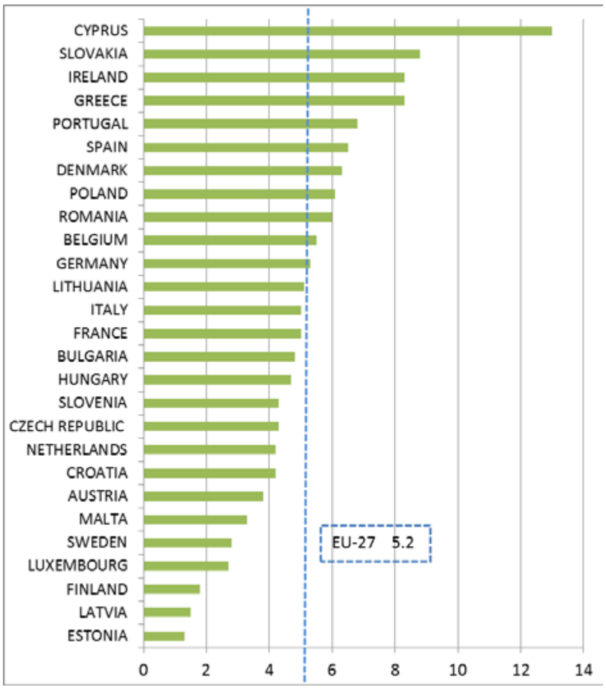
In percentage of the total value added of the manufacturing sector (the last column of Table 3), the relative burden of new tariffs on the goods imported from the UK would be particularly high, between 3 and 4 per cent, for smaller EU states that have geographical proximity and/or historical ties with the UK such as Belgium, Cyprus, Ireland and the Netherlands. This confirms that the stakes in the negotiations with the UK are not homogeneous among European countries and may have an impact on the definition of the EU position.

Figure 5 shows, in a descending order, the average tariff that would be imposed on goods imported by the UK from each EU-27 Member State. The great variability among countries reflects the differences in the sectoral composition of trade flows.

Half of the countries would display an average tariff that is higher than 5 per cent of the total value of goods exported to the UK. For a subset - Germany, Spain, Belgium and Slovakia - this is due to a specialisation in the ‘road vehicles’ industry. In other cases, such as Portugal and Romania, the high average tariff is mostly explained by the relatively high incidence of 'clothing industry'. The relevant incidence of some specific products of the 'food and live animal' industry explains instead the high tariffs that would weigh on goods imported from Ireland and Denmark ('meat'), Greece ('vegetables and fruit') and Cyprus ('dairy products').

Figure 5 – Average tariffs on UK imports of goods from EU-27 countries(1)

(as a percentage of total UK imports from each country)



Source: Calculations on WTO-IDB database and ITC Market Access Map for tariffs and Unctad ComTrade for trade. (1) The dotted line is the EU-27 average.

For Spain, in addition to the specialisation of exports to the UK in the 'road vehicles' industry, a relevant contribution to the relatively high level of tariffs derives from the high incidence of agricultural products (more specifically of 'vegetables and fruits'). The estimated average tariffs that would apply on French and Italian goods exported to the UK market would be just slightly below the EU-27 average.

5. A glance at sectors

As seen in Table 2 the costs of the introduction of tariffs would be unevenly distributed across sectors. The goods that would be affected by duties can be grouped into three categories: (1) "high-tariff agricultural products" that include 'agricultural products' and 'food and beverages', which have their own WTO rules; (2) "high-tariff non-agricultural products", which face tariff costs in excess of 5 per cent of the value of imports (essentially 'road vehicles' and 'apparel, clothing and footwear'); (3) "mid and low-tariff non-agricultural products", where the tariff burden would be below 5 per cent of the value of imports.

Looking at the differences across the industries characterised by a high level of tariffs in more detail can shed light on the potential pressures for the imminent negotiations.

The European car industry would incur the highest costs in absolute terms (Tab. 4): EU road vehicles producers would have to deal with the impact of tariffs worth 5.3 billion euros when exporting to the UK. Road vehicles exported by Germany alone would be levied by 2.5 billion, almost half of the overall tariff imposed on these products across Europe.

Table 4 – Tariffs on UK imports of goods from the EU-27 by sector(1)

(millions of euros and percentages)

SITC Rev.4 Product		EU27 goods		
		value of tariffs	value of imports	average tariff %
0.0	Food and live animals	4,721	32,090	14.7
1.0	Beverages and tobacco	469	5,754	8.1
2.0	Crude materials, inedible, except fuels	123	6,606	1.9
3.0	Mineral fuels, lubricants and related materials	196	10,613	1.8
4.0	Animal and vegetable oils, fats and waxes	47	1,202	3.9
5.0	Chemicals and related products, n.e.s.	1,203	50,507	2.4
6.0	Manufactured goods classified chiefly by material	944	33,415	2.8
7 net of 7.8 and 7.9	Machinery excluding road vehicles and other transport equipment	1,316	64,426	2.0
7.8	Road vehicles	5,344	58,408	9.1
7.9	Other transport equipment	146	5,635	2.6
8 net of 8.4 and 8.5	Miscellaneous manufactured articles excluding clothing and footwear	636	28,480	2.2
8.4	Articles of apparel and clothing accessories	729	6,467	11.3
8.5	Footwear	239	2,326	10.3
9.0	Commodities and transactions not classified elsewhere in the SITC	-	3,254	-
	Total	**16,113**	**309,183**	**5.2**

Source: Calculations on WTO-IDB database and ITC Market Access Map for tariffs and Unctad ComTrade for (annual) data on the value of imports from EU countries.
(1) The values, in USD, have been converted in euros by using the average exchange rate in 2015 of 1 euro = 1.1095 USD.

It is noteworthy that there is some variability in the average tariff that road vehicles exporters in the various countries would have to face (Fig. 6c); this heterogeneity reflects the fact that duties imposed on the final product, that is, ‘cars and motor vehicles’ are much higher (10 per cent) than those on the ‘intermediate parts of vehicles’ (4 per cent on average). Therefore, countries delivering components to the UK automobile industry or in other terms, using the global value chain jargon, countries participating in the intermediate stages of the UK production of vehicles (such as the Czech Republic and Poland) would record a lower incidence of duties in the sector. Nevertheless, it is important to highlight that the exit from the Customs Union would imply - especially in this sector - a further increase in non-tariff costs to trade which would hurt the European automotive value chains.

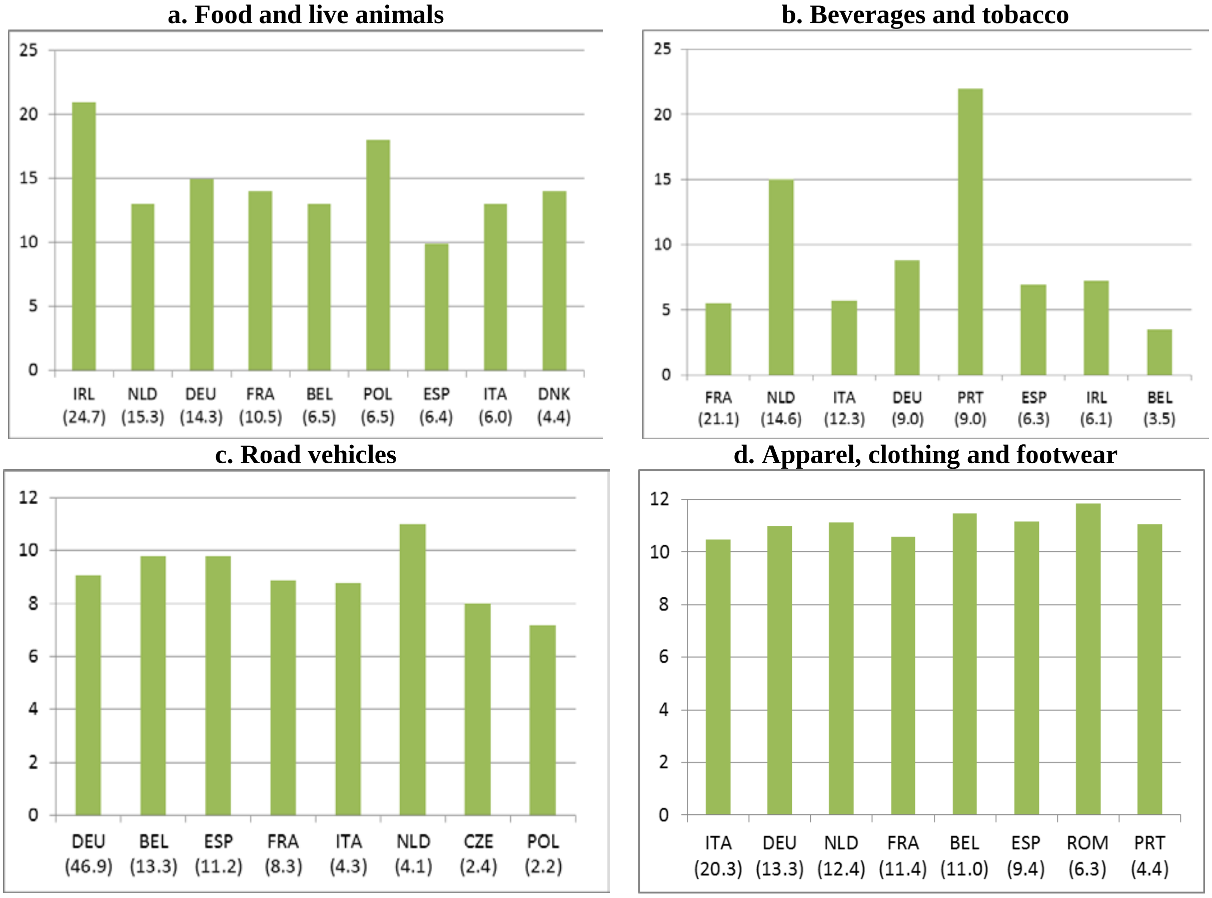
Another sector where EU exports would sustain very high costs from the introduction of tariffs is the ‘food and live animals’ industry, since meat, dairy and other agricultural products are characterised by the highest percentage duties (see Table A in the appendix). Agricultural products and food represent about 10 per cent of EU-27 exports to the UK: the largest burden in terms of the overall tariff paid by European exporters would fall on Ireland, the Netherlands and Germany (Fig. 6a).

In the ‘beverage and tobacco’ industry that accounts for almost 2 per cent of EU-27 exports to the UK, one third of the overall tariff would be faced by France and Italy, whose sales of wine (including “sparkling wine”) to the UK represent three quarters of UK imports in the category of ‘beverages’ from the EU (Fig. 6b). The average tariff levied on wine is almost 7 per cent.

Among the “high-tariff non-agricultural products”, ‘apparel and clothing’ and ‘footwear’ represent 3 per cent of EU exports to the UK. In these industries Italian exporters would bear the highest share (20.3 per cent) of the duties imposed on the EU-27 as a whole (Fig. 6d).

Fig. 6 – Average tariffs by sector and country on UK imports from the EU-27: high-tariff sectors

(in percentage on UK imports by product and country)



Source: Calculations on IDB-WTO database and ITC Market Access Map for tariffs and Unctad ComTrade for trade.
Notes: In brackets the country's share on duties imposed on goods imported from the EU-27 in that sector.

6. A focus on Italy

Italy's commercial relations with the UK are less intense than those of other main euro-area countries (see Tab. 1). Sales to the UK account for 5.5 per cent of total Italian exports of goods whereas imports represent only 2.9 per cent of total Italian purchases from abroad. Italy's merchandise trade surplus with the UK in 2015 was equal to 11.9 billions of euros.

According to our estimates, Italian goods exported to the UK market would face an average tariff rate of 5 per cent (Tab. 5), slightly lower than the average estimated for the EU-27 as a whole. The 'road vehicles' industry accounts for 11.6 per cent of Italian exports to the UK, as compared to 32.6 in Germany, 31.9 in Spain and 25.9 in Belgium. The relatively weaker specialisation of exports in this high tariff sector is compensated by a higher incidence of traditional sectors, such as 'apparel and clothing' and 'footwear', which are also characterised by a high level of tariffs. For the exports of machinery products, which represent more than 20 per cent of Italian exports to the UK, the estimated level of tariffs is instead quite low.

Overall, the cost implied by the new tariffs would amount to 0.5 per cent of Italy's manufacturing value added, a figure remarkably lower than that for the main European manufacturing countries (Germany, France and especially Spain).

Table 5 – Estimated average tariffs on UK imports of goods from Italy by sector
(as a percentage of total UK imports from Italy)

SITC Rev. 4 Product		Average MFN tariff applied	Sector share
0	Food and live animals	13.0	9.7
1	Beverages and tobacco	5.7	4.6
2	Crude materials, inedible, except fuels	1.9	1.0
3	Mineral fuels, lubricants and related materials	2.3	0.3
4	Animal and vegetable oils, fats and w axes	0.5	0.4
5	Chemicals and related products, n.e.s.	2.3	12.7
6	Manufactured goods classified chiefly by material	3.2	14.5
7 net of 7.8 and 7.9	Machinery excluding road vehicles and other transport equipment	2.1	20.8
7.8	Road vehicles	8.8	11.6
7.9	Other transport equipment	2.7	1.6
8 net of 8.4 and 8.5	Miscellaneous manufactured articles excluding clothing and footw ear	2.4	14.5
8.4	Articles of apparel and clothing accessories	11.0	5.6
8.5	Footw ear	9.1	2.6
9	Commodities and transactions not classified elsew here in the SITC	0.0	0.2
	Total	**5.0**	**100.0**

Source: Elaborations on WTO-IDB database and ITC Market Access Map for tariffs and Unctad ComTrade for trade.

7. Conclusions

This study focuses on the new potential regime in goods' trade between the EU-27 and the UK and, in particular, on the case in which a new FTA is not reached and trade is conducted under WTO MFN terms. Under this scenario the UK would introduce tariffs on its imports from each of the EU-27 members, whose total amount depends on the intensity of commercial relationships of each EU-27 country with the UK and on the sectoral composition of its exports.

In this assessment the application of the EU's MFN tariff schedule would imply a higher amount of duties on European, than on UK, exporters. This result mostly reflects the current EU-27 surplus in goods trade with respect to the UK and, to a lower extent, it depends on the different trade specialisation of the partners involved. Given the sectoral composition of the respective trade flows, the average duty levied by the UK on imports from the EU-27 would be 5.2 per cent of their value. On the other hand, it would be 3.9 per cent for UK exports to the EU-27.

This analysis also highlights that the variation of tariffs across products is large and that the transition towards a WTO MFN regime would bring about substantial costs on trade, in particular for car producers. Considering that almost one-fifth of the value of goods delivered by the EU-27 to the UK is represented by vehicles, the new regime could therefore significantly affect European export flows. The final magnitude of the impact would depend on the pass-through of tariffs on prices and on the elasticity of imports to prices, which are not considered in this assessment.

Moreover, the different sectoral composition of exports would determine a large heterogeneity in tariffs across EU-27 members. Half of the countries would be characterised by an average tariff that is higher than 5 per cent of the value of goods exported to the UK. For a specific subset of economies – Germany, Spain, Belgium and Slovakia – this is due to a specialisation in the 'road vehicles' industry. In other cases, such as Portugal and Romania, the high average tariff is mostly explained by the relatively large incidence of 'clothing industry'. The relevant share of some specific products of the 'food and live animal' industry instead explains the high tariffs that would weigh on goods imported from Ireland, Denmark, Greece and Cyprus.

Italian goods exported to the UK market would face an average tariff rate that is broadly in line with that estimated for the UE-27 as a whole. For the exports of machinery products, which represent more than 20 per cent of Italian exports to the UK, the potential level of tariffs is in fact quite low.

In light of this evidence, it is quite clear that the stakes in the negotiations on a new goods trade regime with the UK are not homogeneous among EU countries and may have an impact on the definition of the EU's overall position, to which each Member State contributes on the same level.

Appendix

Table 1.A – Average MFN tariffs applied by UK on imports from EU-27 by SITC 2-digit level

(percentages)

SITC Rev.4 Product		Bilateral average MFN tariff	Sector share
0	Live animals other than animals of division 03	0.0	0.2
1	Meat and meat preparations	22.0	2.0
2	Dairy products and birdsÆ eggs	26.0	1.2
3	Fish	13.0	0.4
4	Cereals and cereal preparations	5.4	1.1
5	Vegetables and fruit	11.0	2.6
6	Sugars, sugar preparations and honey	7.0	0.3
7	Coffee, tea, cocoa, spices, and manufactures thereof	24.0	0.9
8	Feeding stuff for animals (not including unmilled cereals)	2.7	0.5
9	Miscellaneous edible products and preparations	10.0	1.1
11	Beverages	5.5	1.7
12	Tobacco and tobacco manufactures	39.0	0.1
21	Hides, skins and furskins, raw	0.0	0.0
23	Crude rubber (including synthetic and reclaimed)	0.1	0.1
24	Cork and wood	0.0	0.6
25	Pulp and waste paper	0.0	0.2
26	Textile fibres (other than wool tops and other combed wool)	3.2	0.1
27	Crude fertilizers, not in Division 56, and crude minerals	0.1	0.1
28	Metalliferous ores and metal scrap	0.1	0.5
29	Crude animal and vegetable materials, n.e.s.	6.6	0.6
32	Coal, coke and briquettes	0.0	0.1
33	Petroleum, petroleum products and related materials	2.4	2.7
34	Gas, natural and manufactured	0.0	0.3
35	Electric current	0.0	0.4
41	Animal oils and fats	1.2	0.1
42	Fixed vegetable fats and oils, crude, refined or fractionated	4.7	0.3
43	Animal or vegetable fats and oils, processed waxes	7.4	0.0
51	Organic chemicals	5.1	1.8
52	Inorganic chemicals	3.9	0.4
53	Dyeing, tanning and colouring materials	5.7	0.5
54	Medicinal and pharmaceutical products	0.0	7.6
55	Essential oils and resinoids and perfume materials	2.0	1.8
56	Fertilizers (other than those of group 272)	5.8	0.2
57	Plastics in primary forms	5.1	1.7
58	Plastics in non-primary forms	6.1	1.0
59	Chemical materials and products, n.e.s.	4.2	1.3

(1/2)

SITC Rev.4 Product		Bilateral average MFN tariff	Sector share
61	Leather, leather manufactures, n.e.s., and dressed furskins	5.2	0.1
62	Rubber manufactures, n.e.s.	3.7	0.8
63	Cork and wood manufactures (excluding furniture)	4.3	0.5
64	Paper, paperboard and related articles	0.3	2.0
65	Textile yarn, fabrics, made-up articles, n.e.s.	7.0	1.0
66	Non-metallic mineral manufactures, n.e.s.	3.3	1.2
67	Iron and steel	0.3	1.6
68	Non-ferrous metals	4.4	1.7
69	Manufactures of metals, n.e.s.	2.8	1.9
71	Power-generating machinery and equipment	3.1	3.3
72	Machinery specialized for particular industries	0.9	1.8
73	Metalworking machinery	2.4	0.3
74	General industrial machinery and equipment and machine parts	2.3	4.0
75	Office machines and automatic data-processing machines	0.2	3.1
76	Telecommunications and recording and reproducing equipment	3.0	4.0
77	Electrical machinery and appliances and electrical parts	2.0	4.3
78	Road vehicles (including air-cushion vehicles)	9.1	18.9
79	Other transport equipment	2.6	1.8
81	Prefabricated buildings sanitary, plumbing, heating, lighting	3.4	0.6
82	Furniture and parts	1.5	1.2
83	Travel goods, handbags and similar containers	4.4	0.4
84	Articles of apparel and clothing accessories	11.0	2.1
85	Footwear	10.0	0.8
87	Professional, scientific and controlling instruments , n.e.s.	1.2	2.0
88	Photographic apparatus, optical goods, watches and clocks	2.8	0.7
89	Miscellaneous manufactured articles, n.e.s.	2.5	4.4
96	Coin (other than gold coin), not being legal tender	0.0	0.0
97	Gold, non-monetary (excluding gold ores and concentrates)	0.0	1.0
	Total	**5.1**	**100.0**

(2/2)

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