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Trade costs in customs unions. Differences with the Single Market and a free trade agreement

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1. Main features of customs unions

A customs union (CU) is a type of trade agreement where its members agree not to impose tariffs or quotas on trade in goods[1] among themselves and establish a common set of tariffs on imports from third countries. This usually implies a reduction of trade costs but still some trade barriers are in place (see table 1), which depend on the specific clauses of each customs union. For instance, in the case of the EU-Turkey customs union, manufactured goods are covered but basic agriculture products are excluded (partial customs union). There is a need of customs checks for compliance with EU norms and regulations (rules of origin and other) of products excluded from the agreement. These frictions imply trade costs and are considered as non-tariff barriers (NTBs). For products/sectors covered by the agreement there is no need of rules of origin (ROO), but verifications at customs[2] are still required since the alignment of Turkish technical regulations with the EU *acquis* is at an advanced stage but is not complete.

Like the EU-Turkey agreement, most customs union agreements ("ordinary CU") generally include some kind of regulatory cooperation or mutual recognition of rules to achieve trade to be as frictionless as possible. However, as long as regulatory alignment is not complete they would not serve the purpose of avoiding a hard land border between Ireland and North Ireland. To solve the issue of a hard border in the Isle of Ireland a full customs union (no exclusion of goods) would be required, as well as harmonization and high regulatory cooperation to avoid the need of checks and verifications, thus making NTBs almost negligible. We denominate this latest model "CU with full regulatory alignment".

Any CU agreement limits the possibility of making an independent international trade policy, as far as goods covered by the CU agreement are concerned. But customs union members can enter into trade agreements with same third countries regarding products or rules not included in the CU clauses (i.e. services, investments) or with other third countries with which the CU has no trade agreement signed up.

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[1] Services are not usually covered by customs union agreements.
[2] Verification of transport certificates is required in the EU-Turkey customs agreement, since trade services are not covered by it.

2. Comparison of trade costs in customs unions with respect to the EU Single Market and a free trade agreement

When compared to the **EU Single Market**, an ordinary CU union implies higher trade costs because of NTBs linked to possible differences in norms and the process of verifications at the border (Table 1). A CU with full regulatory alignment, on the contrary, is expected to lead to a much lower increase in trade costs among members of the CU by making NTBs almost negligible.

In both models, trade costs are reduced within CU members as compared to a **free trade agreement (FTA)**[3]. There are two sources for this decrease: a) there is no need to apply rules of origin to the goods imported from other CU member countries (a common external tariff to products from third countries has already been applied; b) NTBs in a customs union are usually lower than in a FTA. The relative cost savings in an ordinary CU with respect to a FTA are mainly given by the trade costs implicit in the compliance with rules of origin. In addition, the higher the regulatory alignment within the CU the larger are cost savings relative to a FTA. In a CU with full alignment, costs savings are given by the sum of rules of origin and all the NTBs usually present in a free trade agreement.

A range of the potential costs savings in a CU with full alignment is shown in Table 2, where several estimates of ad-valorem equivalent NTBs are presented. These are assumed to be due to customs procedures, rules of origin declarations and checks and verifications of norms and product standards. The costs savings due to the lack of a rules of origin declaration requirement are also significant since rules of origin may reduce trade up to 70%, under worst case assumptions, and a minimum of 10%, in the best case[4]. The specific costs due to the waiting time in border controls have been estimated to be about 10% in the case of trade between Ireland and the UK[5].

Rules of origin have other important economic implications. In those sectors (like the automotive and chemicals industries) which are very much inter-linked in the European value-chains and that must cross border several times, the increased trade costs of any FTA with respect to a CU may become fairly relevant and affect the competitiveness of these industries. Even more significant might be the increase in the waiting time at border controls, which may imply serious disruptions in "just-in-time" supply chains that are so common nowadays. More fundamentally, rules of origin are often designed in a very restrictive way[6] (beyond the levels that would be justified to prevent trade deflection) and may be used as a protectionist tool for certain sectors or products. Another undesirable consequence of rules of origin is that complex international supply chains tend to be constrained or distorted by firms' attempt to avoid or reduce the costs implied by their presence.

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[3] In order to benefit from the preferential (reduced) tariff rate offered by a FTA, an exporter from a member country must prove that the product it is selling has sufficiently work done in that country when considering the country origin of all the components (thus avoiding trade deflection). These are known as "preferential rules of origin".

[4] See Augier et al. (2005).

[5] See Byrne and Rice (2018).

[6] As several studies have shown: Augier et al. (2005), Cadot and de Melo (2008).

The administrative costs arising from the rules of origin certificates may always be avoided by paying the non-preferential tariffs. In fact, many exporters decide to use these tariffs instead of the preferential tariffs of an agreement to avoid costs associated with rules of origin. However, the most common way to mitigate costs arising from rules of origin declarations and disruptions in supply chains is what is called "accumulation" provisions, which allow inputs produced in other FTA members to be considered as local content. In the European Economic Area (EEA) rules for "diagonal accumulation" of origin are admitted, which are more advantageous for exporters than those of the EU-Korea and EU-Canada FTAs.

Table 1. Differential features of a customs union (CU)

	EU Single Market	CU & full alignment	Customs Union	Free trade agreement	
Capital, labor & services * Barriers to full mobility	No	Yes	Yes	Yes	
Trade of Goods					
* Tariffs	No	No	No	Reduced	Relationships among member states in the agreement
* Rules of origin (NTB)	No	No	No	Yes	
* Need to verify compliance with regulations (NTB)	No	No (*)	Yes	Yes	
* Tariffs	Common external tariff	Common external tariff	Common external tariff	No Common external tariff	
*Trade policy	Common & centrally managed	Common & not independent	Not independent (**)	Independent	Relationships with third countries
* Particip. in decision making	Yes		No	-	

(*) No need to verify compliance if regulatory alignment is complete. If no full alignment, some kind of verification is needed.
(**) In the EU-Turkey customs union (partial CU) the trade agreements signed by the EU apply to Turkey but there is no automatic access to third country markets for Turkey (asymmetry).This does not need to be the case in other customs unions.

Table 2. Estimates of non-tariff barriers (including rules of origin)

	Non tariff barriers (ad valorem) (%)	Product	Scenario	Regions
Berden et al. (2009) Dhingra et al. (2017)	14,7	Goods & services	That time	US – EU28
Egger et al. (2015)	13,0	-	That time	US-EU
Felbermayr et al. (2017) (Ifo study)	12,2	Goods	WTO	EU27 exporter - UK
	22,7	Goods	WTO	EU27 importer - UK
Kadow (2018)	10,2	Goods	WTO	EU27 exporter - UK
	14,7	Goods	WTO	EU27 importer - UK
	10,7	Goods & services	WTO	EU27 exporter - UK
	15,2	Goods & services	WTO	EU27 importer - UK
Karapaa (2018)	9,3	Services	WTO	EU27 exports to UK
	13,8	Services	WTO	EU27 imports from UK

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