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# Brexit Beyond Tariffs:

## The role of non-tariff measures and the impact on developing countries

**Abstract**

The United Kingdom left the European Union in January 2020. During a transition period that lasts until the end of 2020, the European Union and the United Kingdom aim to determine their future trade relations. We explore quantitatively the role of non-tariff measures (NTMs), including regulatory measures such as sanitary and technical requirements, in shaping the United Kingdom's future trade relations with the European Union and the impact on developing countries. We simulate the possible impacts of Brexit using a panel data gravity model and compare the European Union membership effect with the effects of free trade agreements and customs unions.

We find that there is a significant European Union membership effect well beyond zero tariffs, an effect we do not find for the other two agreements. We interpret the effect above and beyond tariffs as the European Union's impact on NTMs. The economic effects for the United Kingdom, the European Union and developing countries are about 2.5 times larger in the scenario that takes rising trade costs related to NTMs in addition to potentially rising tariffs into account. A potential increase of tariffs between the United Kingdom and the European Union and rising trade costs related to NTMs could decrease United Kingdom's exports to the European Union by 14 per cent. Even in the case a "standard" free trade agreement is signed, such exports could drop by 9 per cent. Exports from developing countries into the United Kingdom, and to a much smaller extent into the European Union, could increase if the United Kingdom would not increase its tariffs for third countries.

**Key words:** Brexit, non-tariff measures, regulations, developing countries



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## 1. Introduction

At the end of January, the United Kingdom of Great Britain and Northern Ireland left the European Union. During a transition period lasting until the end of 2020, the United Kingdom will continue to be a member of the single market, and apply and be bound by all European Union laws and regulations. During this period, the European Union and the United Kingdom aim to negotiate a free trade agreement. It is unclear whether or not, and if so, what type, of future trade agreement the United Kingdom may have with the European Union.

“The question for the rest of 2020 is whether the UK and the EU can agree a deeper trading relationship on the lines of the free trade agreement the EU has with Canada, or whether the relationship will be based simply on the Withdrawal Agreement deal agreed in October 2019, including the Protocol on Ireland / Northern Ireland. In either event the UK will be leaving the single market and the customs union at the end of this year and stakeholders should prepare for that reality.”

*Published 3 February 2020. From: Prime Minister's Office, 10 Downing Street and The Rt Hon Boris Johnson MP*

Numerous efforts have been made by governments, think tanks, and independent researchers to quantify the trade and income effects of the United Kingdom leaving the European Union (Brexit). Since the shape of future trade relations between the United Kingdom and the European Union as well as United Kingdom's future trade policy strategy remains unclear, quantitative analysis must necessarily be based on hypotheses. Assumptions that have been made reach from United Kingdom's single European Union market membership such as Norway, customs union membership such as Turkey, United Kingdom being an open economy with zero tariffs, various free trade agreements such as the European Union-Canada agreement to most-favored nation terms available to all World Trade Organization members (e.g. Dhingra et al., 2017; Nicita et al., 2019; Vanzetti, 2017).

Against this background, this paper aims to explore an under-researched area in the quantitative literature on merchandise trade, namely the role of non-tariff measures (NTMs) in shaping the United Kingdom's future trade relations with the European Union. NTMs include regulatory measures such as sanitary and technical requirements that have primarily non-trade objectives such as the protection of public health, safety or the environment, while affecting trade de facto.

Our particular focus is on NTMs because much of the public debate on Brexit has revolved around tariff-related issues, even though NTMs are viewed by most firms and analysts as the key factors mediating market access in the current world economy. On average, NTMs are three times more important for trade costs than tariffs (UNCTAD, 2013) and they disproportionately affect smaller companies (Fontagné et al., 2015 and Fugazza et al., 2017). Furthermore, NTMs are likely to become a contentious issue in the upcoming trade talks. The United Kingdom Prime Minister, Boris Johnson, in a speech on 3 February 2020 pushed to diverge from key European Union regulations. The Prime Minister outlined his priorities for the imminent negotiations, suggesting there was “no need” for a free trade treaty to compel the United Kingdom to adhere to Brussels' regulations.<sup>1</sup>

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<sup>1</sup> Prime Minister Boris Johnson's speech in Greenwich: 3 February 2020. Available at <https://www.gov.uk/government/speeches/pm-speech-in-greenwich-3-february-2020>.

There is no certainty as to what form that regulatory relationship might take. We therefore simulate the possible impacts of leaving the European Union using a panel data gravity model for 1990-2015 to assess the trade promoting European Union membership effect after controlling for the effect of zero tariffs. We compare the membership effect with the effects of standard FTAs and customs unions. This allows us to identify the relative importance of NTMs in FTAs, customs unions and the single market European Union. Our objective is not to recommend a course of action or to provide a forecast, but simply to provide information on the relative costs and benefits associated with different future choices.

We find that there is a significant European Union membership effect. Before accounting for general equilibrium effects, European Union membership is associated with a 37 per cent increase in bilateral trade among members, compared with 8 per cent for an FTA, and 13 per cent for a customs union. Controlling for tariffs, we still find a significant effect for the European Union membership but not the other trade arrangements. We interpret the effect above and beyond tariffs as European Union's impact on NTMs. A potential increase of tariffs between the United Kingdom and the European Union, and taking rising trade costs related to NTMs into account, United Kingdom exports to the European Union can drop by 14 per cent in the absence of a free trade agreement and by 9 per cent even in the case a "standard" free trade agreement is signed. Exports from developing countries into the United Kingdom and to a much smaller extent into the European Union increase. The economic effects for the United Kingdom, the European Union and developing countries are about 2.5 times larger in the tariffs and NTMs scenario than in the tariffs only scenario. Effects are strongest in agriculture, food and beverages, and wood and paper, and weaker but still significant, in electrical and machinery, metal products, chemicals, and textiles and apparel.

The paper proceeds as follows. Section 2 provides a general discussion of the ways in which NTMs can affect trade, and discusses differences in the ways in which NTMs are treated in the European Union Single Market for goods versus in more standard trade agreements, or under the WTO. In Section 3, we use that discussion to motivate a simple and transparent approach to quantification, which is set out in full detail in the Technical Appendix. Section 4 summarizes results, then Section 5 presents our conclusions, and discusses the policy implications.

## 2. What are NTMs, why do they matter and how are they addressed?

Realizing the proliferation and rising importance of NTMs, UNCTAD has worked on the topic since the 1980s. In 2006, UNCTAD established the Group of Eminent Persons on Non-Tariff Barriers (GNTB) and a Multi-Agency Support Team (MAST)<sup>2</sup> to develop a definition and a revised classification of NTMs to facilitate strengthening the transparency and understanding of NTMs.

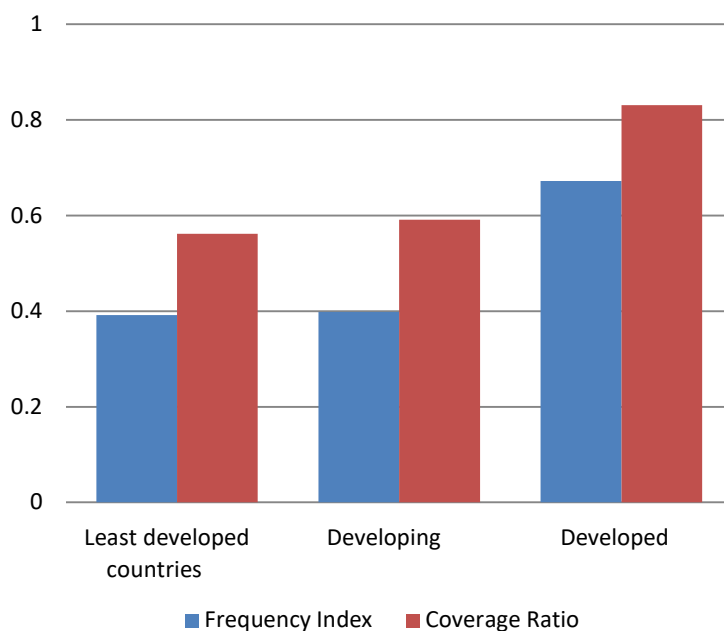
NTMs are defined as policy measures other than ordinary customs tariffs that can potentially have an economic effect on international trade in goods, changing quantities traded, or prices or both (UNCTAD, 2010). The definition of NTMs is distinctly neutral: it

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<sup>2</sup> Besides UNCTAD, these include the Food and Agricultural Organization (FAO), the International Monetary Fund (IMF), the International Trade Centre (ITC), the Organization for Economic Cooperation and Development (OECD), the United Nations Industrial Development Organization (UNIDO), the World Bank and World Trade Organization (WTO).

does not judge regarding the impact on trade or welfare, nor about the legality of a measure. NTMs include regulatory measures protecting health safety and the environment as well as traditional trade policy measures such as quotas and non-automatic licensing. Regulations affect most of the products that we encounter in our daily lives: packaging requirements and limits on the use of pesticides ensure safe food; restrictions on toxins in toys protect our children; mandatory voltage standards for household plugs enable regional mobility; and emission standards for cars limit climate change (UNCTAD and World Bank, 2018). In developed countries, more than 80 per cent of trade is affected by non-tariff measures (Figure 1) and in the European Union more than 90 per cent.

Figure 1. Non-tariff measures usage



Source: UNCTAD TRAINS database

As the definition comprises a wide array of policies, the MAST group developed a common language on NTMs which became an internationally agreed and recognized classification (United Nations Statistical Commission, 2019). The International Classification of NTMs (UNCTAD, 2019) has 16 chapters of different measure categories (Table 1). It distinguishes between import and export related NTMs and technical and non-technical measures. Technical measures comprise Sanitary and Phytosanitary (SPS) measures and Technical Barriers to Trade (TBT) and are the majority of NTMs. These measures are imposed for objectives that are not primarily trade-related: for example, human, plant and animal health, and the protection of the environment. Such measures cannot be eliminated. Even if equally applied to domestic producers, they nevertheless regulate international trade and are thus considered NTMs. Non-technical measures include contingent protection like antidumping or countervailing duties, licensing, and price control measures, are relatively less common nowadays and could be negotiated away to a large extent in a free trade agreement.

Table 1. International Classification of Non-Tariff Measures (NTMs)

<b>Imports</b>	Technical measures	A	Sanitary and phytosanitary measures
		B	Technical barriers to trade
		C	Pre-shipment inspection and other formalities
	Non-technical measures	D	Contingent trade-protective measures
		E	Non-automatic import licensing, quotas, prohibitions and quantity-control measures and other restrictions not including sanitary and phytosanitary measures or measures relating to technical barriers to trade
		F	Price-control measures, including additional taxes and charges
		G	Finance measures
		H	Measures affecting competition
		I	Trade-related investment measures
		J	Distribution restrictions
		K	Restrictions on post-sales services
		L	Subsidies and other forms of support
		M	Government procurement restrictions
		N	Intellectual property
		O	Rules of origin
<b>Exports</b>	P	Export-related measures	

Source: UNCTAD (2019).

The MAST classification does not cover procedural obstacles and frictional barriers like poor trade facilitation (de Melo and Shepherd, 2018). This note takes an expansive view of what constitutes an NTM, consistent with the definition given above, but not limited to the categories identified in the MAST classification.

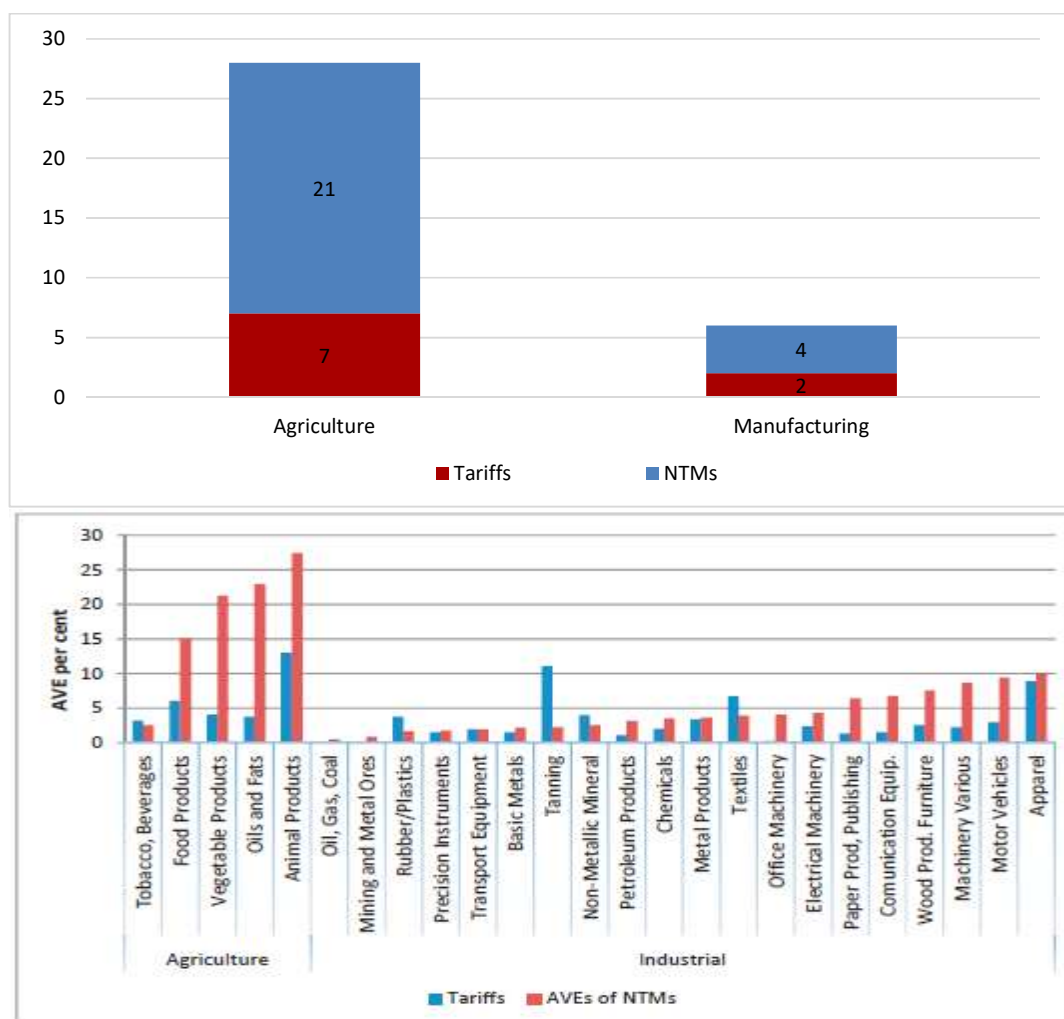
Given that there are no customs tariffs applied on intra-European Union trade, the only measures maintained by member States that could conceivably affect goods trade flows among them are NTMs. Most importantly, member States can issue their own SPS measures and TBTs, and their national standards agencies can issue voluntary standards affecting agricultural and industrial products, as long as they respect European Union-wide legislation. Similarly, other types of national regulations in goods markets could conceivably affect the prices or quantities of traded goods.

From an economic perspective, there are potentially three kinds of costs associated with such measures.

1. First, there is a direct compliance cost: if product requirements differ across countries, a producer in Country A must retool and redesign their production process in order to be able to ship compliant goods to Country B.
2. Second, there is often an indirect cost involved in demonstrating compliance through testing and certification.
3. Third, the indirect time cost of demonstrating compliance: border delays that result from the need to produce paperwork and demonstrate compliance to the satisfaction of border officials.

These costs are significant. One approach is to assess costs related to NTMs as ad valorem equivalents, i.e. as a share of the value of the traded good. UNCTAD (2013), UNCTAD & World Bank (2018) and ESCAP & UNCTAD (2019) find that costs associated with NTMs are often 3 times higher than tariffs (Figure 2). And, costs are disproportionately and sometimes prohibitive high for small and medium size enterprises (Fugazza et al., 2017).

Figure 2. Comparison of trade costs related to NTMs and tariffs



Source: UNCTAD (2013) and UNCTAD & World Bank (2018).



Free trade agreements increasingly try to address these costs (Baccini et al., 2011). Regulatory cooperation and harmonization efforts, including the development of international standards such as Codex Alimentarius, aim to address the first cost category, mutual recognition and equivalence agreements target the second cost category and trade facilitation efforts, including the WTO Trade Facilitation Agreement, the third category.

The European Union has four broad models with third countries.

- First, with countries with which the European Union has no FTA, WTO rules apply. Trade regulations have to follow certain principles such as those specified in the WTO TBT and SPS Agreements. They provide for, for example, the requirement of scientific evidence, use of international standards and that regulations must not be more trade protective than necessary. However, in reality, regulations are often very different causing significant costs to traders (ESCAP and UNCTAD, 2019).
- Second, the European Union has more than 40 free trade agreements notified to the WTO. Free trade agreements often include provisions to strengthen regulatory cooperation. The free trade agreement with Canada, for example, includes a chapter on technical barriers to trade that encourages cooperation in technical regulations. CETA includes a protocol that establishes the mutual recognition of European and Canadian Accreditation Bodies and Conformity Assessment Bodies by accepting the results of each other's conformity assessment certificates in areas such as electrical goods. The United Kingdom Prime Minister has mentioned this FTA as a possibility for the future European Union – United Kingdom relation.<sup>3</sup>
- Third, Iceland, Liechtenstein and Norway are part of the European Union Single Market (European Economic Area, EEA), sharing all technical regulations. It is an option very close to being a European Union member but requires committing to its four freedoms: free movement of goods, services, capital and labor (Sampson, 2017). The European Union – Switzerland bilateral relationship is somewhat similar though it does not imply sharing all technical regulations.
- Fourth, the European Union has a customs union with a few countries, for example with Turkey on industrial goods. This implies common external tariffs and foresees that Turkey aligns itself with the European Union Acquis Communautaire in essential internal market areas. However, the WTO rules on customs unions do not require eliminating restrictive regulations of commerce under GATT Articles XI and XX, which provide for exceptions to the elimination of quantitative restrictions and discrimination between countries where it is necessary for example for the application of standards or regulations for

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