

# The role of habit formation in offsetting the costs of non-tariff measures in agrifood trade

*Carmen Fillat-Castejón – University of Zaragoza (Spain) and IEDIS  
Ana Isabel Sanjuán López – CITA-Aragón (Spain)*

## **ABSTRACT**

Agrifood trade is subject to a myriad of Non-Tariff Measures (NTMs), in particular, sanitary and phytosanitary (SPS) and technical barriers to trade (TBT) regulations pursuing the legitimate goal of safeguarding food safety, the environment as well as the health of people, plants and animals. Fulfilment with NTMs entail compliance costs that restrict imports; however, meeting quality requirements imposed by the importer can also be demand enhancing. This paper proposes a demand-side reinforcement mechanism based on past compliance of imports and we hypothesise that the NTM cost effect on trade may be offset by the formation of demand habits for NTM-compliant products.

Using a gravity model, we estimate the trade effects of complying with current NTMs as well as the demand-intensification effect due to recent compliance and habit formation. We adopt a treatment effect analysis to estimate the partial effects of NTMs in agrifood imports. Our sample comprises 722 agrifood product lines defined at the 6-digit HS level and aggregated to the 2-digit level, conforming a three-dimensional panel data with bilateral flows that jointly account for 99% of trade, over the entire period 2001-2016.

Estimates are carried out for different types of technical NTMs, classified into prohibitions, behind-the-border and at-the-border. In addition, the effects of both behind-the-border and at-the-border SPSs and TBTs are estimated separately. Our results show that habit formation is a significant mechanism that promote agrifood imports. In particular, for SPSs and TBTs, both behind and at the border, we find an import-promoting net effect. Interestingly, in absence of a habit formation, the trade costs imposed by behind the border SPS and TBT measures are amongst the highest across types of NTMs.

**KEY WORDS:** habit formation, demand-enhancing effects, gravity model, non-tariff measures