

Risks and Opportunities for the EU Agri-food sector in a possible EU-US Trade Agreement

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Appendix



Robustness

Ad valorem equivalents of non-tariff measures

Non-tariff measures (NTMs) are complex and varied, as emphasized in the report. To fully understand their possible consequences, a case study would be needed for each type of NTM for each product or group of products. This is not a practicable option for a macroeconomic assessment such as the one provided in the simulation exercise presented in the report. Instead, the best suited approach in this case is to rely upon AVEs in order to capture the essence of their possible economic impact. This approach is customary for such large-scale economic assessments of NTMs (see e.g. Kee et al., 2009): it relies upon strong but well identified simplifying assumptions, discussed and tested in an extensive literature, and no credible alternative exists at this point, to the best of our knowledge. Yet, this method is subject to several caveats, worth keeping in mind while interpreting the results:

- First, a dummy variable is used for coding the NTM and set to one if the importing country notifies at least one SPS or one TBT measure on a given product (0 otherwise). This treatment, customary in studies on this issue, does not take into account the number of NTMs set by the importer on a product (provided it is larger than zero), nor their degree of restrictiveness.
- Second, only NTMs that have been effectively notified (not every NTM is) by importing countries to the WTO up to the end of 2012 are taken into account.
- Third, since the product codes are often missing in the WTO data, we use the ones provided by the Centre for WTO Studies of the Indian Institute of Foreign Trade (<http://wtocentre.iift.ac.in/>). However, such codes are available only at the 4-digit level of the Harmonized System (HS) classification. We therefore assume that all HS 6-digit products within a given HS 4-digit sector are affected by the NTM.

Against this background, this short note intends to give insights about the robustness of our assessment. Below, we provide some comparisons between our mean AVEs and the ones used in previous studies. Comparisons are made for agriculture and manufacturing with Fontagné et al. (2013) and Ecorys (2009). First, recall that the mean may be driven by some extreme values, and as shown in Table A.1, the median is much lower than the mean value.

Comparisons are presented in Table A.2. For agriculture, results suggest that our mean AVE for the USA is close to the one in Fontagné et al. (2013) and much smaller than the one reported by Ecorys (2009). For EU25, our mean AVE lies in between the ones used on both studies. For manufacturing, our mean AVE is below the ones mentioned in both studies.

Table A.1: Summary statistics on our AVEs

	USA		EU25	
	Agriculture	Manufacturing	Agriculture	Manufacturing
Mean	47.8	11.4	53.6	13.4
Median	22.5	4.3	37.5	6.9

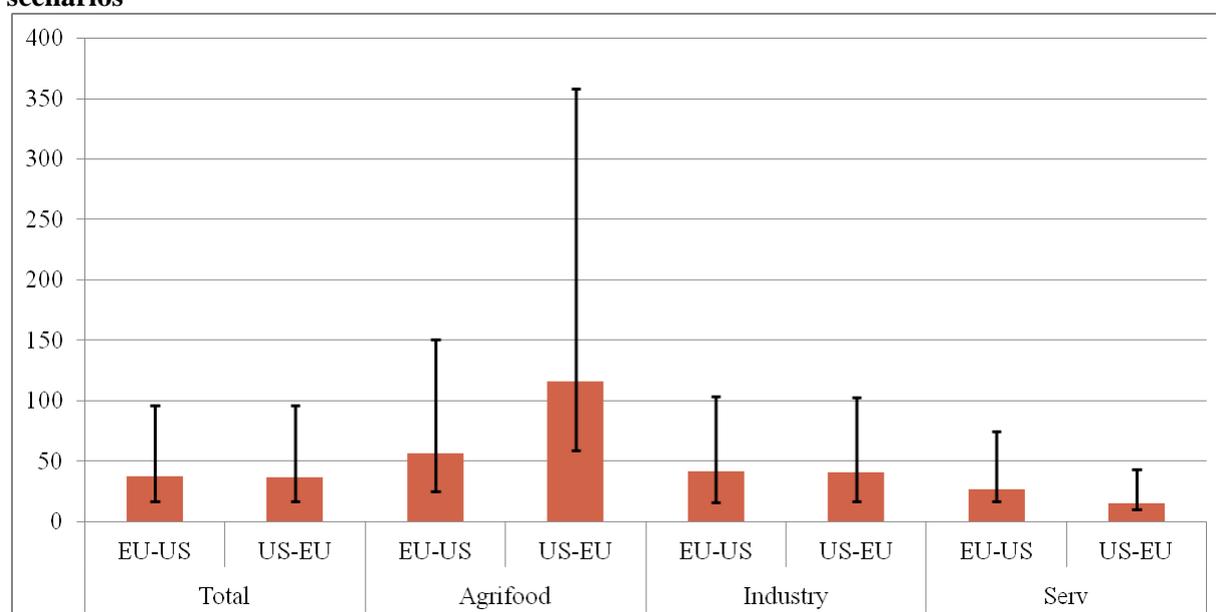
Agricultural products include products covered by the WTO Agreement on Agriculture plus HS Chapter 3 (fish and fish products).

Table A.2: Comparison with some other studies

	USA		EU25	
	Agriculture	Manufacturing	Agriculture	Manufacturing
Fontagné et al. (2013)	51.3	32.3	48.2	42.8
Ecorys (2009)	73.3	23.4	56.8	19.3

Magnitude of cuts in non-tariff measures

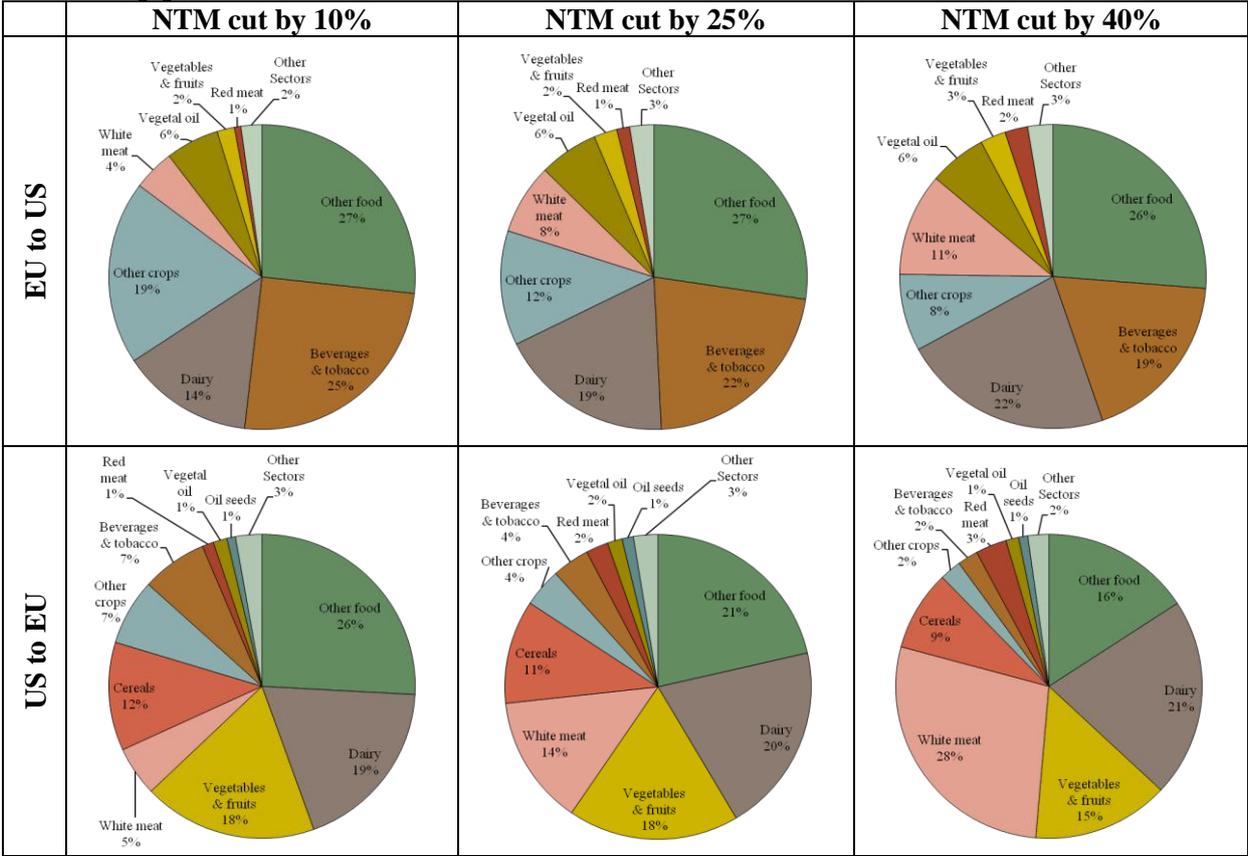
Another key assumption is the amount of cut in ad-valorem equivalents for NTMs. Our central scenario assumes a 25% cut, based on estimations conducted by Ecorys (2009) – it corresponds to cutting half of the measures identified as “actionable” by the entrepreneurs interviewed. Given the importance of such an assumption, we provide sensitivity analysis around this central value. Namely, we consider our central scenario, but with a cut in ad-valorem equivalents by 10% and 40% and present a few key results.

Figure A.1: Change in bilateral trade by broad sector, 2025, volume (%), alternative NTM scenarios

Note: The red bar represents the change in exports in the reference scenario (25% cut); the top of the black bar represents a cut in NTM by 40%, while the bottom corresponds to a cut by 10%.

Figure A.1 illustrates that the amount of reduction in NTM is a key element driving our results. It also emphasizes that the agri-food sector is the most sensitive to this assumptions, given the frequency and level of AVEs in these sectors. However, the sign and relative magnitude of the effects between the two sides of the Atlantic are preserved.

Figure A.2: Sector distribution of increases in bilateral agri-food exports between the EU and the USA, p.p., 2025, volume, alternative NTM scenarios



Note: For instance, the first panel states that the “Beverages & tobacco” sector represents 25% of the increase in EU exports to the US due to the TTIP agreement, in case of a cut of NTM by 10%. This share goes to 19% of EU exports to the US if the cut in NTM level is 40%.

The sector distribution of bilateral export creation is not strongly modified throughout the three scenarios considered here (Figure A.2). Concentration remains a key feature, with the same 5 sectors in the EU and the US still representing the majority of trade creation, even though the respective importance of these sectors changes somewhat. The most striking result is the strong sensitivity of white meat exports to NTMs: stronger cuts would mean far larger export creation in this sector, especially from the US to the EU, up to a point where this would be the most important one, would NTMs be cut by 40%. This relatively strong sensitivity is also found for red meat, but for low estimated levels of export creation in all cases. Conversely, other crops exhibit relatively limited sensitivity to NTMs, and this is also the case, to a lesser extent, US exports of cereals.

Table A.3: Variation in agricultural value added in EU and US, 2025, volume (%), alternative NTM scenarios

Cut in NTM:	10%	25%	40%
USA	0.2	0.4	1.0
Austria	-0.3	-0.6	-1.3
Benelux	-0.4	-0.8	-1.7
Balkan	0.3	0.2	0.0
Visegrad	-0.1	-0.2	-0.6
Nordic	-0.2	-0.4	-1.1
Baltic	-0.5	-1.3	-2.7
France	-0.2	-0.6	-1.5
Germany	-0.4	-0.7	-1.4
Ireland	-0.2	-0.8	-2.1
Italy	-0.2	-0.4	-1.2
Poland	0.0	-0.1	-0.5
Portugal	-0.3	-0.6	-1.0
Spain	-0.4	-0.7	-1.4
UK	-0.4	-0.8	-1.4
total EU	-0.2	-0.5	-1.2

Finally, our conclusions on agricultural value added are not very sensitive to assumptions on the magnitude of NTM cuts. Table A.3 shows that the more NTMs are cut, the more the effect on agricultural value added is amplified, without being spectacular even in a very ambitious scenario (less than 3% variation when NTM are cut by 40%).

References

Ecorys (2009), “Non-Tariff Measures in EU-US Trade and Investment – An Economic Analysis”, Study for the European Commission, DG Trade.

Fontagné, L., J. Gourdon and S. Jean (2013), “Transatlantic Trade: Whither Partnership, Which Economic Consequences”, CEPII Policy Brief, N°1.

Kee H. L., Nicita, A. and M. Olarreaga (2009), “Estimating trade restrictiveness indices”, *Economic Journal*, vol. 119, p. 172-199.