

Response to Editor's Letter on EEREV-D-23-00148

“The negative impact of disintegration on trade: the case of Brexit”

We would like to thank the Editor for offering us the opportunity to revise and re-submit our manuscript to *European Economic Review*. We have revised the paper based on the comments and suggestions of the reviewers and the editor. In our view, the revision has led to a substantially improved paper. The reports for the reviewers explain in detail how we have addressed the comments posed by them.

Let us summarize the main changes in the paper:

- The revised version of the paper uses a data set that covers the entire 2022. In the original version of the paper, we only covered the first half of 2022.
- Following the request of both reviewers, we have expanded the analysis on the extensive margin of trade exploring the impact of the TCA on the number of traded products and Spanish firm's entry and exit into the UK at the product level.
- Following the recommendation of both reviewers, all empirical analyses are now performed using data with a quarterly frequency. We also show that the results are robust to using a lower transaction value threshold.
- Following the request of Reviewer 1, we devote more space to explain the rules of origin stringency index that we developed for this study. Furthermore, as suggested by the reviewer, we include summary statistics, make reference to the number of products affected by rules of origin, and the share of each rules of origin category in total Spanish trade with the UK over time.
- Following the recommendation of Reviewer 2, we expand our discussion of the potential impact of technical standards on Spanish-UK trade after the TCA. In particular, we explore whether products that were under the mutual-recognition scheme when the UK was a member of the EU's single market had a stronger reduction in trade after the TCA.
- Following Reviewer 2's suggestion, we have expanded the sample of countries from 44 to 61.
- Following your recommendation, we show that the results for the intensive margin of trade are robust to using a PPML estimation (Table A.8 in the online Appendix). However, we should note that the PPML estimation does not include zero trade flows. This estimation would be computationally unfeasible, given that the number

of observations would raise to 923,528,423,664 ($53,546 \text{ firms} \times 7,854 \text{ products} \times 61 \text{ countries} \times 9 \text{ years} \times 4 \text{ quarters}$).

- Following your recommendation, we carefully reviewed the customs statistics to ensure that there are no statistical breaks in the data series. Table 1 below shows the number of Spanish firms that trade with the UK and the total value traded in the Customs database and our sample. From 2021 onward, Spanish trade with the UK must be recorded using the Extrastat system. As a result, almost all transactions with the UK must be registered, drastically increasing the number of Spanish exporters and importers operating with the UK that are recorded by Customs. However, the total value of trade flows is hardly affected, since the former Intrastat trade recording system only excluded low-value transactions.¹ Furthermore, our paper addresses the break in the number of traders from 2021 onward in two different ways. First, we set a 10,000 euro threshold to include a transaction in our data set. This removes small-value Spanish exporters and importers to the UK that emerge switching from the Intrastat to the Extrastat recording system. For example, in Table 1 the increase in the number of Spanish exporters and importers to the UK from 2020 to 2021 is greater in the All column than in the Sample column. Second, in our regression analyses, we only include the Spanish firms that traded with the UK before 2021.
- Spanish firms trading with Northern Ireland still use the Intrastat system. However, our data set does not provide us with information to discriminate between trade flows with Northern Ireland and the rest of the UK.

¹Table 1 is included as Table A.2 in the online Appendix.

Table 1: Spanish trade with the UK: firms and value

Year	Exports				Imports			
	All		Sample		All		Sample	
	Firms	Value	Firms	Value	Firms	Value	Firms	Value
2014	11839	16630	7440	16442	22045	11223	7205	10907
2015	11672	18220	7480	18013	28562	12691	7173	12361
2016	11790	20077	7489	19862	32447	11193	7133	10852
2017	11707	18740	7432	18519	28241	11381	7116	11038
2018	11735	18581	7413	18348	20334	11516	7041	11163
2019	12010	19890	7581	19651	18857	11711	7049	11346
2020	12117	17229	7536	16982	18313	9542	6825	9200
2021	64350	18873	9576	17942	115291	8702	6769	7879
2022	49429	21273	9738	20226	86624	11237	6916	10675

Note: Values are in millions of euros. The Sample includes firms trading with the UK at least one transaction equal to or above 10,000 euros per year. Source: Spanish Customs database.

We thank you again for your comments and hope that you find the revision satisfactory.

Sincerely,

Juan de Lucio, Raúl Mínguez, Asier Minondo, and Francisco Requena